



Department Application
Bronze and Silver Award



ATHENA SWAN BRONZE DEPARTMENT AWARDS

Recognise that in addition to institution-wide policies, the department is working to promote gender equality and to identify and address challenges particular to the department and discipline.

ATHENA SWAN SILVER DEPARTMENT AWARDS

In addition to the future planning required for Bronze department recognition, Silver department awards recognise that the department has taken action in response to previously identified challenges and can demonstrate the impact of the actions implemented.

Note: Not all institutions use the term 'department'. There are many equivalent academic groupings with different names, sizes and compositions. The definition of a 'department' can be found in the Athena SWAN awards handbook.

COMPLETING THE FORM

DO NOT ATTEMPT TO COMPLETE THIS APPLICATION FORM WITHOUT READING THE ATHENA SWAN AWARDS HANDBOOK.

This form should be used for applications for Bronze and Silver department awards.

You should complete each section of the application applicable to the award level you are applying for.

Additional areas for Silver applications are highlighted throughout the form: 5.2, 5.4, 5.5(iv)

If you need to insert a landscape page in your application, please copy and paste the template page at the end of the document, as per the instructions on that page. Please do not insert any section breaks as to do so will disrupt the page numbers.

WORD COUNT

The overall word limit for applications are shown in the following table.

There are no specific word limits for the individual sections and you may distribute words over each of the sections as appropriate. At the end of every section, please state how many words you have used in that section.

We have provided the following recommendations as a guide.

Department application	Bronze	Silver
Word limit	10,500	12,000
<i>Recommended word count</i>		
1. Letter of endorsement	500	500
2. Description of the department	500	500
3. Self-assessment process	1,000	1,000
4. Picture of the department	2,000	2,000
5. Supporting and advancing women's careers	6,000	6,500
6. Case studies	n/a	1,000
7. Further information	500	500

Name of institution	The Open University	
Department	School of Mathematics and Statistics	
Focus of department	STEMM	
Date of application	November 2016	
Award Level	Silver	
Institution Athena SWAN award	Date: October 2016	Level: Bronze
Contact for application Must be based in the department	Professor Gwyneth Stallard	
Email	Gwyneth.Stallard@open.ac.uk	
Telephone	01908 654874	
Departmental website	http://www9.open.ac.uk/mct-ms/	

Guidance for Athena SWAN Assessment Panels

on Open University submissions

(revised November 2016)

This is a standard Guidance document that has been agreed by Athena SWAN to accompany all OU submissions. Please note that it is not included in the word count.

As a distance learning institution, the staffing structure and student body of the Open University (OU) is different from that of a conventional university. As such, the information and terminology presented in OU Athena SWAN submissions may be unfamiliar to Assessment Panels. This guidance therefore aims to give additional background information to assist panels in completing their assessment of OU submissions.

1. **Open University Academic Staff**

OU Academic staff fall into two categories: *Central Academics* and *Regional Academics*.

The majority of the OU's academic staff are based on campus in Milton Keynes. These staff are referred to as **Central Academics** and carry out teaching, administration and research like academics at other institutions. Together with Research Associates and Fellows, they form the OU's research base. However, since the OU is a distance learning institution, the teaching role of Central Academics is different from academics at other universities. Rather than directly teaching students, Central Academics develop teaching materials and manage the delivery and assessment of the modules they have written. Direct teaching of students is the responsibility of Associate Lecturers (see below).

Since the OU provides education to students across the UK, the OU also employs almost 200 **Regional Academics** (also known as Staff Tutors) who are employed by individual Schools on the same salary scale as Central Academics. They also carry out teaching, administration and research but have different terms and conditions. In particular they are allowed less research time than Central Academics, and have a higher administrative load, because part of their role is to appoint and manage Associate Lecturers.

Associate Lecturers

The OU employs approximately 6000 Associate Lecturers (ALs) located across the UK to carry out direct teaching of undergraduate and taught postgraduate students. ALs are appointed on short term part-time contracts, and on a module-by-module basis, with many holding substantive posts with other employers. Their contracts with the OU do not include production of course materials or research, and ALs are managed at Faculty level rather than by Schools. Since the contracts and career development of ALs remain beyond the responsibility of Schools, there is limited scope for including this staff group within School Athena SWAN submissions. However, as ALs are the main point of contact with the university for students, School submissions will provide basic data including a gender analysis of ALs who are employed to work on relevant modules.

2. OU Undergraduate and Taught Postgraduate Students

The OU is the largest UK University, with over 186,000 undergraduate and taught postgraduate students, all of whom study part-time and at a distance. There are also around 1000 full-time and part-time Postgraduate Research students. The University operates an open access policy, meaning it accepts all applicants who apply to study at undergraduate level, without any academic prerequisites. Most Open University students are in employment and are mature students (only 5% of students are under 20). They are based in all parts of the UK, and there are also 10,000 non-UK based students. Around 20,000 OU students (i.e. more than one in ten) have declared disabilities.

Study mode

Students are taught via the OU's unique model of distance learning known as 'supported open learning'. Course materials are studied via a number of different media, including both on-line and printed material. Students are allocated to an Associate Lecturer who provides academic expertise, guidance and feedback individually and as part of a tutor group. Tutor groups meet via on-line conferencing as well as at face to face tutorials, which usually take place in the evenings or at weekends. There are also residential schools for some modules. Full time funded PhD students are based at the Milton Keynes campus while part time research students (who are usually self-funded) can attend supervision and research seminars either face to face or remotely.

Modules and Qualifications

Historically, OU students have registered on discrete modules which they use to build up credits towards a qualification. Since 2012, the OU has begun to move towards qualification-based, rather than module-based, degrees, with students registering for a named qualification from the outset. However, as this is a relatively recent development, there remain a large number of students who are still part way through a module-based pathway, as students usually take at least 6 years to complete an undergraduate degree. Moreover, individual modules may be common to a number of different qualifications, thus individual Schools often contribute towards degree attainment outside of the named qualifications reported in the data.

For these two reasons, panels should note that OU School submissions will consider and reflect on student data at a module level, as well as qualification outcomes.

Table 1. Summary of academic and research staff categories

Staff Category	Contract type	Managing Unit	Duties	Location
Central Academic	Usually permanent either part time or fulltime	School	Teaching Administration Research	Milton Keynes
Regional Academic	Usually permanent – either part time or full time	School	Mainly administration and teaching plus some Research	Either home based or at regional/ national centre
Researcher (Associate and Fellow)	Usually fixed term – either part time or full time	School	Research only	Milton Keynes
Associate Lecturer	Fixed term part time	Faculty Student Support Team	Teaching only	Home based

3. Flexible working

The nature of the OU's teaching and learning model provides the flexibility for students to study where and when they choose, to fit in with jobs, families and other commitments. This also means that academics and researchers have always had a high level of flexibility about their working arrangements and this approach continues to be a unique part of the working culture of the OU. Therefore panels should be aware that this is the reason that there have been very few formal applications for flexible working among academic and research staff. Regional Academics make particularly extensive use of flexible working because much of their work with the ALs necessarily takes place outside conventional office hours. For Regional Academics, remote participation at meetings is also facilitated and encouraged using audio and video conferencing, so it is often not necessary to be physically at the Milton Keynes campus.

1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT

Recommended word count: Bronze: 500 words | Silver: 500 words

An accompanying letter of endorsement from the head of department should be included. If the head of department is soon to be succeeded, or has recently taken up the post, applicants should include an additional short statement from the incoming head.

*Note: Please insert the endorsement letter **immediately after** this cover page.*



The Open
University

**School of Mathematics and
Statistics**

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As Head of School, I strongly endorse this application for an Athena SWAN Silver award. I confirm my (and my Management Team's) continued commitment to improving the School's working environment.

Having been involved in both the institutional and the departmental SAT, building on our successful Athena SWAN activities was high on my priority list when I took over as Head of Department (now School) in 2014. As one of my first actions, I discussed the composition of the Management Team, which we restructured to improve the gender balance and to include the Athena SWAN lead as a permanent member. Progress against the Action Plan is a standing item at Management Team meetings.

We have had some notable successes. We have built on our strong track record of supporting the career development of women in the Pure Mathematics Group, with a second woman in the group being promoted to Professor. We have also rolled out their good practice to the Statistics Group where the lack of women progressing to senior positions was previously a concern. As a result, all the female Central Academics in the Statistics Group have been promoted to Senior Lecturer. Women have been encouraged to apply for leadership positions, partly to support their promotion cases, and have been appointed to roles such as Head of Group, Director of Teaching and Staff Tutor Lead. They now comprise half the Management Team.

Another area of concern in our Bronze application was the small number of female students on our MSc. We introduced steps to make the entry process more transparent and improved advertising, resulting in an increased proportion of women registering. We now need to make sure that this translates into increased proportions of women graduating.

One of our main priorities has been to support the career development of our regional academics. This is currently of particular concern as many of them are becoming home workers following the University's decision to close the regional offices. We produced an influential report leading to a Faculty plan for practical support and a particular focus of our new Action Plan will lie on developing scholarly activities, placing these on an equal footing with research. This will provide an academic community for regional academics, and support staff through the new teaching route for promotion.

The School strongly supports the proposed Action Plan, which I was involved in putting together. I will personally lead on some of the actions, and will attend all meetings of the SAT to keep on top of progress. The School will provide administrative support and funding for related events.

We recognise the importance of ensuring that all staff have the opportunity to realise their full potential. Athena SWAN is a high profile part of the School's strategic priorities and is embedded in all aspects of our plans and activities. Athena SWAN activities are recognised in our workload planning tools, and I will ensure that individuals have appropriate space in their workload plans to deliver the objectives.

A handwritten signature in black ink, appearing to read 'Uwe Grimm', on a light-colored background.

Professor Uwe Grimm
Head of School
School of Mathematics and Statistics

Word count: 496

2. DESCRIPTION OF THE DEPARTMENT

Recommended word count: Bronze: 500 words | Silver: 500 words

Please provide a brief description of the department including any relevant contextual information. Present data on the total number of academic staff, professional and support staff and students by gender.

The School of Mathematics and Statistics (M&S) consists of four groups: Pure Mathematics (including History of Mathematics), Applied Mathematics, Statistics and a smaller group in Mathematics Education. We received an Athena SWAN Bronze award in November 2013.

Following major restructuring across the OU, the M&S Department became a School (with some new responsibilities and increased administrative support) as part of the new STEM Faculty on 1st August 2016. Since this restructuring is still in progress, this application is based on the previous Department structure, whilst the Action Plan reflects the positive impact of the new School structure.

The School has 29 Central Academics (34%F) based at the pleasant campus in Milton Keynes in a recently refurbished building. Most Central Academics have individual offices. There are 4 Research Associates (50%F) sharing two offices, and 11 full-time PhD students (27%F) in three offices. There is a well-equipped and well-used seminar room and common room and a flexible and supportive working environment as noted in the 2013 UK Benchmarking Survey.



The Alan Turing Building – home to the School of Mathematics and Statistics

The School has 16 Staff Tutors (75%F) with responsibility for appointing and managing 435 part-time Associate Lecturers (ALs) (40%F) who directly support students. ALs are discussed further in Section 7.

Staff Tutors are currently based in the regional / national offices, although many are becoming homeworkers due to the University's decision to close most of these offices. Staff Tutors are a particular focus of our current Action Plan and the School is working hard to support them through a difficult period developing new activities to support career progression and maintain a sense of academic community.

Because Central Academics (CA) and Staff Tutors (ST) have different contracts, they have been treated separately in this submission. In both groups (especially Staff Tutors), the proportion of women is higher than the national average (23%F) in mathematics and statistics.

	Female	Male	%Female
Professor	2	7	22%
Senior Lecturer (CA)	6	7	46%
Lecturer (CA)	2	5	29%
Senior Lecturer (ST)	5	2	71%
Lecturer (ST)	7	2	78%
Research Associate	2	2	50%

Table 1: Academic and research staff composition (March 2016)

Two administrators (100%F) support the School working alongside 12 curriculum staff (92%F) who deal with the administrative aspects of our teaching. There is a close relationship between these staff and the academics and, indeed, they have played a key role in enabling progress on our Action Plan. They are included in the application – with an awareness that there are limitations on actions that we can take since their line management sits outside the School.

Grade	Female	Male	%Female
8	1	0	100%
7	6	0	100%
6	2	0	100%
5	4	1	80%
Total	13	1	93%

Table 2: Professional and support staff composition (March 2016)

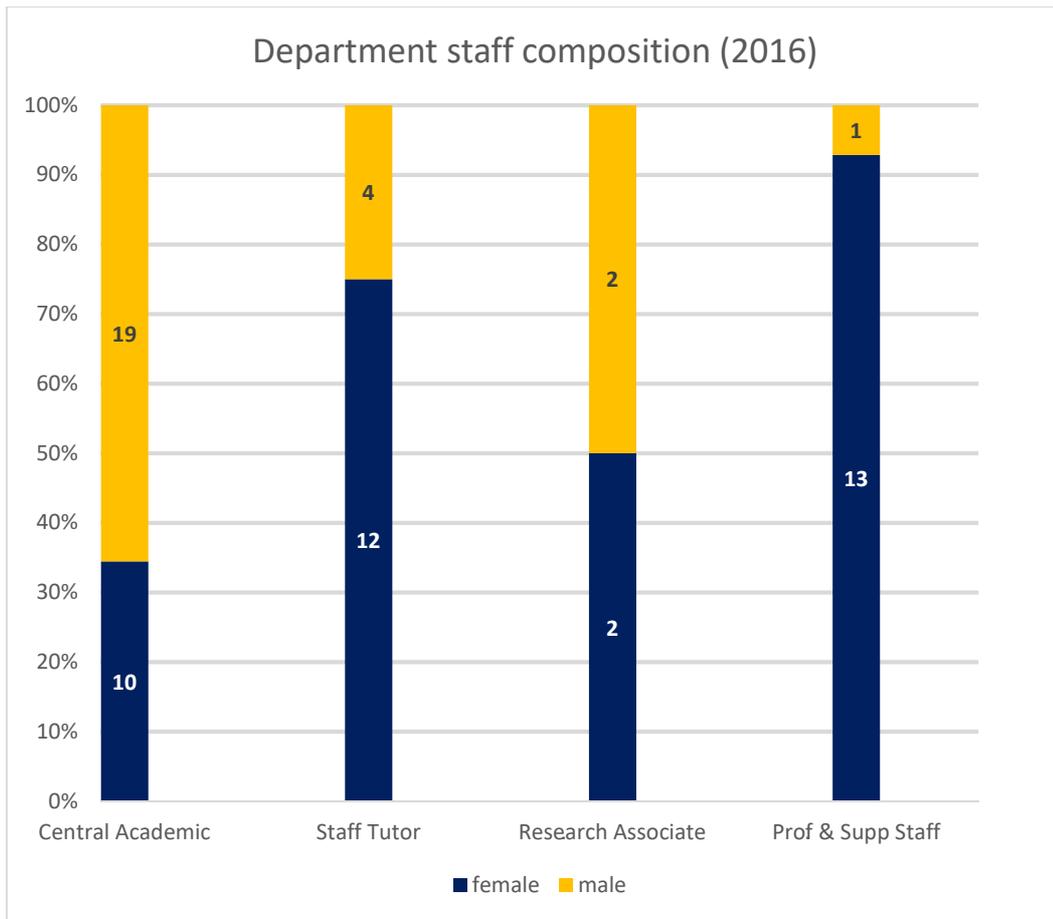


Figure 1: Department Staff Composition (March 2016)

We offer over 20 undergraduate modules at different levels which contribute to a variety of degrees. Level 1 modules annually register several thousand students, many of whom progress to modules in other disciplines. There are around 300 students on each level 3 module.

We also offer a range of taught postgraduate modules. The largest programme is the MSc in Mathematics, with around 60 students studying each module annually.

We have full-time PhD students on campus, funded by competitive studentships, and self-funded part-time PhD students, mostly living at a distance.

	Female	Male	%Female
Undergraduate	1850	2955	38%
Taught postgraduate	70	300	19%
Full-time PhD students	3	8	27%
Part-time PhD students	0	9	0%

Table 3: Student composition (March 2016)

Word Count for section 2: 465

3. THE SELF-ASSESSMENT PROCESS

Recommended word count: Bronze: 1000 words | Silver: 1000 words

Describe the self-assessment process. This should include:

- (i) a description of the self-assessment team

The SAT was formed in April 2013 as an expansion of the Good Practice Team. Whilst half the members remain the same giving continuity, others have moved on and been replaced by new members with fresh ideas. The proportion of Staff Tutors has increased due to the emphasis of our work on this area. Professional and support staff are represented by the most senior member of our School curriculum staff. The Head of School is always a member, with other positions being filled by asking for volunteers within different categories of staff, taking care to keep a good gender balance and range of backgrounds. Membership is agreed with line managers and accounted for in workload planning.

Name	Title	Description
Gwyneth Stallard	Professor of Pure Mathematics (Central Academic)	Chair of SAT and member of Faculty Promotion Committee. Led women in mathematics work nationally (2006-2015). Worked part-time (1999-2012).
Uwe Grimm	Professor of Mathematics (Central Academic)	Head of Department/School since 2014. Former member of University SAT and Associate Dean Research. Member of the Applied Mathematics Group.
June Barrow-Green	Professor of the History of Mathematics (Central Academic)	Responsible for the Department/ School's Level 1 modules. Member of LMS Council. Actively involved in outreach events, many aimed at women.
Toby O'Neil	Senior Lecturer in Analysis (Central Academic)	Member of University Senate and Council. Former Head of Department (2010-2014). Paternity leave in 2009.
Heather Whitaker	Senior Lecturer in Statistics (Central Academic)	Leader on major grants. Leads flexible working section of Action Plan. Maternity leave 2009 and 2012. Part-time since 2013.
Katie Chicot	Staff Tutor (Senior Lecturer)	M&S Student Support Faculty lead. Outreach focus. Leads taught postgraduate section of Action Plan. Maternity leave 2008, 2010, works part-time.
Gareth Williams	Staff Tutor (Senior Lecturer)	Formerly Departmental Programme Director, currently Deputy Director of Teaching. Member of University Senate. Leads undergraduate section of Action Plan.
Hilary Holmes	Staff Tutor (Senior Lecturer)	Experienced appraiser and probation supervisor for Staff Tutors and Maths Education Lecturers. Leads scholarship section of Action Plan.

Radka Sabolova	Research Associate in Statistics	Postdoc rep on team. Seminar organiser for Statistics group. Helped with graphical aspects of submission.
Tony Royle	PhD student in the History of Mathematics	PhD rep on team. Thesis project includes the role of women in mathematics in early aeronautics in Britain.
Gaynor Arrowsmith	Senior Teaching Manager	Grade 8 member of support staff responsible for non-academic aspects of curriculum development and delivery. Also an Associate Lecturer.
Tracy Johns	School Office Team Leader and PA to Head of School	Provides administrative support to the Department/School including arranging and taking minutes of all SAT meetings.
Simone Arthur	Senior Project Manager, Equality Charters and Benchmarking	Member of OU Equality and Diversity Team with responsibility for Athena SWAN. Supports all School submissions.

Table 4: Self-assessment Team



SAT meeting with the Dean – remote attendees on the screen

(ii) an account of the self-assessment process

In preparing our 2013 Bronze submission, we identified our main strengths and weaknesses. We divided the Action Plan into eight sections, with one or two members of staff (not always members of the SAT) responsible for implementing each section. We have four full team meetings each year and each of the eight sections are discussed in detail at least once a year. Many smaller meetings and discussions take place as actions are progressed. Section leaders include the HoD, Research Director and the Programme (Teaching) Director.

The Chair of the SAT is a member of the Management Team and has an Athena SWAN slot at each monthly meeting as well as providing input into all aspects of the work of the School. She also gives progress updates at every School meeting, ensuring regular opportunities for staff to provide input. The key points of the new Action Plan were discussed at the most recent of these.

The Chair and one other section leader (a Staff Tutor) are also members of the University SAT and this has helped to ensure that the School's Action Plan is properly linked to the University's. The Chair also regularly meets with the other School SAT Chairs providing a network for sharing ideas. The School is acknowledged as a beacon of good practice with, for example, our Head visiting other Schools to share details of our support around promotions.

Much of the Action Plan has involved consultations with staff and students and this has informed both our current work and our new Action Plan. Two of the main issues flagged in our Bronze submission were the need to support the career development of Staff Tutors and the need to investigate the low proportion of women graduating from the MSc in Mathematics. In depth surveys have been carried out of Staff Tutors, and of our alumni and our level 3 undergraduates. These have led to new initiatives which continue to be developed.

Staff have been consulted in connection with new university initiatives. When the University proposed revised promotion criteria, the SAT Chair consulted all School staff and arranged meetings with senior University managers to provide feedback and ensure that the new guidelines reflect Athena SWAN principles. This resulted in significant improvements.

The SAT has kept in regular contact with Staff Tutors as they deal with major changes to their working conditions, identifying their main concerns, and lobbying to ensure that action is taken to address these at every level. The new Dean has placed Staff Tutors at the top of his agenda and has welcomed input from the SAT.

As part of our Bronze submission, we introduced tea and cake events for women staff and PhD students in the Department. These have provided a good opportunity for discussions of concerns (as well as celebrations of success and networking) and this has fed into our Action Plan.

In 2016 we extended our remit to include the professional and support staff in the School. The SAT Chair met with this group, explaining the aims of Athena SWAN and discussing their main areas of concern. Following this, a survey of support staff was carried out.

In order to prepare this submission, additional meetings of the full team were organised and each of the Action Plan Section Leaders worked with the SAT Chair to draft the relevant sections of the form. Data was provided by both HR and administrators in the School. The process was

much more streamlined than for the Bronze submission with input from a wide range of staff confirming that this work is now well embedded and owned by the School.

The SAT Chair continues to be a member of the London Mathematical Society's Good Practice Scheme Steering Group and SAT members have participated in LMS workshops, sharing good practice with other UK maths departments. Benchmarking data provided by the LMS was also used in the submission.

The submission was reviewed by two external reviewers (one arranged via a new LMS "buddy" system for silver applicants to share and review good practice) and by two members of the University STEM Gender Equality Group. It was reviewed and approved by the School Management Team and the Dean of the STEM Faculty.

(iii) plans for the future of the self-assessment team

The SAT now has a well-established and successful way of working. It will continue to have quarterly meetings to implement the new Action Plan, with subgroups meeting in between. The Section Leaders will have overall responsibility for implementing the relevant actions, reporting to the SAT at least annually and all work will be overseen by the Chair who is a member of the new School Management Team. She will continue to report to monthly Management Team meetings and quarterly School meetings, providing updates and input and consulting staff as appropriate. The Head of School will continue to be a key member of the team, leading on some sections of the Action Plan. A new role of Deputy will be created for this and all other committees and greater rotation of all roles will be encouraged, to help with succession planning and preparation for promotion. The Chair will continue to liaise with other SAT Chairs both within the OU and externally.

Action Plan 5.5: Introduce new role of deputy chair for School committees.

Word count for section 3: 976

4. A PICTURE OF THE DEPARTMENT

Recommended word count: Bronze: 2000 words | Silver: 2000 words

4.1. Student data

If courses in the categories below do not exist, please enter n/a.

(i) Numbers of men and women on access or foundation courses

There is one foundation course involving mathematics: the *Science, Technology and Mathematics Access Module*. The proportion of women on this module is at least as high as would be expected given the HESA 2013/14 benchmarking data for part-time students on access courses in these STEM disciplines (28%F). Further data shows similar performances for men and women.

	2013/14			2014/15			2015/16		
	F	M	%F	F	M	%F	F	M	%F
Foundation module	437	917	32%	351	572	38%	384	616	38%

Table 5: Students studying the foundation module

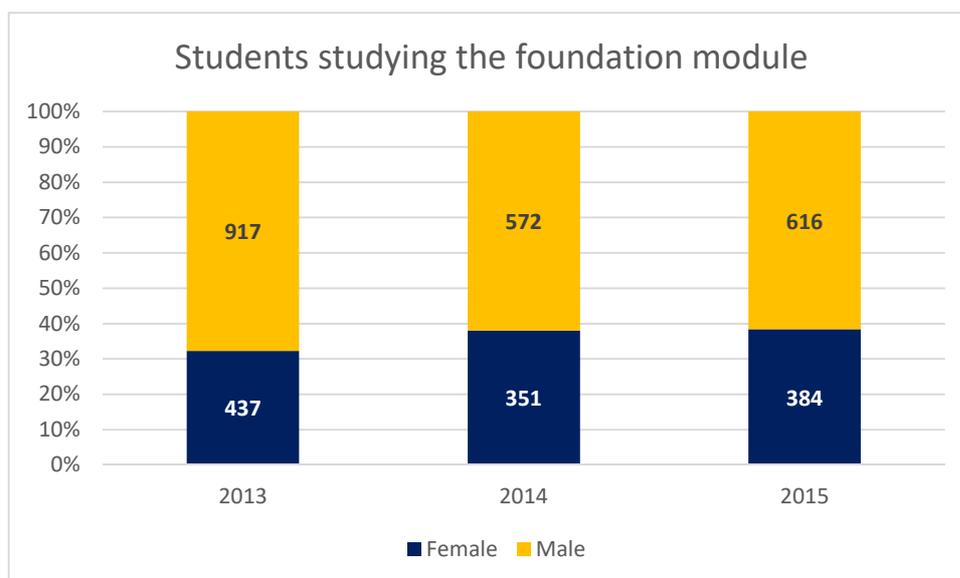


Figure 2: Students studying the foundation module

(ii) Numbers of undergraduate students by gender

Full- and part-time by programme. Provide data on course applications, offers, and acceptance rates, and degree attainment by gender.

For undergraduate students, the OU operates an open access policy (see *Guidance document*). Thus the notion of applications, offers and acceptance rate does not apply.

In 2012 the OU reviewed its teaching provision in response to the change in Government funding; students are now required to link their studies to qualifications instead of registering for individual modules. Trends in the data for this new system are only just beginning to emerge. Table 6 shows the numbers of new students enrolling on our qualifications.

	2013/14			2014/15			2015/16		
	F	M	%F	F	M	%F	F	M	%F
Mathematics	169	295	36%	155	281	36%	183	307	37%
Mathematics and Statistics	71	139	34%	89	156	36%	83	146	36%
Mathematics and its Learning	133	106	56%	138	66	68%	119	58	67%
Mathematics and Physics	54	270	17%	79	311	20%	83	347	19%

Table 6: Students registered on a Mathematics undergraduate qualification

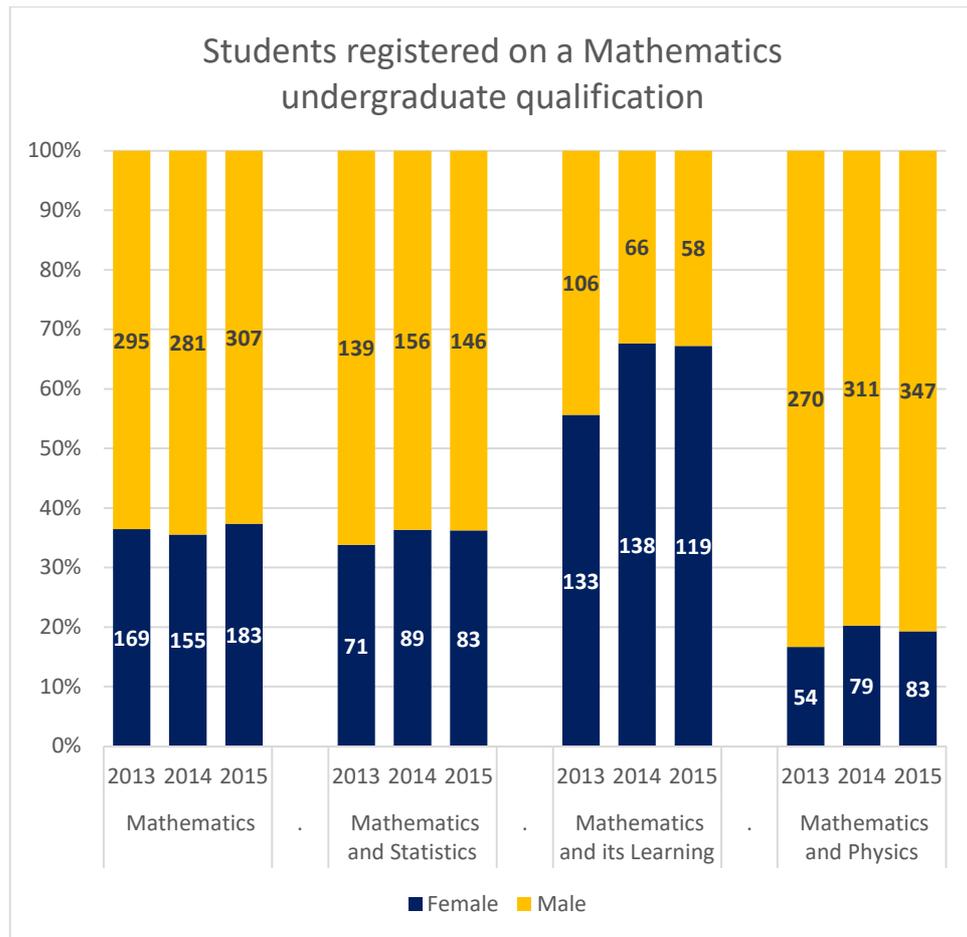


Figure 3: Students registered on a Mathematics undergraduate qualification

HESA data for 2013/14 shows that, for part-time students, the proportion of women on undergraduate degrees involving a significant amount of mathematics was 38% both nationally and at the OU.

The proportion of women on the new Mathematics and Physics degree is lower and closer to the HESA data for physics courses (27% part-time). The physics modules on this qualification are the responsibility of a different School (with a Silver award). We are now in the same Faculty which will facilitate joint actions.

Action Plan 1.8: Liaise with the School of Physical Sciences SAT to analyse the recruitment and performance of students for the Mathematics and Physics degree and develop appropriate actions.

The Mathematics and its Learning degree is studied by students with an interest in teaching mathematics and is very popular with women. This is an area which we are planning to develop, playing a leading role in the establishment of a new STEM Centre for Education.

Action Plan 1.5-1.7 and 4.1: Ensure that the Mathematics Education group is enabled to deliver a renewed provision to meet student demand and has good representation on the groups planning and developing the STEM Centre for Education.

The School also teaches many students on other OU qualifications. Table 7 shows numbers of students registered on our modules (regardless of qualification) split by level of study.

	2013/14			2014/15			2015/16		
	F	M	%F	F	M	%F	F	M	%F
Level 1 (4 modules)	3548	7588	32%	3416	7882	30%	3183	7601	30%
Level 2 (5 modules)	1060	1937	35%	879	1497	37%	824	1402	37%
Level 3 (13 modules)	1284	1739	42%	1280	1938	40%	1461	1975	43%

Table 7: Undergraduate students studying modules in mathematics or statistics, by level

The proportion of women increases with level of study because a large proportion of students studying Level 1 (and, to a lesser extent, Level 2) mathematics modules are doing so as part of a qualification such as engineering, where the proportion of women is much lower. These qualifications are owned by other Schools, now in the same Faculty.

Action Plan 1.9: Establish a new STEM working group to enable the SATs to work together on student recruitment and performance.

As part of our Action Plan, the SAT has worked closely with Marketing to introduce a new brochure with good gender balance in photographs and case studies.



“The OU is unlike most red-brick universities, it’s unique in a very precious way – it gives opportunity and flexibility to anyone who wants a higher education, no matter what their social and financial limitations.”

Fatema Islam, studied with the OU

Extract from OU Mathematics and Statistics Prospectus 2016/2017

The School website has also been refreshed (see 5.6(vii)). Positively, the proportion of women enrolling shows a slight increase.

Action Plan 11.5: Liaise with marketing and School website group to ensure the increased visibility of women in the student prospectus and on the website is maintained and updated.

We now consider student *attainment* on our undergraduate degrees. It is important to remember that many students registering before 2012 graduated with an Open degree or just studied individual modules. Since the median time taken to complete a mathematics degree at the OU is 6.8 years, it will take some time before we have a true picture of progression and achievement on the new qualifications.

The following figures show the performance of men and women awarded qualifications under the pre-2012 regime. Note that the Mathematics and Physics degree is too new to include here.

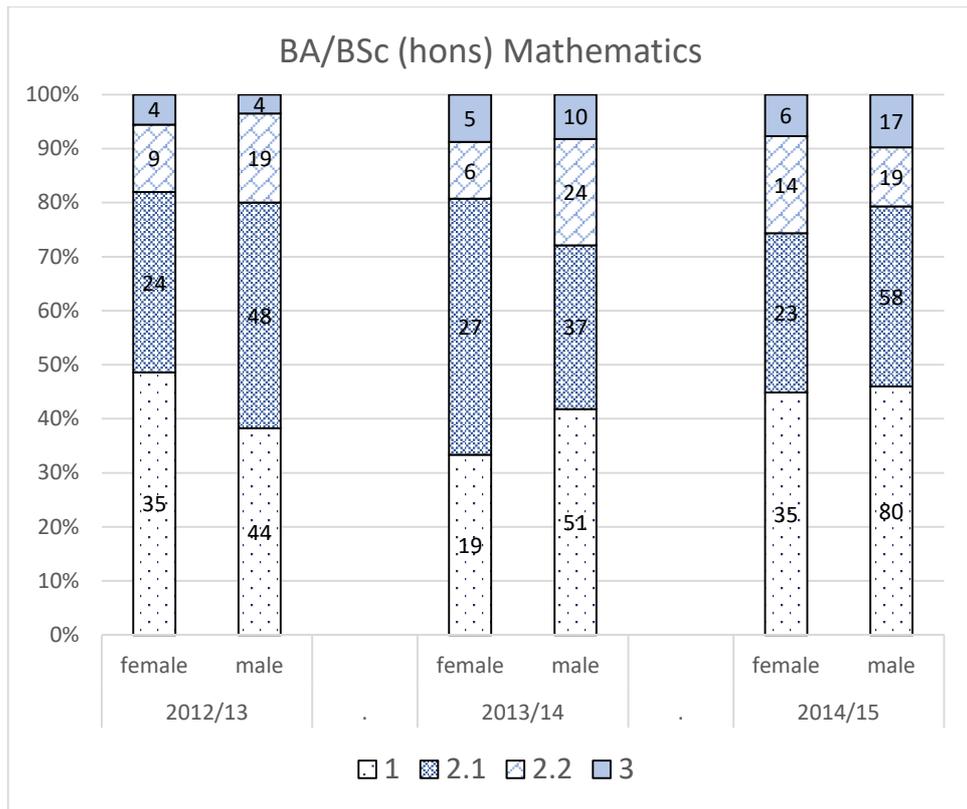


Figure 4: BA/BSc (Hons) Mathematics

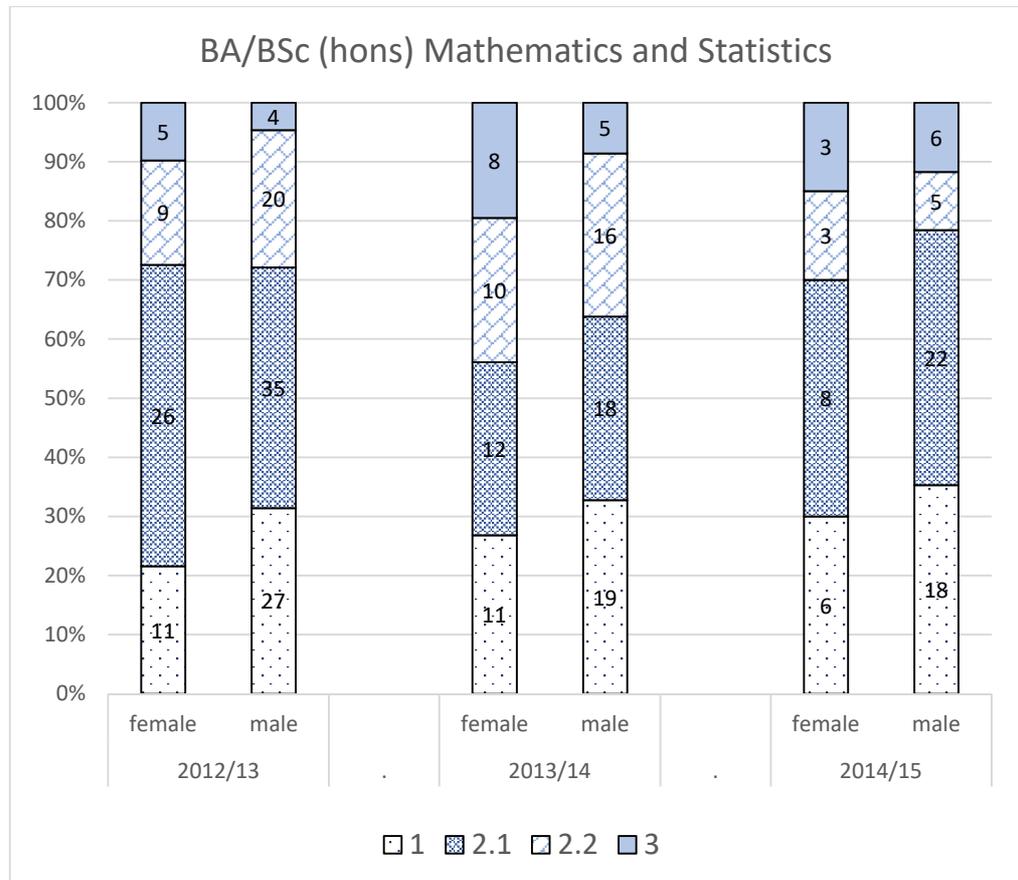


Figure 5: BA/BSc (Hons) Mathematics and Statistics

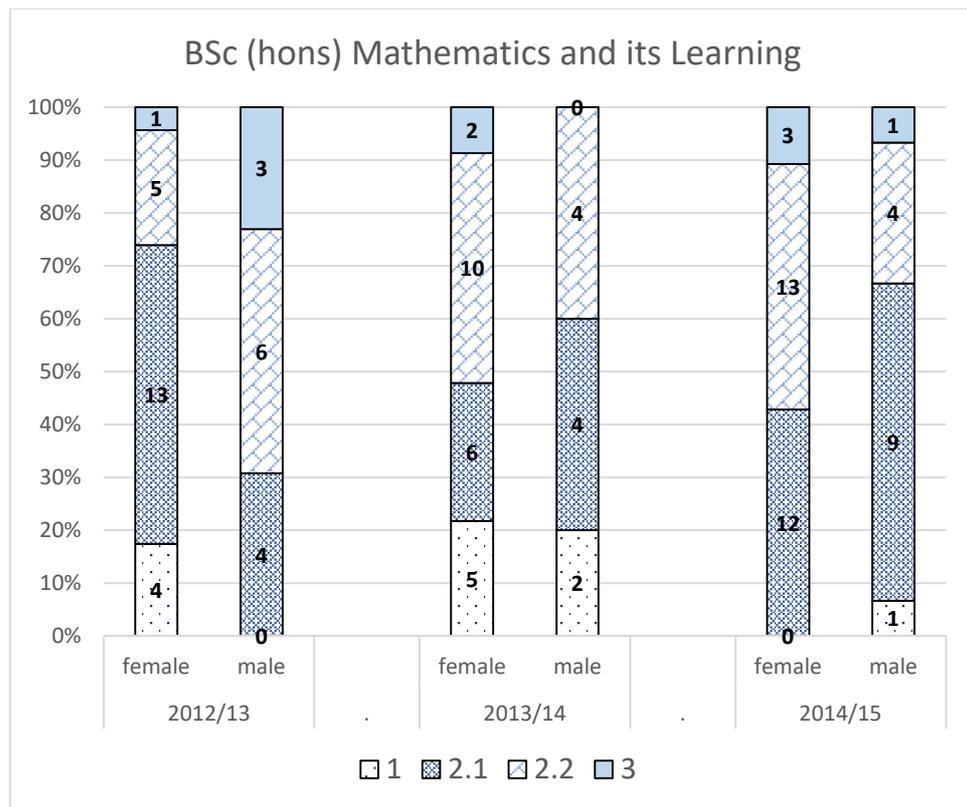


Figure 6: BSc (Hons) Mathematics and its Learning

The only consistent trend is that men appear to graduate with higher grades than women on the Mathematics and Statistics qualification. This seems surprising given that many modules are studied in common with the Mathematics qualification. We will look at this in more detail, checking e.g. whether this is related to the past performance of the students choosing to link their studies to this qualification.

Action Plan 1.3: Obtain and evaluate more detailed information on the performance of students on the Mathematics and Statistics qualification. In particular, analyse the performance of men and women at the end of the first year (common to our mathematics qualifications), and compare the results for students choosing the Mathematics and Statistics qualification with the results for students choosing the Mathematics qualification.

Retention and progression of students through all qualifications is now high priority and new Boards are being introduced to oversee this. All data considered by the School Board will be broken down by gender and appropriate actions introduced if necessary.

Action Plan 1.2: Obtain and evaluate data on progression through undergraduate qualifications and on performance on individual modules, broken down by gender. Formulate new actions if appropriate.

We have recently introduced interactive on-line diagnostic quizzes. These enable students to make informed decisions on which module to study and give constructive feedback to build confidence (likely to be particularly beneficial to women). Our Student Support Team (SST) has used the quiz results to alert tutors to areas in which individual students may require additional support, resulting in improved retention and performance.

Action Plan 1.4: Create a dialogue between the SAT and the new Mathematics and Statistics Student Support Team (SST) following its move from Nottingham to Manchester, to identify issues that may be affecting the recruitment and progression of women.

(iii) Numbers of men and women on postgraduate taught degrees

Full- and part-time. Provide data on course application, offers and acceptance rates and degree completion rates by gender.

The School runs two taught part-time distance learning postgraduate programmes. The Graduate Diploma in Mathematics Education is now closed to new registrations due to low student numbers. Consultation has shown that there is a demand for new provision in this area but at undergraduate rather than postgraduate level. We are planning to develop new curriculum which we expect to attract a correspondingly high proportion of women.

2013/14			2014/15			2015/16		
F	M	%F	F	M	%F	F	M	%F
15	4	79%	13	5	72%	13	3	81%

Table 8: Numbers of students enrolling on the Graduate Diploma in Mathematics Education

The MSc in Mathematics has a much lower proportion of women (around 17% graduating in 2013). This was one of the main concerns that we identified in our Bronze submission. At that point there was no application and registration data. All applications are now made centrally giving us new data.

This programme *does* impose a threshold for mathematical background. We have introduced much clearer guidelines to students and staff of the level required with standard degree requirements; students without this are sent a test in which they need to obtain 75%. We have also refreshed our advertising and website.

	2013/14			2014/15			2015/16		
	F	M	%F	F	M	%F	F	M	%F
Applications	30	109	22%	39	124	24%	46	137	25%
Enrolments	23	77	23%	33	96	26%	31	86	26%

Table 9: Students applying and enrolling on the MSc in Mathematics

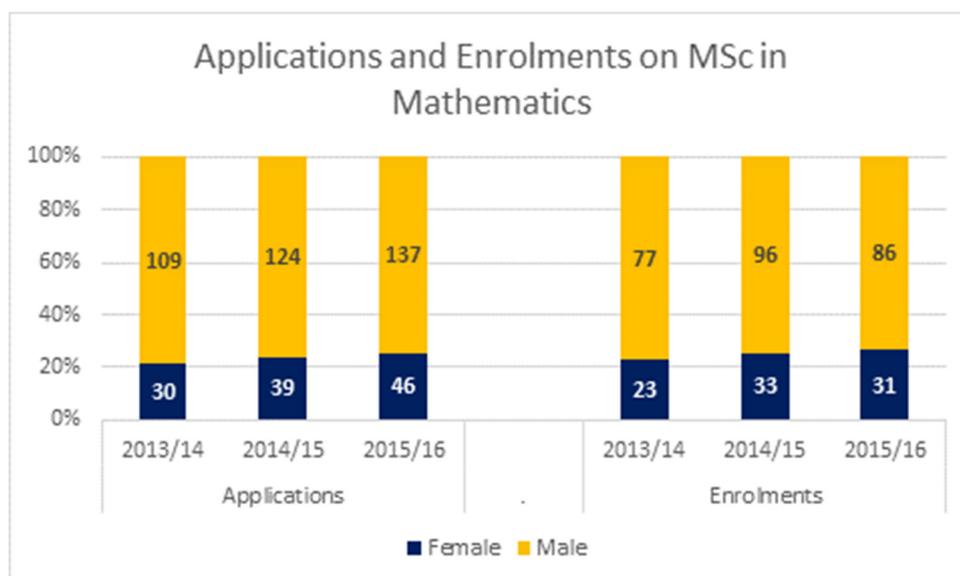


Figure 7: Students applying and enrolling on the MSc in Mathematics

The data shows a steady increase and the proportion of women enrolling is now in line with the HESA benchmarking data of 26% for taught part-time postgraduate mathematics students.

Further actions to address recruitment are discussed in (v) below.

In addition to the MSc which requires 6 modules, students can claim a Postgraduate Certificate after 2 modules and a Postgraduate Diploma after 4 modules. Some students claim all three qualifications and others claim just one so the data is not easy to interpret but it is striking that the proportion of women graduating from the MSc is substantially lower than the proportion of women claiming the intermediate qualifications.

	2013/14 (two presentations)			2014/15			2015/16		
	F	M	%F	F	M	%F	F	M	%F
Postgraduate Certificate	7	31	18%	7	13	35%	5	11	31%
Postgraduate Diploma	5	22	19%	4	12	25%	5	8	38%
MSc in Mathematics	16	72	18%	5	33	13%	6	31	16%

Table 10: Students awarded taught postgraduate qualifications in mathematics

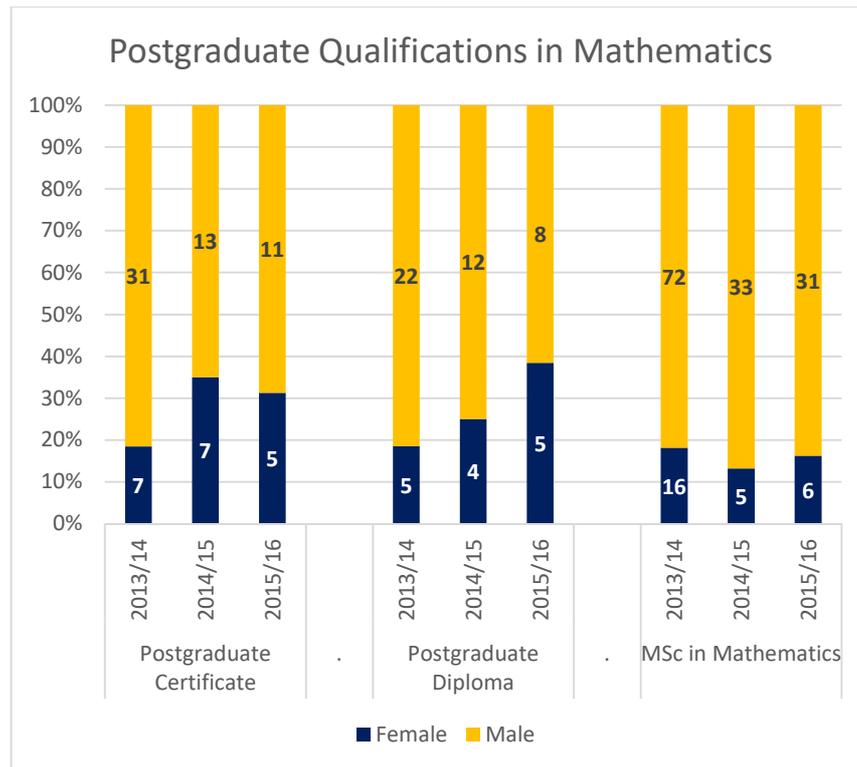


Figure 8: Students awarded taught postgraduate qualifications in mathematics

Additional data shows higher proportions of women on the early modules and particularly low proportions on the final dissertation module. It is, however, unclear whether this is due to women having lower retention rates or improving registration rates, as many students take 6 years to complete.

Initial research also suggests that men are more likely to obtain a distinction classification but this requires a more in-depth study.

Our new Action Plan will focus on student performance and progression.

Action Plan 2.4: Obtain detailed data on progression through the postgraduate qualifications and on performance on individual modules, broken down by gender.

Action Plan 2.5: Contact all students claiming the intermediate qualifications to encourage them to continue and identify any concerns.

Action Plan 2.6: Carry out interviews with students on the MSc to obtain qualitative information on progression.

(iv) Numbers of men and women on postgraduate research degrees

Full- and part-time. Provide data on course application, offers, acceptance and degree completion rates by gender.

	2013-14			2014-15			2015-16		
	F	M	%F	F	M	%F	F	M	%F
Full-time	4	9	30.7%	3	8	27.2%	3	8	27.2%
Part-time	0	5	0%	0	7	0%	0	9	0%

Table 11: PhD students in the School

The proportion of full-time female PhD students is in line with the national average of 28%. There were no female part-time students in this period (although one has just started). This is highly correlated to the low numbers of female students graduating from the MSc and concerns of women about funding (see (v)) as all part-time students are self-funded and most have graduated from the MSc. Actions to improve the gender balance on the MSc should improve this situation in the long term.

The tables below show recruitment of PhD students.

	2013			2014			2015		
	F	M	%F	F	M	%F	F	M	%F
Applications	5	14	36%	13	23	36%	8	22	27%
Offers	1	3	14%	1	6	14%	1	2	33%
% Offers/ Apps	20%	21%		8%	26%		13%	9%	
Enrolments	1	3	25%	0	2	0%	1	1	50%

Table 12: Applications for full-time PhD places in the School

	2013			2014			2015		
	F	M	%F	F	M	%F	F	M	%F
Applications	0	4	0%	0	4	0%	1	5	17%
Offers	0	4	0%	0	2	0%	0	4	0%
% Offers/ Apps	-	100%		-	50%		0%	80%	
Enrolments	0	4	0%	0	2	0%	0	4	0%

Table 13: Applications for part-time PhD places in the School

The School has introduced a number of steps to ensure good practice in recruitment. Case studies of a diverse range of PhD students have been added to the website. Advertising has been increased with specific wording to encourage female applicants, resulting in an increased number of applications for the very limited number of studentships. Visits to the School are encouraged, with care being taken to ensure that female applicants meet female students and staff. There is a formalised process for recruitment with interviews following a specified format overseen by the Research Director. Candidates are ranked by the Research Committee, informed by interview reports and application forms, and offers are then made.

	2009				2010				2011			
	Registered		%completed		Registered		%completed		Registered		%completed	
	F	M	F	M	F	M	F	M	F	M	F	M
Full-time	0	1	-	100%	1	2	0%	100%	2	3	50%	67%
Part-time	0	2	-	50%	0	1	-	100%	1	0	0%	-

Table 14: Completion rates for PhD students starting in the specified years

Table 14 shows the three most recent years for which students starting in those years have all completed or ended their studies. Until recently, the number of students was very small making it hard to create a community and many were mature students with personal reasons for withdrawing. We have now introduced the role of Postgraduate Tutor (see 5.3(iv)) and increased the number of full-time students. This has transformed the atmosphere in the School and in 2016 four students (2F,2M) progressed to academic positions elsewhere.



PhD students in their office

Action Plan 3.1-3.3: Continue the good practice around recruitment of PhD students, with the additional measure that interview panels for female students should include a female member of staff.

Action Plan 3.4: Contact successful MSc students individually to encourage them to consider applying for a PhD place.

(v) Progression pipeline between undergraduate and postgraduate student levels

Identify and comment on any issues in the pipeline between undergraduate and postgraduate degrees.

As stated in (iii), one of our main concerns was the dramatic difference between the proportion of women graduating from our undergraduate degrees and the proportion graduating from our MSc in Mathematics. We conducted two surveys with around 20 questions to investigate this disparity, one of 500 undergraduates and one of 500 of our graduates. The two groups gave very similar answers. The figures below (from the graduate survey) illustrate the questions with the most striking differences.

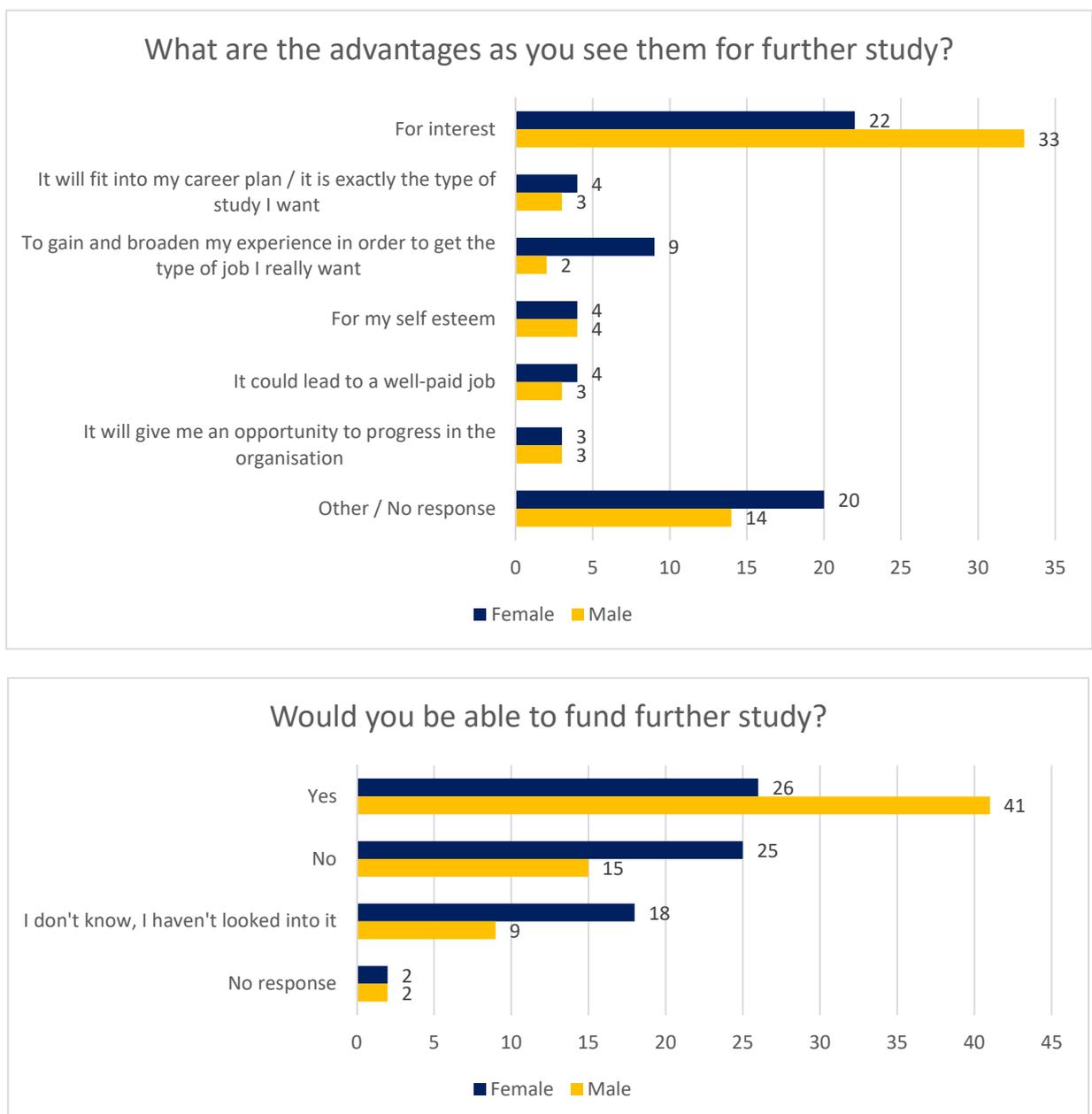


Figure 9: Results from two questions in our survey of OU graduates

The main differences between men and women were very pragmatic. More men were in full time employment, had studied for interest and were happy to carry on doing so. More women stated that they could not afford to fund further study although they showed a similar level of interest to the men. Women were more likely to be motivated to study by a desire to get a job they really wanted – for many, their earlier studies had resulted in a change of employment.

As a result, the School began to look into offering an MMath as this could be funded through student loans and, at the time, the MSc could not. Further research showed that an MMath would be attractive to students. The funding situation then changed and student loans are now available to support MSc study. We have therefore decided to focus on advertising the fact that loans are available for the MSc and the career opportunities that this qualification can bring, keeping the MMath under review as an option for the future.

Action Plan 2.1: Run an on-line session to promote the MSc, advertising the availability of student loans and using case studies to illustrate the career opportunities it can lead to.

Action Plan 2.2: Contact high performing undergraduate students to encourage them to think about postgraduate level study, advertising the loans and career opportunities.

Action Plan 2.3: Keep the postgraduate provision under review, including the possibility of introducing an MMath.

Word count for section 4.1: 56 + 606 + 351 + 287 + 252 = 1552

4.2. Academic and research staff data

- (i) Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only

Look at the career pipeline and comment on and explain any differences between men and women. Identify any gender issues in the pipeline at particular grades/job type/academic contract type.

	2014			2015			2016			National Average for %F
	F	M	%F	F	M	%F	F	M	%F	
Professor	1	10	9%	1	9	10%	2	7	22%	9%
Senior Lecturer (CA)	4	5	44%	5	5	50%	6	7	46%	23% (for SL and L)
Lecturer (CA)	3	9	25%	2	8	20%	2	5	29%	
Senior Lecturer (ST)	5	2	71%	4	3	57%	5	2	71%	38% (staff on teaching only contracts)
Lecturer (ST)	7	3	70%	7	2	78%	7	2	78%	
Research Associate	2	3	40%	3	3	50%	2	2	50%	23%

Table 15: Academic and Research staff composition

For most grades, the proportion of female staff is considerably higher than the national average. There are, however, large differences between our four groups.

	Pure Mathematics Group						Statistics Group					
	2014			2016			2014			2016		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
Professor	1	3	25%	2	2	50%	0	5	0%	0	3	0%
Senior Lecturer (CA)	3	1	75%	2	2	50%	0	0	N/A	3	1	75%
Lecturer (CA)	0	3	0%	0	1	0%	3	2	60%	0	1	0%
Senior Lecturer (ST)	4	1	80%	4	1	80%	1	0	100%	1	0	100%
Lecturer (ST)	3	2	60%	2	1	67%	2	0	100%	1	0	100%
Research Associate	0	1	0%	0	0	N/A	2	2	50%	2	2	50%

Table 16: Academic and research staff composition for Pure Mathematics and Statistics

	Applied Mathematics Group						Mathematics Education Group					
	2014			2016			2014			2016		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
Professor	0	2	0%	0	2	0%	0	0	N/A	0	0	N/A
Senior Lecturer (CA)	0	4	0%	0	4	0%	1	0	100%	1	0	100%
Lecturer (CA)	0	2	0%	0	2	0%	0	2	0%	2	1	66%
Senior Lecturer (ST)	0	1	0%	0	1	0%	0	0	N/A	0	0	N/A
Lecturer (ST)	1	0	100%	3	1	75%	1	0	100%	1	0	100%
Research Associate	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A

Table 17: Academic staff composition for Applied Mathematics and Mathematics Education

The Pure Mathematics Group has a high proportion of women and well-established good practice supporting promotion – all the female Central Academics in this group were already at least Senior Lecturer in 2013 and a second woman was promoted to Professor in 2015.

Our biggest concern in 2013 was that no female Central Academics in the Statistics Group had ever been promoted to Senior Lecturer. We transferred the good practice from the Pure Group to the whole School; all the female Central Academics in the Statistics Group have subsequently been promoted along with one man from each of the three main groups.

It remains a concern that there are no female Central Academics in the Applied Mathematics Group. We had one post in 2014 and, although we worked hard to encourage women to apply, a man was appointed. It is likely to be some time before we have another post in this area.

The Mathematics Education Group has just one permanent Central Academic and has been under review by the Faculty for some time. The Management Team and SAT have worked hard to secure its long term future and the Faculty has recently agreed to provide investment – a permanent Senior Lectureship has been advertised and a temporary (female) Lecturer is being made permanent.

Action Plan 1.5-1.7 and 4.1: Put in place a sustainable long term plan for the Mathematics Education group with permanent members of staff.

The lowest proportion of women is amongst the Central Academic Lecturers, although this is still around the national average. We have included several actions to ensure our recruitment practice is as good as possible (see 5.1(i)).

Action Plan 4.2-4.4: Further strengthen the measures in place around recruitment to attract high quality applicants and ensure fair selection.

Staff Tutors are more loosely linked to groups with many in Pure Mathematics for historical reasons. We have appointed 5 in the period (4F,1M) including two women in Applied Mathematics. We have a good track record of supporting promotions of Staff Tutors with 3 in the period (2F,1M). Issues and opportunities for Staff Tutors around the University's new promotion criteria will be a focus of our actions.

Action Plan 6.1-6.3, 7.1-7.3: Obtain clarity over the implementation of the new promotion criteria for Staff Tutors and brief staff. Develop scholarship activities to support staff through the new teaching route, and long term mentoring to enable Staff Tutors to take advantage of new opportunities for promotion to professor.

SILVER APPLICATIONS ONLY

Where relevant, comment on the transition of technical staff to academic roles.

There are no technical staff within the School.

- (ii) Academic and research staff by grade on fixed-term, open-ended/permanent and zero-hour contracts by gender

Comment on the proportions of men and women on these contracts. Comment on what is being done to ensure continuity of employment and to address any other issues, including redeployment schemes.

	2014						2015						2016					
	Female			Male			Female			Male			Female			Male		
	FTC	P	% FTC	FTC	P	% FTC	FTC	P	% FTC	FTC	P	% FTC	FTC	P	% FTC	FTC	P	% FTC
Professor	0	1	0%	0	10	0%	0	1	0%	0	9	0%	0	2	0%	0	7	0%
Senior Lecturer (CA)	0	4	0%	0	5	0%	0	5	0%	0	5	0%	0	6	0%	0	7	0%
Senior Lecturer (ST)	0	5	0%	0	2	0%	0	4	0%	0	3	0%	0	5	0%	0	2	0%
Lecturer (CA)	0	3	0%	2	7	22%	0	2	0%	1	7	13%	2	0	100%	1	4	20%
Lecturer (ST)	0	7	0%	0	3	0%	1	6	14%	0	2	0%	0	7	0%	0	2	0%
Researcher	2	0	100%	3	0	100%	3	0	100%	3	0	100%	2	0	100%	2	0	100%

Table 18: Fixed-term (FTC) and permanent (P) contracts

The School does not use zero-hour contracts.

One (female) Staff Tutor was appointed to a temporary contract during the period to cover extended sick leave. She was subsequently appointed to that position permanently.

Amongst Central Academics, the only temporary contracts have been for staff in the Mathematics Education group. One of the temporary Lecturers is currently being made permanent (see 4.2(i)).

All postdoctoral researchers are on temporary contracts. All staff, including postdoctoral researchers, approaching the last six months of their contracts have formal meetings with their line managers at which the possibilities for future employment both within and outside the OU

are discussed and support is provided to find such employment wherever possible. All postdoctoral researchers went on to academic positions elsewhere and two now have permanent lectureships (one at the OU).

(iii) Academic leavers by grade and gender and full/part-time status

Comment on the reasons academic staff leave the department, any differences by gender and the mechanisms for collecting this data.

	2014		2015		2016	
	F	M	F	M	F	M
Central Academic	2	0	0	3	0	3
Staff Tutor	1	0	3	2	1	1
Research Associate	0	3	0	1	1	1

Table 19: Leavers for the period 2014-2016 (including retirees)

The School Administrator keeps records of all leavers and their reasons for leaving. The Head of School together with HR ensure that good practice is followed.

In the period concerned, all but one of the staff leavers were due to retirement or death in service. One male member of staff on a temporary contract in the Mathematics Education group resigned.

All other leavers were postdoctoral researchers.

Word count for section 4.2: 339 + 140 + 66 = 545

Total word count for Section 4: 1552 + 545 = 2097

5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

Recommended word count: Bronze: 6000 words | Silver: 6500 words

5.1. Key career transition points: academic staff

(i) Recruitment

Break down data by gender and grade for applications to academic posts including shortlisted candidates, offer and acceptance rates. Comment on how the department's recruitment processes ensure that women (and men where there is an underrepresentation in numbers) are encouraged to apply.

	2014						2015						2016					
	Applicants		Shortlisted		Appointments		Applicants		Shortlisted		Appointments		Applicants		Shortlisted		Appointments	
	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F
Central Academic Lecturer (Permanent)	83	16%	6	17%	1	0%							23	26%	5	40%	1	0%
Central Academic Lecturer (Temporary)	9	22%	4	25	1	0%							16	25%	5	40%	2	100%
Staff Tutor Lecturer							54	30%	19	53%	4	75%	29	38%	6	67%	1	100%
Postdoctoral Researcher	17	29%	7	57%	3	67%												
Named Postdoctoral Researcher							1	0%										

Table 20: Applications and appointment rates by gender and job role, showing total number plus % female at each stage

We discuss these by type of post.

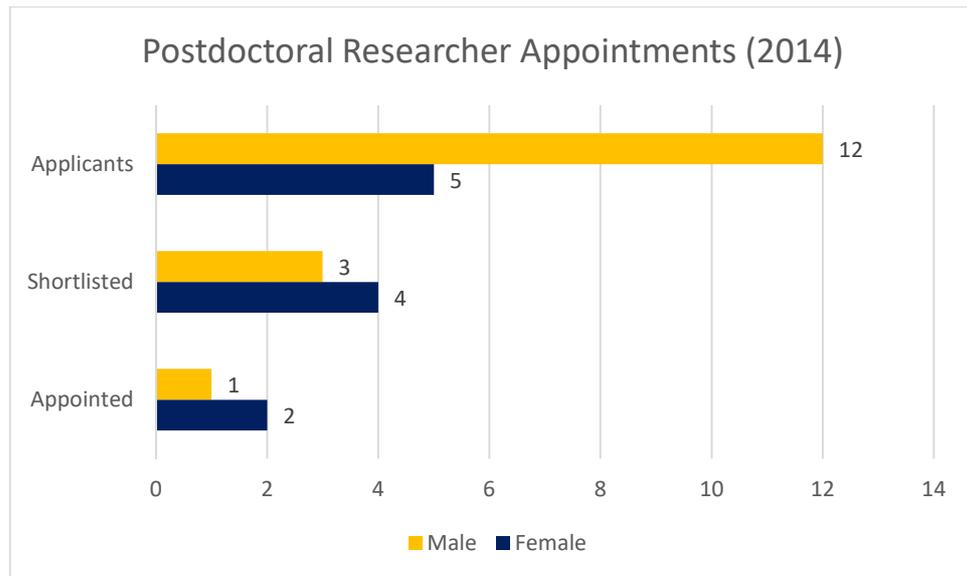


Figure 10: Postdoctoral researcher appointments

The figures for researchers should be treated with caution due to the small numbers involved but the gender balance of the appointments show a significant improvement over the previous period when only 20% of our researchers were female; guidance on good practice has been given to appointment panels during the current period.

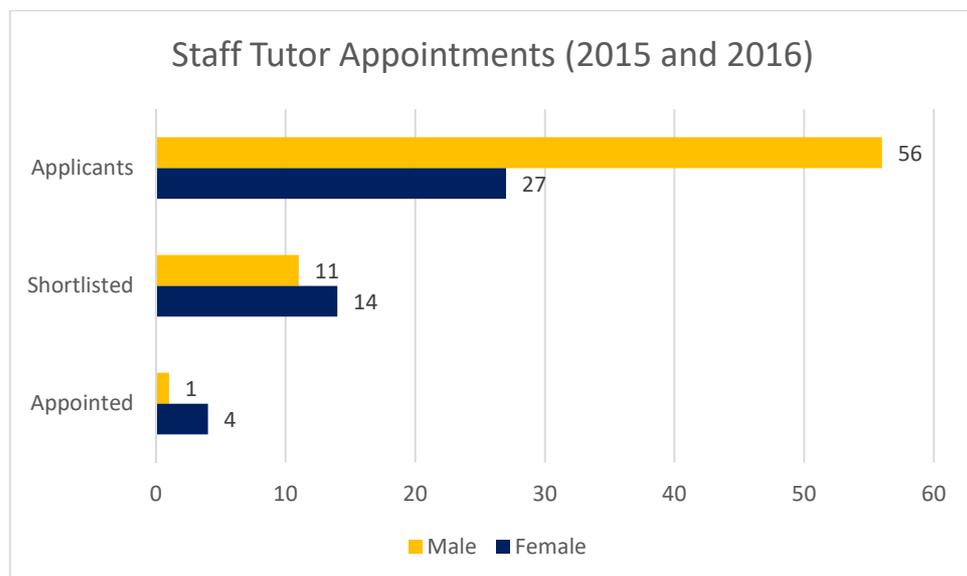


Figure 11: Staff Tutor appointments

Women applying for Staff Tutor posts have been very successful. Many of these women had highly relevant experience as an AL, a very flexible position that can be combined with other responsibilities such as childcare. (Note that many of our male ALs are retired from substantial employment and less likely to apply for Staff Tutor positions.) Most applicants did not have sufficient publications to obtain a standard academic job and the Staff Tutor role provided a welcome opportunity for them to obtain an academic position. The School is developing a number of initiatives to support the continued career development of Staff Tutors.

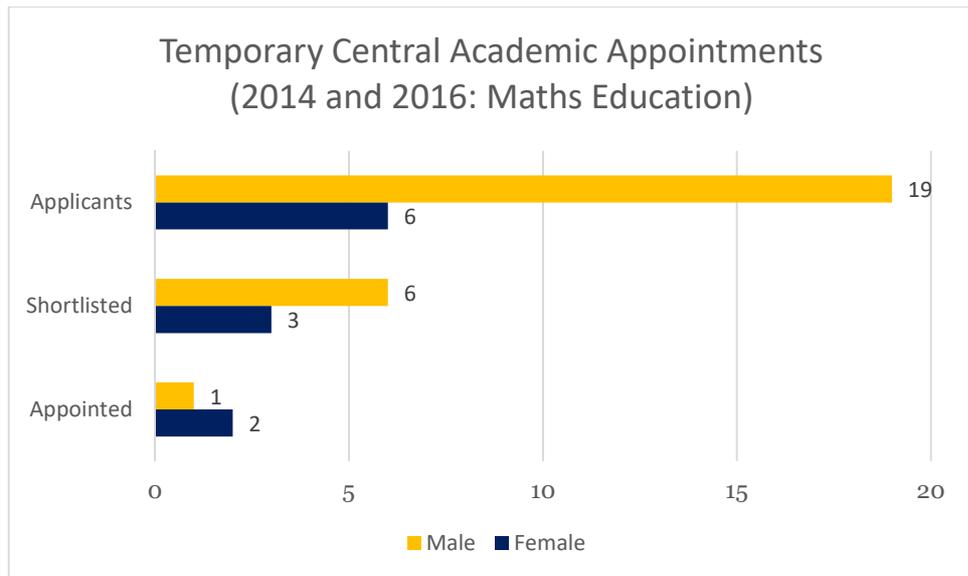


Figure 12: Temporary Central Academic appointments

The temporary lectureships were all in Mathematics Education. In 2016, a full time (temporary) position was converted to two part-time appointments to suit the needs of the (female) applicants.

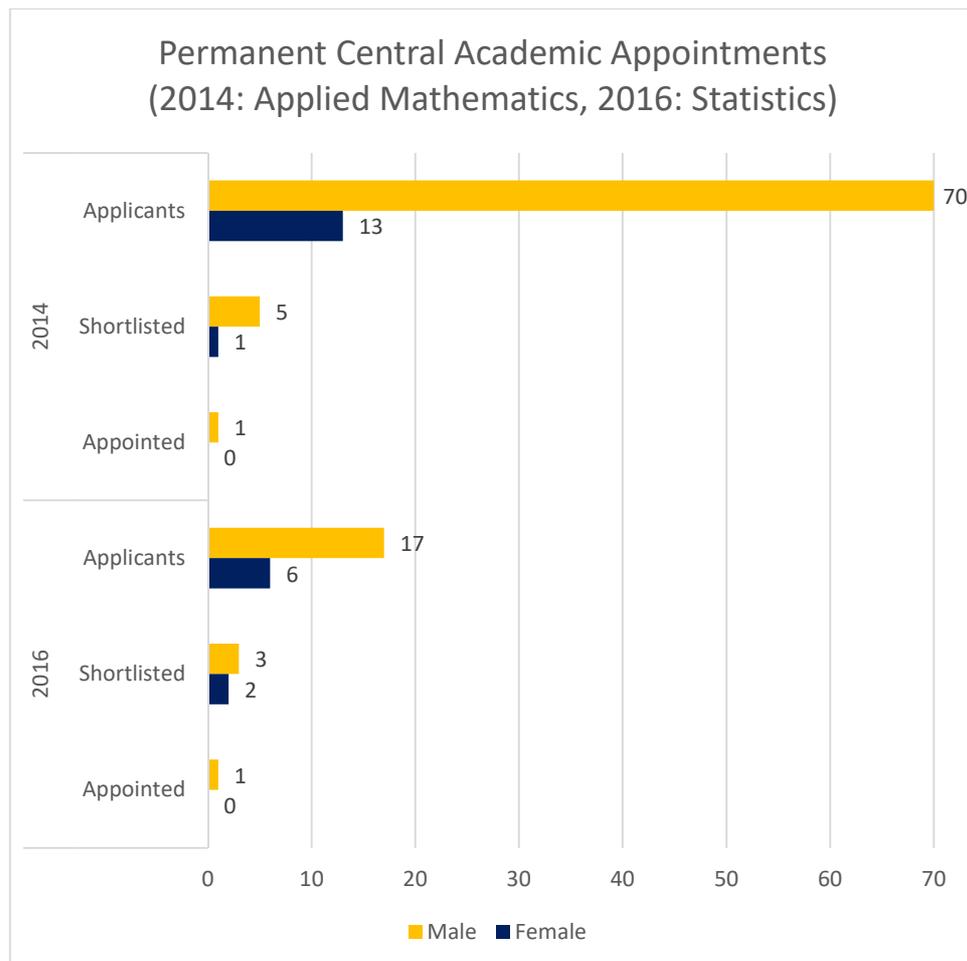


Figure 13: Permanent Central Academic appointments

Both the permanent Central Academic lectureships were offered to men. The 2014 post in applied mathematics attracted a high number of applications from theoretical physicists (an area with a very high proportion of men). The 2016 post in statistics attracted a higher proportion of women in line with the proportion in the field. In both cases, the proportion of women being shortlisted was in line with (or above) the proportion of female applicants.

The School is aware that all recent permanent Central Academic appointments are male. Although the numbers of posts involved are small, additional actions have been added to ensure that everything possible is being done to encourage applications from women and ensure fair selection.

Earlier actions included encouraging staff to contact suitable applicants directly, advertising via the European Women in Maths mailing list, adding wording to advertisements and further particulars to highlight the supportive and flexible working environment, adding a new section to the website about life in the School (including activities to support women) and ensuring that all postdoc appointment panels followed the practice of lectureship panels including both men and women. The whole panel is involved in shortlisting. For lectureships, applicants prepare teaching material and give a talk to the School in addition to being interviewed

These actions will now be formalised and a new guidance pack for appointment panels will be produced including: recommended good practice for panel composition and shortlisting processes, agreed wording to be included on advertisements and further particulars, and advice on producing person specifications and further particulars that are as inclusive as possible. The pack will be especially helpful for grant holders appointing postdocs. Other Schools have expressed interest in adopting this pack for their own use.

All panel chairs are required to have undergone training in fair selection and it is recommended that other panel members have also taken this training. We will organise a training session to ensure this is up to date.

Action Plan 4.2: Produce a guidance pack for appointment panels to ensure that good practice is followed consistently.

Action Plan 4.3: Organise a School training session on unconscious bias and fair selection.

Action Plan 4.4: Implement good practice ideas learned from LMS Good Practice Workshop on Recruitment.

(ii) **Induction**

Describe the induction and support provided to all new academic staff at all levels. Comment on the uptake of this and how its effectiveness is reviewed.

The OU has a comprehensive induction programme and the following process applies to all new members of staff including postdocs. Completion of the programme is a formal requirement and there is 100% uptake. University documentation has been customised by adding relevant names and links. An induction checklist ensures that all tasks are completed in a timely manner and that relevant staff are aware of their responsibilities. The programme lasts about three months with four stages:

1. Before a new employee starts, they are contacted by the School Administrator to ensure that required resources and equipment are in place when they arrive. A personalised induction programme is drawn up in discussion with the line manager, and a mentor and probation supervisor are put in place.
2. When the employee arrives, they are met and welcomed, and over the first few days they have meetings with key people in the School and are shown around the campus. The induction programme and pack are carefully discussed.
3. Over the first few weeks, meetings are held to discuss probation, appraisal and training needs. The new employee also works through an online induction module which includes diversity training.
4. Over the next few months, the employee completes the induction programme and is invited to a University welcome session. Further meetings are held to agree probation targets and evaluate the induction programme.

Since obtaining our Bronze award, we have added the Athena SWAN Chair to the list of people that the employee meets at step 2.

(iii) Promotion

Provide data on staff applying for promotion and comment on applications and success rates by gender, grade and full- and part-time status. Comment on how staff are encouraged and supported through the process.

There is a two stage process for promotions to Senior Lecturer. Firstly, candidates identified by the School (as described below) are put forward to the Faculty Committee (ASPRAG). Cases are then revised following input from ASPRAG before ASPRAG decides which cases to put to the University Committee; this has included all the cases from this School. The outcomes are shown below; two of the successful women work part-time.

	2013				2014				2015			
	Applications		%successful		Applications		%successful		Applications		%successful	
	F	M	F	M	F	M	F	M	F	M	F	M
Central Academic	1	1	0%	0%	1	1	100%	0%	2	2	100%	100%
Staff Tutor	-	-	-	-	1	1	100%	100%	1	-	100%	-

Table 21: Promotions to Senior Lecturer

There is a similar two stage process for promotion to Professor (and previously Reader) with these cases being dealt with by the Faculty's Chairs Working Group. The outcomes of submissions to the University Committee for these promotions is shown below.

	2013				2014				2015			
	Applications		%successful		Applications		%successful		Applications		%successful	
	F	M	F	M	F	M	F	M	F	M	F	M
Reader (role now discontinued)	-	-	-	-	-	1	-	100%	-	-	-	-
Professor	-	-	-	-	1	-	0%	-	1	-	100%	-

Table 22: Promotions to Reader and Professor

Work to support staff through the promotion process formed a key part of our Bronze action plan and has been one of our most successful activities. The School already had well-established good practice within the Pure Mathematics group (see 4.2) and has built upon this very effectively.

A second woman in Pure Mathematics was promoted to Professor and the good practice in this group was spread to the rest of the School and formalised. This led to promotions to Senior Lecturer for Central Academics and Staff Tutors in each of the three main groups, most notably, to overdue promotions for women in the Statistics Group (see 4.2). We introduced a number of actions to achieve this.

In 2014 we established a CV Review Group which meets annually to review the CVs of every member of the School. It decides who should be put forward for promotion in the coming round and identifies areas that need to be developed for staff working towards promotion in future years. The group comprises the Head, Research Director, Teaching Director and Athena SWAN Chair, the representatives on the Faculty Promotion committees and all appraisers. Staff are made aware of the importance of this meeting and of the need to provide an up-to-date CV. All CVs were previously reviewed annually by the Head in individual discussions with appraisers.

Each member of staff being put forward for promotion is now allocated a mentor from within their group to help them prepare their promotion case. The mentor works alongside the Head and the School representative on the relevant Faculty committee (a member of the Pure Group experienced in supporting promotion candidates). Unsuccessful candidates are supported by the same three people to address the feedback and produce a revised case. All the unsuccessful cases appearing in the tables above appear as successes in later years.

In addition to supporting staff applying for promotion, we recognise the need to offer mentoring to Senior Lecturers to support their career development with a long-term aim of achieving promotion to chair. We will now do this formally.

Action Plan 6.3: Provide formal long-term mentoring for staff to support career development leading to promotion to Professor.

We have also taken actions regarding the University's new promotion scheme, introduced in 2015. The scheme aimed to increase the transparency and clarity of the promotion process and introduced a formal process for taking account of issues such as part-time working.

The new scheme offers four profiles for promotion – combined research and teaching, research, teaching, and knowledge exchange. It gives clear guidelines on what is expected for each profile whilst allowing some flexibility to substitute evidence from another profile. Staff are also required to show evidence of leadership.

The SAT Chair was heavily involved in discussions with senior members of the University to ensure that the new scheme was as fair as possible. She carefully briefed School staff on the scheme and encouraged them to take advantage of the new possible routes for promotion. It is notable that, in the first year of the new scheme, the School submitted 5 cases for promotion to Senior Lecturer, all of which were successful.

The Chair is in ongoing discussions with University management to try and clarify how the new criteria should be applied to Staff Tutors. It is hoped that in the longer term, they will benefit from the new routes available for promotion and, for the first time, be able to achieve promotion to professorial level; we will offer mentoring to support this – see above.

Action Plan 6.1 and 6.2: Hold further discussions with the Dean and the Chair of the University Promotion Committee and organise briefing sessions for Staff Tutors on the new promotion criteria.

There is also provision for staff to receive one-off awards and additional increments. Candidates are identified at the annual CV review meeting and appraisers prepare cases to submit to the Faculty. We will introduce an additional review meeting to discuss these cases, close to the call for nominations.

Action Plan 6.5: Introduce additional meeting of CV Review Group to discuss staff rewards.

(iv) Department submissions to the Research Excellence Framework (REF)

Provide data on the staff, by gender, submitted to REF versus those that were eligible. Compare this to the data for the Research Assessment Exercise 2008. Comment on any gender imbalances identified.

	2008 RAE (UoAs 20 and 22)			2014 REF (UoA B10)		
	F	M	%F	F	M	%F
Eligible (inc Staff Tutors)	18	38	32%	20	30	40%
Eligible (exc Staff Tutors)	10	31	24%	9	25	26%
Submitted	5	19	21%	5	14	26%
% submitted (exc Staff Tutors)	50%	61%		56%	56%	

Table 23: Staff submitted to the REF

The nature of the Staff Tutor contract (with 50% on teaching-related administration) means that it is almost impossible for them to achieve the necessary outputs. For this reason, we have calculated the percentages for Central Academics. The data shows that, although women were slightly less likely to be submitted in 2008, their submission rates were equal to those of the men in 2014. The numbers involved, however, are relatively small. Those leading the preparations for the next REF are aware of the need to support all members of staff to prepare effectively.

Even though Staff Tutors are unlikely to be included in the REF, the School is keen to support their research activity and has introduced a number of measures to assist this (see 5.3(iii)).

Action Plan 8.4: Support all research-active staff with preparations for REF2020, and ensure that workload allocations give staff the necessary amount of research time.

Word count for section 5.1: 514 + 250 + 724 + 125 = 1613

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5.2. Key career transition points: professional and support staff

(i) Induction

Describe the induction and support provided to all new professional and support staff, at all levels. Comment on the uptake of this and how its effectiveness is reviewed.

The induction process for professional and support staff is similar to the induction process for academic staff and occurs every time the member of staff is appointed to a new role. The Induction Programme is compulsory and there is 100% uptake. The Faculty provides an induction plan which typically consists of an Induction Guide (introducing the role, how it fits within the structure, rudiments of the job, guidance about where to find more information, etc), a series of meetings with key managers and colleagues, and being set up with a work buddy (in the local School team) and a mentor (in the wider Faculty community of professional and support staff).

(ii) Promotion

Provide data on staff applying for promotion, and comment on applications and success rates by gender, grade and full- and part-time status. Comment on how staff are encouraged and supported through the process.

University policy is that promotion is not available to non-academic staff. There is provision for a job to be re-graded if it changes substantially in nature but this happens very rarely as many roles have counterparts across the University. Staff can apply for a different role within the OU, on a competitive basis, at a higher (or identical) grade. Usually such jobs are advertised internally initially to maximise the opportunities for internal career progression.

Within the period, two (female) Grade 7 members of School support staff successfully applied for a Grade 8 secondment elsewhere in the OU and were subsequently made permanent in those posts. A Grade 6 female from elsewhere in the OU successfully applied for a Grade 7 secondment in the School and was subsequently made permanent. Two (female) Grade 7 members of our support staff recently successfully applied for two new Grade 8 posts created as part of our transition to a School.

Encouragement and support is discussed in 5.4(iii).

Word count for section 5.2: 250

5.3. Career development: academic staff

(i) Training

Describe the training available to staff at all levels in the department. Provide details of uptake by gender and how existing staff are kept up to date with training. How is its effectiveness monitored and developed in response to levels of uptake and evaluation?

The appraisal form asks staff to state any training needs that they have and these are followed up appropriately. Most Central Academics participate in training events without recording them formally. Staff Tutors engage with the form more extensively and, especially over the last year, have participated in a number of training sessions regarding new University initiatives.

A range of research-related training is provided centrally on topics such as supervising PhD students, applying for grants etc. Staff and PhD students also have an annual budget of at least £1000 from the School to enable them to participate in research-related activities such as conferences, with an additional £250 a year to enable PhD students to travel to study postgraduate level courses.

There are numerous teaching-related training events on offer, to enable staff to complete the formal processes associated with teaching and new University initiatives and also to assist staff with the pedagogical aspects of teaching. The School has recently launched two new programmes to assist staff in this area – see 5.3(iii). These are funded by the School's Staff Development Budget which also funds training events for individuals.

Training is compulsory for roles such as appraiser and interview panel chair.

Some School members have participated in the OU's Academic Leadership Development Programme and recently a female Staff Tutor was one of only two out of twelve applicants from the Faculty to be offered a place on the Aurora Leadership Programme. The Management Team is pro-active in encouraging staff to apply for such programmes.

Action Plan 5.7: Remind appraisers to discuss training needs and review effectiveness as part of the annual appraisal.

(ii) Appraisal/development review

Describe current appraisal/development review schemes for staff at all levels, including postdoctoral researchers and provide data on uptake by gender. Provide details of any appraisal/review training offered and the uptake of this, as well as staff feedback about the process.

All members of academic staff (including postdocs) take part in the University's appraisal scheme. Within this School there is 100% uptake of annual appraisals.

Staff are usually appraised by their Head of Group or by the Head of School in the case of Professors. All appraisers are required to undergo University training and there is 100% uptake of this.

There is a comprehensive set of paperwork for the appraisal provided by the University with the priorities being to reflect on the work carried out during the previous year and to agree objectives and workload plans for the following year.

Since our Bronze application, appraisers have started to work together more closely as a group and both appraisers and appraisees have been reminded of the importance of appraisals for career development. Staff are now aware that, as part of the appraisal process, they should receive feedback from the annual CV review meeting (see 5.1(iii)) which, in addition to identifying staff who are ready for promotion, identifies gaps in CVs (with regards to promotion) that could be addressed by appropriate workload planning in the future.

(iii) Support given to academic staff for career progression

Comment and reflect on support given to academic staff, especially postdoctoral researchers, to assist in their career progression.

As described above, career development is now an integral part of the annual CV review, appraisal and workload planning round. In addition to their appraiser, all postdocs and new members of staff have a mentor and a probation supervisor, who offer advice and support with career development.

The main concern identified in the feedback on our Bronze submission was the need to support the career development of Staff Tutors and this has been a priority.

Immediately following our Bronze submission, the Research Director introduced a number of measures to support Staff Tutor research activity – adding a Staff Tutor representative to the Research Committee, offering all Staff Tutors a research buddy, and lobbying to try and obtain an effective system of cover to enable study leave to be taken. Finding time for traditional research, however, remains challenging.

In 2014, the School obtained funding (from a scheme to support Faculty scholarship projects) to run an in-depth survey of Staff Tutors' career motivations and ambitions. Following interest from others, we expanded this to cover all STEM Schools with an extensive questionnaire and focus groups.

The timing was difficult due to the University's decision in 2015 to close the regional offices where Staff Tutors currently work. The survey showed that, despite the challenges, Staff Tutors remain passionately committed to the mission of the OU and greatly appreciate the flexibility that the work offers.

Staff Tutors were, however, very concerned that the amount of time they spend on administrative work restricts their ability to engage in the academic tasks required for promotion. They were also concerned that, with the advent of home working, there is a need for very high quality equipment to enable effective remote participation in meetings to ensure visibility and preserve an academic community.

The report on the survey has been widely circulated and discussed at the very highest levels of the University. The Faculty has recently agreed a number of actions following our recommendations, including providing improved administrative support for Staff Tutors. Also, high quality equipment for remote access is being installed in meeting rooms.

The survey showed that most Staff Tutors see the new teaching profile as their most likely route for promotion. The School has launched two new programmes to support this:

(a) Developing pedagogical research skills

This programme began with a workshop introducing participants to the key stages of the research cycle, and encouraging them to develop their own projects. Further mentoring and support have been offered and the development of a scholarship community (with seminars) is being planned. Thirteen Staff Tutors (10F,3M) and five Central Academics (3F,2M) have joined this programme.

(b) Gaining HEA recognition as a Senior Fellow

Eleven of our Staff Tutors (9F,2M) wished to gain this recognition. They have been encouraged to register for the University's generic staff development programme on HEA recognition, APPLAuD, which provides support from a mentor, many useful website resources and a deadline for submission. In addition, regular meetings will be held to help our staff interpret the criteria in their own context and to share good practice. This programme has already resulted in two new Senior Fellows (both female) with one further case (male) submitted.

The School recently organised a two-day meeting of talks to celebrate the research and scholarship activities of Staff Tutors, funded by a successful bid to the London Mathematical Society.

The School continues to support the development of staff's research careers and staff are now asked to fill out a research plan for the following year. The Research Director is then able to allocate resource appropriately and provide mentors for those hoping to bid for funding. There has also been an increase in the number of small study groups within the School where staff and postgraduates meet informally to discuss research projects.

As mentioned in 5.2(iii), the School is introducing new formal long-term mentoring to support career development to professor.

Action Plan 7.1: Develop a programme of scholarship seminars.

Action Plan 7.2: Develop regular meetings to support staff to gain HEA recognition.

Action Plan 7.3: Provide mentors to support staff as they engage with the new scholarship programme.

Action Plan 8.3: Continue to offer buddies for Staff Tutors who want to be research active.

Action Plan 11.8: Ensure that staff are trained in the use of new high quality equipment for remote access currently being installed in meeting rooms and in how to chair and be members of meetings with remote participants.

(iv) Support given to students (at any level) for academic career progression

Comment and reflect on support given to students at any level to enable them to make informed decisions about their career (including the transition to a sustainable academic career).

The School has organised a series of undergraduate careers events over the last two years. In May 2014 a careers event focusing on statistics included external speakers and the OU Careers Service, attracting over 60 students.



Speakers at the 2014 careers event

This was the first OU careers event of this type and the positive feedback resulted in a larger careers day in April 2015. This attracted over 30 Mathematics and Statistics senior practitioners and employers, and over 180 students. The talks were recorded and hosted on both the OU Careers and the Mathematics and Statistics Programme websites accessed by many hundreds of students. Additional online careers events were co-hosted by the School and the Careers Service, in 2015 and 2016.

PhD students have access to the Careers Service and to University-wide training events. They are encouraged to use the Vitae Researcher Development Framework Planner to assess and record their developing skills and competencies. This is discussed with their supervisors as part of their six-monthly progress reports. All PhD students have a third party monitor to whom they can go for advice in addition to their supervisors. We now ensure that, for female students, at least one member of this team is female.

Since 2013, the School has had a Postgraduate Research Tutor who has introduced a variety of new initiatives as well as providing support and advice on an individual basis. He organises two annual one-day meetings with speakers covering a range of topics, including many related to career progression. Part-time students are offered expenses to enable them to participate. He has encouraged postgraduates to run their own seminar series, helping them to grow in confidence and learn from each other, and they are actively encouraged (with funding) to travel, present their work and network with other students and academics.

Postgraduates are encouraged to gain teaching experience, for example, by applying to become Associate Lecturers, teaching in local schools and working with organisations such as the UK Mathematics Trust and the Brilliant Club. They are also encouraged to take part in outreach events.

All female PhD students are encouraged and funded to participate in the LMS Women in Mathematics Days and all 3 have. In 2015, the LMS organised a two day Women in Maths event in Oxford which, for the first time, was open to undergraduates. This event included a number of presentations from women who were successfully using their mathematics in a range of careers. OU undergraduates were encouraged to attend and 10 did.

(v) [Support offered to those applying for research grant applications](#)

Comment and reflect on support given to staff who apply for funding and what support is offered to those who are unsuccessful.

Administrative support for research grant applications is provided by the Faculty's Research and Business Office. The School's Research Director acts as the link between the bidder and the Faculty, provides direct support, and arranges for peer-to-peer support. To facilitate this, the School maintains a "wiki" page detailing various funding opportunities; staff are invited to add their names against particular funding streams so that previous expertise can be shared. All bids are internally peer-reviewed and we aim to make this a constructive process. The reviewers can be chosen by the bidder, or the Research Director can suggest someone suitable and make the necessary arrangements.

For those who are unsuccessful, encouragement is given to revise and resubmit the bid, where possible, and advice on alternative funding sources is offered. The School's "wiki" page allows staff to volunteer information about unsuccessful bids (as well as successful ones), to share useful experience within a supportive culture. The new promotion scheme also rewards efforts to obtain funding and, at Senior Lecturer level, bids which are unsuccessful but received positive feedback can be included as part of the case for promotion.

Word count for section 5.3: 250 + 183 + 645 + 411 + 185 = 1674

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5.4. Career development: professional and support staff

(i) Training

Describe the training available to staff at all levels in the department. Provide details of uptake by gender and how existing staff are kept up to date with training. How is its effectiveness monitored and developed in response to levels of uptake and evaluation?

Informal on-the-job training and development take place continuously in response to new and revised policies, procedures, systems and initiatives introduced at University or Faculty level. All staff participate in these activities, as appropriate, and evaluation is monitored through performance and informal feedback. All staff have the opportunity to request additional training or development to support particular activities through annual appraisal meetings.

In addition, the University runs an evolving Learning and Organisational Development programme covering management and leadership, team-working, personal development, change, project management, IT, plus bespoke training for groups or individuals. Uptake and evaluation of such training and development opportunities is considered at annual appraisal meetings.

(ii) Appraisal/development review

Describe current appraisal/development review schemes for professional and support staff at all levels and provide data on uptake by gender. Provide details of any appraisal/review training offered and the uptake of this, as well as staff feedback about the process.

Professional and support staff participate in the same appraisal system used for academics with annual appraisals reviewing past objectives and setting future ones. There is 100% uptake and all line managers undertake formal training on how to carry out appraisals for their staff.

During the Athena SWAN consultation, it became clear that many felt that the appraisal forms place too much emphasis on setting detailed objectives for the following year and insufficient emphasis on career development. Although academic staff use the same forms, they are not required to engage with them so rigorously in our School and so find them less problematic.

Action Plan 9.1: Ensure that Faculty Management are aware of staff concerns over the appraisal forms and work with them to ensure that the appraisal process provides an effective means of discussing career progression aspirations.

- (iii) Support given to professional and support staff for career progression

Comment and reflect on support given to professional and support staff to assist in their career progression.

Those who wish to seek career progression are encouraged by their line manager to apply for jobs when they are advertised within the University. For a short-term job, an individual may be offered a secondment from their substantive post, and indeed staff within the School have done this, gaining valuable experience. In almost all cases, this involves moving to a job outside the School.

An anonymous survey of the School's professional and support staff was carried out to ascertain their views on the opportunities and support for career progression, with 100% response rate. It was clear that, although some members of staff were actively seeking career progression and being encouraged to apply for appropriate jobs, many members of staff were very happy working in the School and were reluctant to apply for jobs elsewhere. Some staff would, however, welcome more opportunities to take on new tasks in a more informal manner.

Action Plan 9.2: Explore ways in which staff can develop their skills in a less formal manner than applying for a new job or secondment.

Word count for section 5.3: 106 + 102 + 151 = 359

5.5. Flexible working and managing career breaks

Note: Present professional and support staff and academic staff data separately

- (i) Cover and support for maternity and adoption leave: before leave

Explain what support the department offers to staff before they go on maternity and adoption leave.

In our Bronze application we found that staff had varied experiences of support before, during and after maternity leave and, with such leave occurring relatively infrequently (none in the period currently under review), we identified that clear guidance for managers and access to peer support were needed to ensure good practice for every staff member. We have worked closely with the University SAT who identified similar issues and sought information from an external consultant, a University-wide survey and focus groups. This has led to a new University One-Stop-Shop website dedicated to parental leave, which will be launched shortly. It contains all the relevant documents, policies and links that were previously buried amongst other HR forms, and two new guidance documents. One gives step-by-step guidance (with checklists) on supporting staff before, during and after maternity leave and the other gives step-by-step guidance for staff planning to take maternity leave, covering the time before, during and after leave.

Before going on maternity leave, staff meet their line manager to discuss appropriate cover, communication whilst on leave, use of Keeping in Touch (KIT) days and arrangements for return. The new guidance should improve the quality and consistency of these arrangements.

Following feedback from staff, the School has decided to supplement the University actions by providing a mentor to support staff through parental leave.

Action Plan 10.1: Ensure that staff are aware of the new One-Stop-Shop website and guidance for maternity leave for line managers and staff.

Action Plan 10.2: Ensure that all staff embarking on parental leave are offered a mentor from within the School and develop a description of the role of the mentor.

(ii) Cover and support for maternity and adoption leave: during leave

Explain what support the department offers to staff during maternity and adoption leave.

Fully-funded cover is available for support staff and for Staff Tutors' regional work. Postdoctoral researchers have their position paused where funding rules allow. However, there is currently no cover provided by the Faculty for the teaching tasks of Staff Tutors or any of the work of Central Academics. This work has previously been reallocated between colleagues by the Head of Group but we are aware that this not ideal. As a School, we have more control over budgets which will enable us to provide some cover in future. The SAT has also recently had constructive discussions with the new Dean about the need for proper cover to be provided at a Faculty level.

During parental leave, line managers keep in touch as agreed, ensuring that staff are aware of any changes and are in agreement with plans for KIT days and workload upon their return. The new guidance discussed in (i) will improve the quality of support provided by line managers.

Action Plan 10.3: Ensure that the new maternity leave guidance for line managers and staff is properly implemented.

Action Plan 10.5: Use new School budget to provide some cover of teaching duties of staff on parental leave and discuss options for additional funding from the Faculty with the new Dean.

(iii) Cover and support for maternity and adoption leave: returning to work

Explain what support the department offers to staff on return from maternity or adoption leave.

Comment on any funding provided to support returning staff.

Arrangements for return to work are made on a case-by-case basis. Staff can use their accrued annual leave to manage a staged return and many have returned to work on a part-time basis, gradually increasing their hours over many years.

The School aims to ensure that academic staff can use some study leave to help catch up after several months absence from research and scholarship, but this has not always been possible for members of small groups in periods of heavy teaching commitments. The SAT is exploring ways in which funding could be obtained from the Faculty to provide teaching cover in such circumstances through discussions with the new Dean. The SAT is also in discussions with the University SAT concerning a possible University-wide sabbatical system for staff returning from parental leave.

In the short term, our new School status will enable us to use consultancy funding to provide some teaching cover for returning staff. We will also offer increased support from the research budget e.g. to enable the returner to invite collaborators to visit.

The new guidance and mentor discussed in (i) will ensure that, in the future, staff are provided with high quality support and careful workload planning on their return and for some time afterwards.

Action Plan 10.6: Continue to explore options for funding to provide some cover of teaching duties for staff on returning from parental leave. Provide increased support from the research budget for 12 months after return from leave.

(iv) [Maternity return rate](#)

Provide data and comment on the maternity return rate in the department. Data of staff whose contracts are not renewed while on maternity leave should be included in the section along with commentary.

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Provide data and comment on the proportion of staff remaining in post six, 12 and 18 months after return from maternity leave.

	2012			2013-2015
	Number taking leave	%return	In-post after 18 months	Number taking leave
Central Academic	1	100%	100%	0
Staff Tutor	0	N/A	N/A	0
Support Staff	0	N/A	N/A	0

Table 24: Maternity return rate

There has been no new maternity leave taken by any category of staff during the period of this application. One Central Academic who returned during 2013 remains in post to date. Likewise, the last Staff Tutor who took maternity leave in 2010 and the last member of support staff who took maternity leave in 2007 remain in post to date.

(v) Paternity, shared parental, adoption, and parental leave uptake

Provide data and comment on the uptake of these types of leave by gender and grade. Comment on what the department does to promote and encourage take-up of paternity leave and shared parental leave.

	2013		2014		2015	
	Number eligible	%uptake	Number eligible	%uptake	Number eligible	%uptake
Central Academic	1	100%	1	100%	2	100%
Staff Tutor	0	N/A	0	N/A	0	N/A
Support Staff	0	N/A	0	N/A	0	N/A

Table 25: Paternity leave uptake

Several Central Academics have taken paternity leave in the last three years, with 100% uptake where eligible. The former Head led by example taking full paternity leave and the current Head has personally encouraged all eligible staff to take their full leave. None applied for shared parental leave, although the School is proactive in ensuring staff are aware it is available. Feedback from the staff concerned shows that there is a need for assistance in covering duties, managing workloads and deadlines whilst taking paternity leave.

Action Plan 10.4: Supplement the new guidance for line managers and staff around maternity leave with guidance for paternity leave and feed this into the University guidance.

(vi) Flexible working

Provide information on the flexible working arrangements available.

The School has always offered great flexibility to academic staff. Because Central Academics do not teach face-to-face they are largely able to manage their own hours and work at home when needed. Remote access to meetings is made available – and this provision is currently being improved. These aspects of the way we work are greatly valued by those with children.

Support staff are normally required to attend work within core hours (10-4), though there is no hesitation in making reasonable occasional exceptions. Three agile working requests have been made and granted to (female) staff during the period under review.

Many staff (across all categories) have requested a change to part-time working following maternity leave and these have always been granted (with one in the current period). Flexible retirement is available and has been granted to one professor during the period.

The hours of part-time staff are taken into consideration when deciding workloads and the timings of meetings and seminars.

Action Plan 11.8: Ensure that staff are trained in the use of new high quality equipment for remote access currently being installed in meeting rooms.

(vii) **Transition from part-time back to full-time work after career breaks**

Outline what policy and practice exists to support and enable staff who work part-time after a career break to transition back to full-time roles.

Part-time staff who wish to increase their working hours discuss this with their line manager and the School must then present a business case to the Faculty. The School has been extremely supportive in enabling several members of staff who have returned from maternity leave part-time to gradually increase their hours over several years as circumstances change; all requests have been granted.

The new University promotion criteria take careful account of part-time working - see 5.1(iii).

Action Plan 5.8: Ensure that part-time members of staff are asked whether they are happy with their current contracted working hours as part of the annual appraisal.

Word count for section 5.5: 220 + 161 + 208 + 60 + 85 + 159 + 76 = 969

5.6. Organisation and culture

(i) **Culture**

Demonstrate how the department actively considers gender equality and inclusivity. Provide details of how the Athena SWAN Charter principles have been, and will continue to be, embedded into the culture and workings of the department.

Since obtaining our Bronze award, Athena SWAN work has become increasingly embedded in the School. The Management Team now includes the SAT Chair, and diversity issues are routinely considered in discussion and decision making. She meets with all new members of staff to ensure that they are aware of the Athena SWAN principles and the importance that the School attaches to supporting all members of staff.

The School has always prided itself on providing a friendly, supportive and flexible working environment and there is a daily gathering of mathematics students and staff who have lunch together in the refectory, sometimes joined by partners and children. The statisticians meet for

coffee every morning. Staff Tutors participate in these activities when they are on campus and also hold regular group meetings online.

The SAT has initiated women's networking events with tea and cakes. This provides an informal opportunity to welcome new colleagues, and for PhD students and staff to get to know each other, to share advice and concerns, and celebrate successes.



Women's networking event in the common room

Refreshments before seminars, and funding to enable PhD students to participate in dinner with the speaker and staff afterwards, have contributed to strengthening a sense of community within the School.

Some members of support staff participate in School Meetings but, at the consultation meeting with this group of staff, it became clear that they would welcome greater involvement.

Action Plan 9.3: Ensure that support staff can provide input to School Meetings and are invited for relevant parts, timing these just before or after lunch if possible.

(ii) HR policies

Describe how the department monitors the consistency in application of HR policies for equality, dignity at work, bullying, harassment, grievance and disciplinary processes. Describe actions taken to address any identified differences between policy and practice. Comment on how the department ensures staff with management responsibilities are kept informed and updated on HR policies.

The Head has monthly meetings with our HR Partner, who plays a key role in ensuring that good practice is followed. Potentially difficult staff issues are flagged, so that the Partner can provide guidance and ensure that HR policies are applied consistently. The Partner remains closely involved in any developments. In almost all cases, problems are anticipated and dealt with

without the need to invoke formal procedures. The Partner ensures that the Head of School is aware of any updates to HR policies. This information is cascaded to the Management Team and other staff as appropriate.

(iii) Representation of men and women on committees

Provide data for all department committees broken down by gender and staff type. Identify the most influential committees. Explain how potential committee members are identified and comment on any consideration given to gender equality in the selection of representatives and what the department is doing to address any gender imbalances. Comment on how the issue of 'committee overload' is addressed where there are small numbers of women or men.

Name of Committee	Function	Chair	Gender balance of academic members								
			2013/14			2014/15			2015/16		
			F	M	%F	F	M	%F	F	M	%F
School Committees											
Senior Management Team	Oversees management of School	Head of School (M)	2	6	25%	3	4	43%	3	4	43%
Mathematics and Statistics Programme Committee (now Board of Studies)	Governs teaching	Programme Director (M) (now Director of Teaching (F))	7	14	33%	9	13	41%	9	13	41%
Research Committee	Responsible for PhD recruitment and support, REF, research budget	Research Director (M)	2	8	20%	2	8	20%	2	7	22%
Athena SWAN Committee	Oversees implementation of Action Plan, preparation of submission	Athena SWAN Lead (F)	5	4	56%	6	4	60%	6	4	60%
CV Review Group	Identifies candidates for promotion and rewards	Head of School (M)	-	-	-	5	8	38%	6	9	40%

Faculty Promotion Committees											
Chairs Working Group	Manages cases for promotion to professor	Dean (F) (now M)	4	5	44%	4	5	44%	5	9	36%
Academic Staff Promotions and Rewards Advisory Group	Manages cases for promotion to Senior Lecturer	Dean (F) (now M)	6	5	55%	5	4	56%	5	4	56%

Table 26: Committee membership

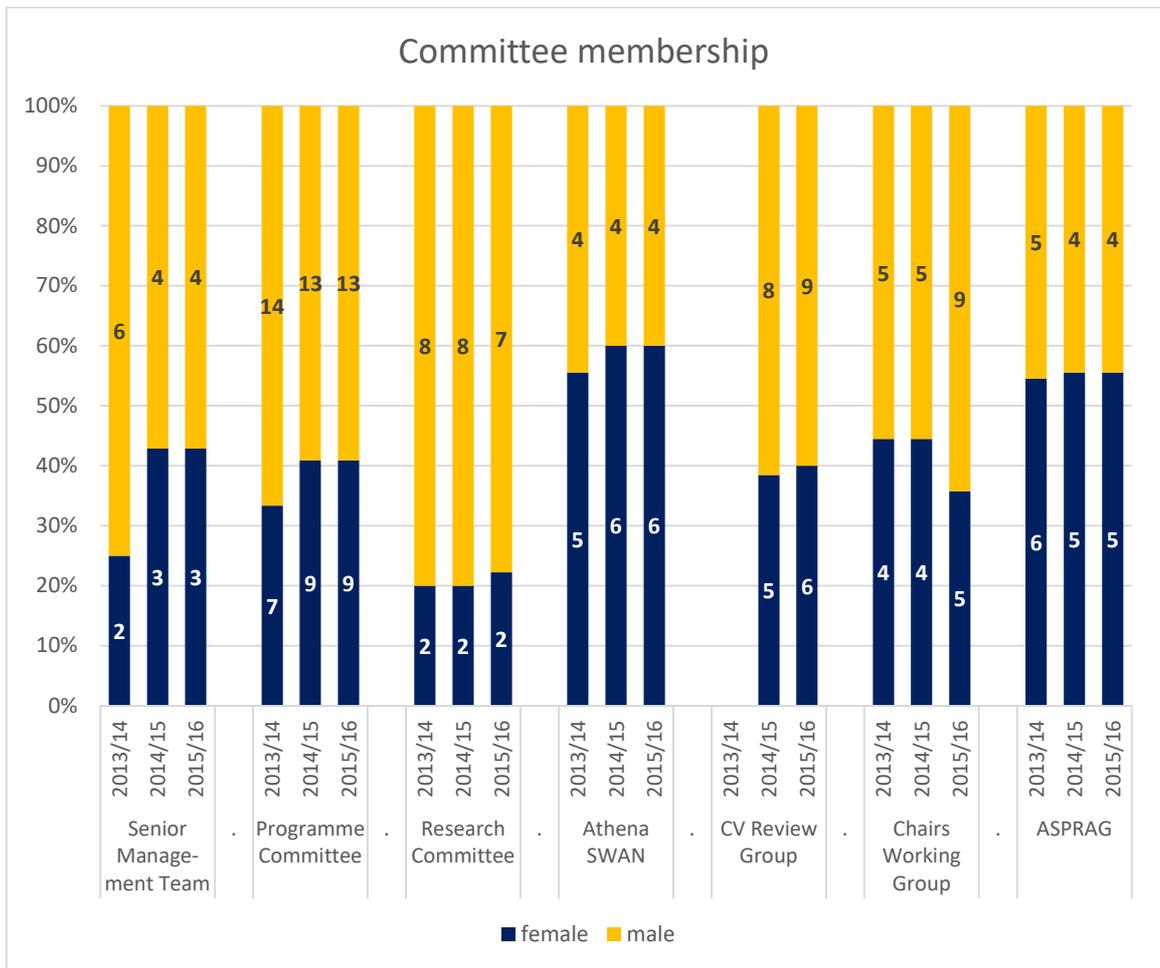


Figure 14: Representation of men and women on committees

Although committee membership is partly determined by role, most committees include nominated individuals, providing scope to address gender imbalances, and encourage wide engagement.

In the interests of fairness and transparency, an increasing number of the leadership roles now have a formal application process, including an interview. We have also made the appointment process for other roles more transparent, with the Head asking for expressions of interest with a deadline. In all cases, individual staff are encouraged to apply, with consideration for career development and the need to ensure a good gender and subject balance amongst senior roles and committee members. These actions have led to a dramatic increase in the number of women in formal leadership roles with women being appointed as the Director of Teaching, Head of Statistics Group, Staff Tutor Lead, Student Support Team Lead and Scholarship Lead – with many of these appointments giving staff the experience they needed for successful promotion cases.

The gender balance of most committees is now in line with the gender balance of the academic staff in the School and staff at all career levels are involved. There has been particular improvement in the gender balance of the Management Team (now 5M, 5F).

The proportion of women on the Research Committee is noticeably lower. Although this partly reflects the fact that the proportion of Central Academics who are women is much lower than the overall proportion of women (see 5.1(iv)), there should be one additional female member to ensure appropriate representation. We have just appointed a new Director of Research who is reviewing the membership and will improve the gender balance as high priority.

Action Plan 8.1: Improve the gender balance of the Research Committee so that it matches the gender balance of research active staff.

(iv) Participation on influential external committees

How are staff encouraged to participate in other influential external committees and what procedures are in place to encourage women (or men if they are underrepresented) to participate in these committees?

The School has a strong tradition of members playing leading roles on national committees. The School is very supportive of such activity which is recorded as part of the formal workload allocation and contributes to cases for promotion and special awards. The Head actively encourages staff to respond to any advertised vacancies and engages with calls for nominations.

Both female professors have particularly high profile external roles in supporting women in mathematics and the history of mathematics respectively, e.g. through their work as Council members of the London Mathematical Society. A female Staff Tutor plays a leading role in outreach and is a Council member of the UK Mathematics Trust. Two recently retired male professors have been Vice Presidents of the Royal Statistical Society.

(v) Workload model

Describe any workload allocation model in place and what it includes. Comment on ways in which the model is monitored for gender bias and whether it is taken into account at appraisal/development review and in promotion criteria. Comment on the rotation of responsibilities and if staff consider the model to be transparent and fair.

Members of the School discuss workload plans for the following year at their annual appraisal, informed by feedback from the annual CV review meeting. Staff then complete the electronic workload planning system specifying the number of days they expect to spend on identified activities, including writing bids for grants, Athena SWAN and other committees, outreach and work for external organisations as well as writing new teaching material and research/scholarship papers.

The workload plans are scrutinised at School and Faculty management level to ensure that overall allocations are fair and that all tasks are covered appropriately. The Athena SWAN committee now receives a breakdown of the workload from the previous year by gender and the main headings of research, teaching and administration. The first year showed that women had a higher teaching load but this was reversed the following year when many of these women took study leave to compensate for their heavy teaching loads during the previous year.

Statistics is the only group with transparent workload allocations. The Head of Group produces a list of who is carrying out which jobs, meeting with all individuals to discuss allocations to ensure a fair distribution and circulating the agreed list to the group. We will roll out their good practice to the rest of the School.

Action Plan 5.1: Ensure that all groups have transparent workload allocations. Statistics lead to meet with other group leads and support them in implementing her good practice.

In 2015, the new Head met with every member of academic staff individually in order to get a more complete understanding of individual workloads, and also met with each of the different groups to gain a clearer picture of who was carrying out which teaching tasks within each group. Staff (especially Staff Tutors) greatly appreciated the individual meetings with the Head and he will now hold them biennially. The Head meets annually with each curriculum manager.

An important aspect of workload planning is to ensure that staff fill gaps in their CV identified at the annual review meeting, including evidence of leadership required by the promotion criteria. The number of named leadership roles in the School is increasing. These are usually time-limited (typically three years) encouraging rotation and providing opportunities for colleagues to gain experience.

There are also opportunities to chair the production and presentation of our teaching modules. The allocation of the role of production chair is carefully discussed. The Statistics group demonstrates good practice by regularly rotating the presentation chairs of their modules. Other groups do not, and we address this in our Action Plan. We also plan to introduce deputy chairs of committees, providing further opportunities for leadership development.

Action Plan 5.4: Increase the rotation of staff in the roles of chairs of presentation for teaching modules.

Action Plan 5.5: Introduce new role of deputy chair for committees.

(vi) Timing of departmental meetings and social gatherings

Describe the consideration given to those with caring responsibilities and part-time staff around the timing of departmental meetings and social gatherings.

Meetings are scheduled between 10 and 4.30 (with most finishing by 4). Many meetings involve Staff Tutors and are therefore planned well in advance to allow staff to make appropriate arrangements and to minimise their travelling.

In our Bronze Action Plan, we introduced an annual staff consultation regarding seminar timings which are adjusted if necessary to take account of the changing needs, including caring responsibilities, of group members. Currently the Statistics seminar is at 11.00 and the Mathematics seminar is at 3.30.

As described in 5.6(i), the main daily social gatherings each are over coffee and lunch. The women's tea and cake events finish in time for women to pick up children and larger-scale networking events are held at lunchtime on days when Staff Tutors are likely to be on campus.

As described in 5.3(iii), staff (especially Staff Tutors) often join meetings remotely.

(vii) Visibility of role models

Describe how the institution builds gender equality into organisation of events. Comment on the gender balance of speakers and chairpersons in seminars, workshops and other relevant activities. Comment on publicity materials, including the department's website and images used.

In our Bronze Action Plan, we introduced a target of 20% female speakers for seminars (to match the proportion of female mathematics academics in the UK); we have consistently exceeded this target.

	2013-14			2014-15			2015-16		
	F	M	%F	F	M	%F	F	M	%F
External speakers	7	21	25%	9	19	32%	10	34	23%
Internal speakers	2	5	29%	1	12	8%	1	7	12%
Total	9	26	26%	10	31	24%	11	41	21%

Table 27: Gender balance of seminar speakers

Staff have responded well, suggesting a diverse range of speakers of excellent quality. Recently, Professor Caroline Series FRS gave an excellent seminar on the work of the first female Fields Medallist. Caroline also described the work of international organisations for women mathematicians at a lunchtime event.

We are aware of the need to encourage more women in the School to speak at internal events.

We noted that the School Christmas Lecture to local sixth formers had almost always been given by a man. Two of the subsequent three speakers were female and there is now a target of alternating male and female speakers.

Previously, our website had very few images of women. In 2015, the School launched a new website introducing some new features with images and text about both male and female students and staff:

- “Life in the School”, describing the working environment as well as covering the School’s commitment to women in mathematics.
- “PhD student profiles”, as part of a revamped section for PhD recruitment.
- “Student stories”, documenting the success of former students after completing their degrees.
- “Research highlights”, highlighting staff research work.

We also noted that the student prospectus contained predominantly male images. Following discussions with Marketing, the prospectus has been revamped, and now has a variety of images with a good gender balance and several case studies and quotes from female students.

Action Plan 11.2: Continue to encourage staff to suggest a diverse range of seminar speakers, and encourage more internal female speakers.

Action Plan 11.4: Invite male and female speakers to give the Christmas Lecture in alternate years.

Action Plan 11.5: Liaise with marketing and website group to ensure the increased visibility of women in the student prospectus and on the website is maintained and updated.

(viii) Outreach activities

Provide data on the staff and students from the department involved in outreach and engagement activities by gender and grade. How is staff and student contribution to outreach and engagement activities formally recognised? Comment on the participant uptake of these activities by gender.

	PhD student	Research Associate	Lecturer (CA)	Lecturer (ST)	Senior Lecturer (ST)	Professor
Male	2	1	1	0	1	2
Female	3	0	1	2	2	2

Table 28: Students and staff involved in outreach

Table 28 shows those students and staff involved in outreach during 2013-16. Men and women from PhD students up to professors (including the male Head) are actively involved in a range of activities and this work is highly valued by the School. Our workload planning system allows

outreach to be recorded and three of the successful promotion cases during this period featured outstanding contributions in this area (one case for a female Professor and two for Staff Tutor promotions to Senior Lecturer – one male and one female). One of our female PhD students showed a particular flair for outreach. This was encouraged and she subsequently secured an outreach position at the University of Edinburgh.

One of the highlights of the current period has been work with the Science Museum in London. Professor June Barrow-Green is a member of the Science Museum Mathematics Project External Advisory Panel and, in a recent Festival of Mathematics at the Science Museum, two of the eight teams involved groups of students and staff from the School.



PhD students taking part in the Science Museum Festival

The School has a long tradition of running Masterclasses for bright school pupils through a scheme organised by the Royal Institution. Dr Katie Chicot (a Staff Tutor) is particularly involved in this work. Katie is also a director of the UK Mathematics Trust (UKMT); this organises national mathematics competitions and other mathematical enrichment activities for secondary age children and is responsible for training the UK Mathematical Olympiad Team and the new team for girls. Some of our PhD students act as UKMT mentors.



Katie doing a demonstration at a masterclass

Our two female professors are involved in activities specifically aimed at girls and women, including speed mentoring for girls on the London Eye, visits to schools and to other universities.

Several members of the School, have acted as contributors or academic consultants to programmes such as “In Our Time” and “More or Less” which aim to make mathematics accessible to the general public.

Our outreach activities reach hundreds of thousands of participants in the public arena, and we do not have information on the gender breakdown.

Word count for section 5.6: $228 + 96 + 271 + 124 + 416 + 143 + 262 + 340 = 1880$

Word count for section 5: $1613 + 250 + 1674 + 359 + 969 + 1880 = 6745$

SILVER APPLICATIONS ONLY

6. CASE STUDIES: IMPACT ON INDIVIDUALS

Recommended word count: Silver 1000 words

Two individuals working in the department should describe how the department's activities have benefitted them.

The subject of one of these case studies should be a member of the self-assessment team.

The second case study should be related to someone else in the department. More information on case studies is available in the awards handbook.

Case Study 1: June Barrow-Green (Professor of History of Mathematics – Central Academic member of SAT)



June giving a talk about her research at a conference she organised

I have an unconventional career trajectory having worked for eight years in an art gallery before doing a first degree in mathematics, working in the City, and doing an MSc in mathematical physics, after which I joined the OU in 1989 as a full-time research student in history of mathematics. I chose the OU because at that time it was the only university in the country where it was possible to do a PhD in history of mathematics within a mathematics department (rather than an arts department). It turned out to be the right choice!

After I completed my PhD, my supervisor successfully applied for a 3-year Leverhulme grant for me to continue my research. I then held temporary research and teaching positions at the OU until appointed to a permanent lectureship in 2002. The journey

from temporary to permanent member of staff was not easy - although I was strongly supported in my work by many colleagues, the opportunity to be a lecturer in the history of mathematics did not arise for many years.

After this difficult time, it took some cajoling from colleagues to persuade me to apply for promotion. But in 2010, with much encouragement and help from my Department and pure mathematics colleagues, I was promoted to Senior Lecturer. This endorsement of my work prompted a change in my attitude towards promotion and in 2014, with further encouragement and support from colleagues, both in the Department and in the Faculty, I applied for promotion to Professor. Unfortunately, the application was unsuccessful due in large part, it seemed, to a lack of understanding of the nature of my research discipline. It was a tough setback, but my Head of Department and the Dean of the Faculty could not have been more supportive and I received an enormous amount of help to strengthen the case which on resubmission in 2015 was successful.

The Department encourages participation in external activities and a substantial part of my case for promotion to professor was based on my external roles in mathematical societies and organisations (LMS, BSHM, ICHM) and outreach work (radio, television, museums, schools, etc.), as well as an important editorship, all of which I have been able to include in my workload plan as an alternative to taking on roles within the OU. Having this flexibility has enabled me to make a much bigger and more substantive contribution to my research discipline, nationally and internationally, than I would have been able to do otherwise.

I feel very fortunate to be part of what is, and has been for the last few years, a really united and inclusive Department, with many supportive colleagues and a lively group of PhD students. The work of the Athena SWAN group has been a positive catalyst behind many of the improvements, not least in bringing together the women of the Department over tea and cake!

Word Count 480

Case Study 2: Rachel Hilliam – Staff Tutor (Senior Lecturer)



Rachel (left) as Student and Support Team (SST) lead, with the SST executive team

Following my appointment as Staff Tutor in November 2011 I have been given the opportunity to take on a number of leadership roles within the Department enabling me to advance my career. The University operates a four year probation period for academic staff with each member of new staff assigned to a probation supervisor; also their appraiser. My appraiser was a highly experienced member of the Mathematics and Statistics Staff Tutor Group. He was extremely supportive in allowing me to drive my career direction whilst ensuring I was given opportunities within the Department to pursue areas of interest. He made certain I talked to the correct people within the Department and University to engage with the work that interested me, whilst always suggesting areas of engagement I would never have considered. For example, in the last five years I have led the team delivering the new level 1 statistics module, been appointed as the lead academic for the Mathematics and Statistics Student Support

Team, elected to service on the University's Senate and most recently appointed as Director of Teaching for Mathematics and Statistics.

One area of departmental support which deserves special mention is the promotions process. I was promoted to Senior Lecturer in 2015, following an early sign off of my probation in 2014. The Department was keen to support my promotion from an early stage and as such many suggested areas of activity were as a result of this aim. Support was provided from both the Head of Department and a number of departmental professors when drafting out an appropriate case and providing references. This meant what could have been a very demoralising process was in fact a supportive and nurturing one.

As a statistician I participate in the Statistics Group seminars, but also join their regular coffee meetings. This helped me quickly feel part of the group, but also meant I could easily explore research areas. Despite this, the varying demands of the Staff Tutor role make it difficult to set aside time and space for research and scholarship. The Department's Research Director has acted as my research buddy for the last two years; by reporting to him how I have used my study leave and setting out my research goals I succeeded in maintaining a research profile.

This last year has been particularly challenging due to many University initiatives; including closing the majority of the regional centres and introducing a plethora of new systems. This has taken large amounts of time and left Staff Tutors feeling demoralised and demotivated. If the Department, led by the Athena SWAN group, had not offered a range of ways in which to support Staff Tutors; including drop in sessions, scholarship sessions for Staff Tutors and the up and coming Staff Tutor conference, I for one would definitely have left the University. There is still work to be done in this area, but my decision to remain is due to the supportive nature of colleagues within the Department.

Word count: 496

7. FURTHER INFORMATION

Recommended word count: Bronze: 500 words | Silver: 500 words

Please comment here on any other elements that are relevant to the application.

Although it has been agreed that the career development of ALs should not be explored in depth within OU submissions, the SAT is aware that a number of our ALs have progressed to permanent positions (such as Staff Tutors) within the OU and so we carried out an in-depth survey to obtain a better understanding of the issues surrounding their career progression.

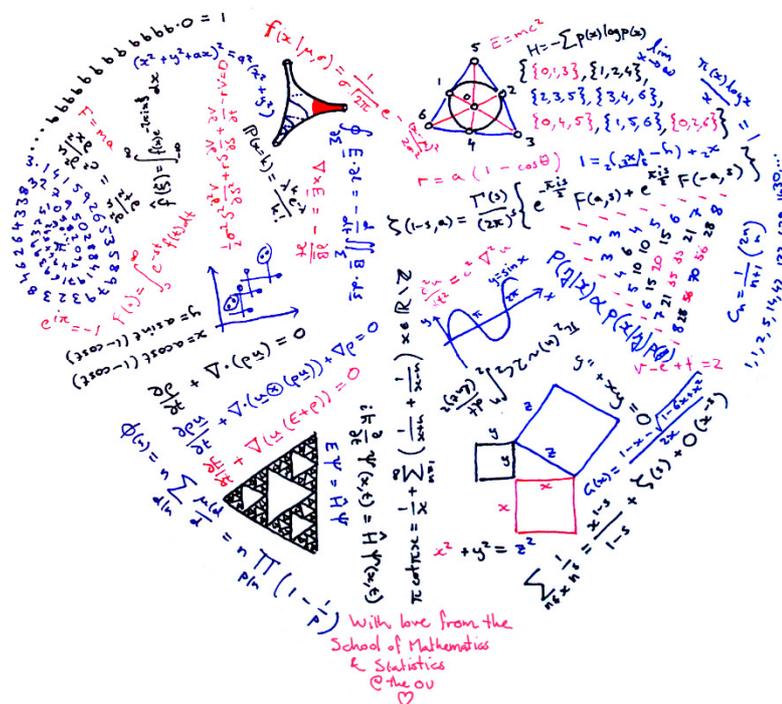
We will analyse this fully as part of our new Action Plan but initial findings are that the main motivation for taking on the role is flexibility whilst providing future opportunities and supporting the expansion of learning in a particular area. Many female ALs are combining this work with childcare and other caring responsibilities. ALs gain satisfaction and enjoyment from the role but are concerned about the impact of current changes. The feedback on the support given by the Staff Tutors was overwhelmingly positive.

All new ALs are mentored by an experienced AL and regular staff development sessions are run by Staff Tutors. After successful completion of probation, they are encouraged to gain HEA accreditation through the OU's APPLAuD scheme. ALs now have biannual appraisals with their Staff Tutor.

The OU is currently undertaking a review of the AL role with the aim of giving greater security.

Action Plan 4.7: Produce full report of the survey of Associate Lecturers and feed in to University review of their contracts.

Word count for section 7: 209



Our School Maths heart created collaboratively for an OU twitter campaign #loveparttime

Total word count: 496 + 465 + 976 + 2097 + 6745 + 480 + 496 + 209 = 11,964

Recommended: 500 + 500 + 1000 + 2000 + 6500 + 500 + 500 + 500 = 12000

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
1. UNDERGRADUATE STUDENTS				
Section Leaders: Deputy Director of Teaching (member of SAT and former Programme Director) in consultation with the Director of Teaching and the School Teaching Manager				
1.1	Ensure Athena SWAN issues are discussed annually by the Board of Studies.	The Board of Studies is the School's mechanism for managing its curriculum. The Board has the power to ratify recommendations for action.	Annual discussion at the June meeting of the Board, led by the Deputy Director of Teaching.	Board of Studies fully aware of issues and proposed actions identified by SAT, actions and time scale agreed.
1.2	Obtain and evaluate data on progression through undergraduate qualifications and on performance on individual modules, broken down by gender. Formulate new actions where appropriate.	Progression through modules and qualifications is a fundamental measure of student success. We now have sufficient data to analyse following the 2012 changes to qualification based study.	Summer 2017	SAT aware of any gender issues around progression and performance and appropriate actions taken.
1.3	Obtain and evaluate more detailed information on the performance of students on the BSc in Mathematics and Statistics. In particular, compare the performance of men and women at the end of first year for students choosing this qualification with students choosing the BSc in	Over the last three years, the proportion of men getting a first has been higher than the proportion of women, for students on the BSc in Mathematics and Statistics. This has a common first year with the BSc in Mathematics.	End of 2017	SAT aware of any gender issues around progression and performance and appropriate actions taken.

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
	Mathematics. Formulate new actions where appropriate.			
1.4	Create a dialogue between the SAT and the new Mathematics and Statistics Student Support Team (SST) led by the new Academic lead for the SST who is a member of the SAT.	The Student Support Team deals with day-to-day non-academic queries from students, especially regarding course choice and has recently moved to Manchester. Two-way dialogue is a mechanism to identify, in a 'qualitative' way, any barriers to women.	2017 onwards	SAT aware of any gender issues highlighted by Student Support Team. Formulate new actions if appropriate, and make recommendations to Board of Studies.
1.5	Produce plan for re-development of the Mathematics Education modules, and extend life of current modules to allow time for development.	This area of the curriculum attracts a high proportion of women. The current modules are coming to the end of their life.	Throughout 2017	Students able to continue to study the BSc Mathematics and its learning with appropriate range of modules. Proportion of women studying modules is maintained.
1.6	Implement the plan for re-development of the Mathematics Education modules.	As above.	From 2018	Up-to-date modules and qualification(s) in Mathematics Education, attracting a high proportion of women.
1.7	Ensure there is representation from Mathematics Education on the groups planning and developing the Faculty's Centre for STEM Education. Use this as a mechanism for sharing of good practice.	This is a new initiative being driven by the Faculty. It has the potential to impact on a large number of students, with a likely high proportion of females.	2017 onwards	Establishment of good practice in new Centre for STEM Education with modules attracting and retaining a high proportion of women.

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
1.8	Liaise with the School of Physical Sciences SAT to analyse the recruitment and performance of students for the Mathematics and Physics degree and develop appropriate actions.	The School of Physical Sciences is responsible for the physics modules on the new Mathematics and Physics degree. This qualification has a low proportion of women compared with our other qualifications.	2017 onwards	Good understanding of any issues affecting the recruitment and performance of women on the Mathematics and Physics qualification and appropriate actions introduced.
1.9	Establish a new STEM working group to enable the SATs to work together on student recruitment and performance.	Many of our modules are studied by students registered on qualifications which are the responsibility of other Schools in the new STEM Faculty.	2017 onwards	STEM SATs working together to address issues affecting the recruitment and performance of women.
2. TAUGHT POSTGRADUATE STUDENTS				
Section Leaders: Staff Tutor member of SAT (with contributions to the MSc) in consultation with the MSc Academic Lead and the Director of Teaching				
2.1	Advertise the student loans now available to students studying the MSc in Mathematics and the benefits that the MSc can bring to a career, using case studies and on-line discussion session for students.	Survey found that female students are worried about paying for study at postgraduate level and are motivated to study if they think it will help them to obtain a job that they enjoy.	Annually beginning in Spring 2017	Increased number of students (especially women) studying MSc modules.
2.2	Contact high performing undergraduate students to congratulate them on	Women in particular may need personal encouragement in order to take the next step.	Communication from HoS to all students	Increased number of students (especially women) studying MSc modules.

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Athena SWAN Silver Award Submission
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Action	Description of Action	Rationale	Timescale	Success Measure
	performance, encourage them to think about postgraduate level study and advertise loans available.		graduating with a first sent annually beginning in Summer 2017. Investigate feasibility of an additional letter to the top 10 female and the top 10 male students to send from Summer 2018.	
2.3	Review the postgraduate provision, including the possibility of introducing an MMath. In particular review the impact of the availability of new loans for postgraduate study.	Female students are worried about the fees for postgraduate study and the rules for loans have recently changed.	Autumn 2018	School makes informed decision as to whether to introduce an MMath and whether this would increase the number of students (especially women) studying at a higher level.
2.4	Obtain detailed data on progression through the postgraduate qualifications and on performance on individual modules, broken down by gender. SAT to formulate actions where appropriate and report to Board of Studies.	Data shows lower proportion of women graduating than registering but it is not clear whether this is due to progression issues or is just a time lag issue due to increasing registrations by women and 6 year period of study for MSc.	Autumn 2017	SAT and Board of Studies aware of any issues around progression and performance.

Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
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Action	Description of Action	Rationale	Timescale	Success Measure
2.5	Contact all students claiming the intermediate qualifications to encourage them to continue and identify any concerns.	The proportions of women claiming the intermediate postgraduate qualifications are higher than the proportion graduating from the MSc but the numbers are small and the reasons are unclear.	Summer 2017 onwards	Increased proportion of women graduating from the MSc. SAT and Board of Studies aware of any concerns around progression.
2.6	Carry out interviews with students on the MSc to obtain qualitative information on progression.	See 2.4 and 2.5	Spring 2018	SAT and Board of Studies have high quality information on progression of students through the postgraduate qualifications.
3. RESEARCH STUDENTS				
Section Leaders: Director of Research and Postgraduate Tutor				
3.1	Continue to ensure that advertising for PhD students includes wording that particularly encourages women to apply.	There is a big drop nationally in proportion of women from UG to PhD.	Annually in January.	Good proportion of women applying for PhD places.
3.2	Continue to ensure that female PhD applicants meet female staff and students when they visit the School, for example over lunch.	Female role models can ensure that female applicants know they will be welcomed into the School.	Annually in February / March.	Female applicants accepting offers of PhD places.
3.3	Ensure that interview panels for female PhD students include at least one female member.	Some previous female applicants would probably have been more at ease with a mixed panel.	From Spring 2017 onwards	Good proportion of female applicants being offered and accepting PhD places.

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
3.4	Contact successful MSc students individually to encourage them to consider applying for a PhD place.	Several male PhD students previously studied the MSc but only one female (just starting). Women in particular may need personal encouragement.	From Autumn 2017 onwards	More female MSc students applying for PhD places.
3.5	Continue to ensure that all female PhD students have a female supervisor or third party monitor.	It is important for female students to have a link with a female member of staff.	Annually in October.	All female PhD students have a link with a female member of staff.
4. STAFFING				
Section Leaders: SAT Chair in consultation with Head of School and Director of Teaching				
4.1	Ensure that the Mathematics Education group has sufficient permanent members of staff to run a refreshed curriculum.	The group has been under review for a number of years and currently has only one permanent member of staff.	One Lecturer made permanent by end of 2016. New Senior Lecturer appointed by Spring 2017. Staffing levels to be reviewed in Summer 2017.	Mathematics Education staff feel secure and are able to produce refreshed curriculum that continues to attract a high proportion of women.
4.2	Produce a pack for appointment panels with outlines for adverts and further particulars and guidance for shortlisting and interviewing.	Will be particularly beneficial to grant holders with limited experience of appointing staff, and give a written record of best practice rather than relying on individuals.	Spring 2018	Pack produced and disseminated. Good practice is followed consistently in drawing up further particulars and adverts, shortlisting and interviewing.

**Open University Department of Mathematics and Statistics
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Action	Description of Action	Rationale	Timescale	Success Measure
4.3	Organise a School training session on unconscious bias and fair selection.	Many members of staff have not renewed their fair selection training for some time.	Autumn 2018	All School staff on appointment panels have up to date training in unconscious bias and fair selection.
4.4	Review good practice ideas learned from LMS Good Practice Workshop on Recruitment and implement appropriate actions.	Workshop will provide opportunity to learn good practice ideas from other departments.	Review ideas in Spring 2017 and draw up plan for actions.	New ideas learnt and successfully implemented.
4.5	Continue to use women in maths mailing lists to advertise jobs and actively encourage suitable women to apply.	Women are less likely to think they are qualified for a job and need more encouragement to apply.	Ongoing	Proportions of women applying for jobs match proportions of women in the field.
4.6	Continue to hold discussions with the Dean over the impact of new University initiatives on Staff Tutors, and identify actions that can be taken to improve the situation.	Staff Tutors (mainly female) are currently dealing with an exceptionally high administrative load and changing working conditions and tasks due to major initiatives including the closure of the regional offices.	Ongoing	Staff Tutors have improved working conditions.
4.7	Produce full report of survey of Associate Lecturers and feed into University review of their contracts.	We carried out a survey of ALs as part of our Bronze plan. The University is currently discussing the nature of AL contracts.	Spring 2017	SAT and University Management has good understanding of the career aspirations of ALs and any impact this may have on applications for the role of Staff Tutor.

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
5. WORKLOAD ALLOCATIONS AND APPRAISALS				
Section Leaders: Head of School (member of SAT) in consultation with appraisers				
5.1	Ensure that all groups have transparent workload allocations. Statistics lead to meet with other group leads to support them in implementing her good practice in discussing workloads with individuals and producing and circulating an agreed list of workload for all members of the group.	Staff in groups other than the Statistics Group are unaware of how work is spread round the group and do not know when to agree to take on new tasks.	Groups to have improved transparency by Summer 2017 and full transparency by Summer 2018.	Members of staff can make informed decisions as to whether it is reasonable for them to take on new tasks, and feel that tasks are shared around fairly.
5.2	Head of School to hold biennial individual meetings with each member of academic staff.	Useful for Head of School to have an overall picture of staff contributions and concerns. Meetings especially appreciated by Staff Tutors.	Odd years in Spring	Head of School is aware of contributions and concerns of every member of academic staff, particularly regarding workloads.
5.3	Head of School to hold annual individual meetings with all curriculum managers.	Curriculum managers have a different perspective on progress of teaching projects to that of the academics and may have difficult interactions with academics.	Annually in Spring	Head of School is fully aware of progress on teaching projects and can address any concerns of curriculum managers.
5.4	Increase the rotation of staff in the roles of chairs of presentation for teaching modules.	Staff gain more experience of leadership which is useful for promotion.	In place for all modules by Summer 2018.	For each module, the role of chair of presentation is for a fixed term.

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
5.5	Introduce new role of deputy chair for School committees (including teaching presentation teams).	Staff gain more experience of leadership which is useful for promotion and there is provision for cover.	Spring 2017	Each School committee has a deputy chair.
5.6	Obtain annual report on gender breakdown of committee membership and consider when renewing committee membership.	Committees should be representative of the groups of staff that they serve.	Annually in Spring.	Gender breakdown of committee matches gender breakdown of group of staff served by committee.
5.7	Remind appraisers to discuss training needs and review effectiveness as part of the annual appraisal.	This happens routinely for Staff Tutors and support staff but less so for Central Academics. Training can help with career development.	Annual reminder from Summer 2017.	Training is discussed at appraisals.
5.8	Ensure that part-time members of staff are asked whether they are happy with their current contracted working hours as part of their appraisal.	Part-time members of staff often wish to change their hours to suit their changing needs.	Annual from Summer 2017	Part-time members of staff are happy with their contracted working hours.
5.9	Develop a systematic method of enabling staff to be released from teaching duties for a number of months following a period of parental leave or with a heavy teaching or administrative load. Support this through the travel budget.	Staff who have recently had a period of parental leave or heavy teaching / administrative duties need time to concentrate on research / scholarship.	To be in place by Summer 2019 as part of a more transparent workload allocation model.	All staff are able to get their research / scholarship back on track after a period with other commitments.

**Open University Department of Mathematics and Statistics
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Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
6. PROMOTIONS AND REWARDS				
Section Leaders: School rep on the Faculty Committee for Promotion to Senior Lecturer (Chair of SAT) together with Head of School and School rep on the Faculty Committee for Promotion to Professor				
6.1	Continue discussions with the Dean and the University Promotion Committee over the implementation of the new promotion criteria for Staff Tutors.	The new promotion criteria are identical for Central Academics and Staff Tutors (unlike the old criteria). There is some flexibility but this is not explicit.	Autumn 2016 – Summer 2017	Clear guidance produced and disseminated for how new promotion criteria will be applied to Staff Tutors to take account of the nature of their contracts.
6.2	Hold briefing session for Staff Tutors on the new promotion criteria.	Staff Tutors are unclear how their work matches the new promotion criteria	Autumn 2017	Staff Tutors have clarity about the new promotion criteria and continue to be successfully promoted to Senior Lecturer, with some beginning to aim for promotion to professor.
6.3	Provide formal long-term mentoring for staff to support career development leading to promotion to professor.	There are several members of staff (many female) recently promoted to SL. The new promotion criteria offer new opportunities.	Spring 2017 onwards	Group of staff (with good gender balance and mix of Central Academics and Staff Tutors) working successfully towards promotion to professor, supported by mentors.
6.4	Encourage staff to apply for appropriate leadership positions, committee memberships (both internal and external) and leadership training programmes to support their promotion prospects.	Women, in particular, often need encouragement to apply for such positions.	Ongoing	Continued increase in number of women in senior leadership positions.

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
6.5	Introduce additional meeting of CV Review Group to discuss staff rewards. Obtain gender breakdown of staff receiving rewards.	The timing of the current meeting is good for promotions but a bit early for rewards.	New meeting added in Summer 2017.	Discussion of staff rewards takes place close to call for nominations. Gender balance of those receiving rewards matches gender balance of School staff.
7. SCHOLARSHIP ACTIVITIES				
Section Leaders: Experienced appraiser of Staff Tutors and Maths Education Lectures (Staff Tutor member of SAT) together with School Scholarship Leads				
7.1	Develop a programme of scholarship seminars / workshops.	The new promotion criteria include a teaching profile which requires scholarship publications. Will be the catalyst for developing a proactive and valued scholarship community. Such a community is likely to comprise largely of Staff Tutors (mostly female).	Regular informal seminars / workshops during 2017 leading to a formal monthly programme being in place for 2018.	Active programme of scholarship seminars / workshops. Staff producing scholarship publications.
7.2	Develop regular meetings to support staff to gain HEA recognition at Fellowship or Senior Fellowship level.	The new promotion criteria include a teaching route which requires HEA recognition.	Regular meetings (initially monthly and then as required) to begin in January 2017.	Staff successful in obtaining HEA recognition at Fellowship or Senior Fellowship level.
7.3	Provide mentors (including funded external consultants) to support staff as they carry out scholarship projects.	Many of these activities are new for staff. An external consultant ran a very successful day to launch the new scholarship programme and has agreed to provide further mentoring support.	Mentors offered to staff from January 2017 onwards.	Staff producing scholarship publications.

**Open University Department of Mathematics and Statistics
Athena SWAN Silver Award Submission
Action Plan**

Action	Description of Action	Rationale	Timescale	Success Measure
8. RESEARCH ACTIVITIES				
Section Leaders: Research Director in consultation with Staff Tutor rep and REF leader members of Research Committee				
8.1	Improve gender balance of the Research Committee.	Research Committee has 20% female membership which is lower than proportion of research active staff who are female.	End of 2016 and then review membership annually.	Proportion of women on Research Committee matches proportion of research active staff who are female.
8.2	Continue to ensure that the Research Committee has a Staff Tutor rep.	Staff Tutors have limited time for research and specific research needs.	Whenever committee membership is reviewed.	Research Committee is aware of needs of Staff Tutors and supports their research.
8.3	Continue to offer research buddies for Staff Tutors who want to be research active.	Staff Tutors have limited time for research and appreciate support from Central Academics	Annually at start of academic year.	Buddies help Staff Tutors to engage with research activities.
8.4	Mentor all research-active staff about preparations for REF2020, keeping up to date with potential changes arising from the Stern report. Ensure that workload allocations give staff the necessary amount of research time.	All staff need to be aware of requirements for the REF and be properly supported in working towards these.	2017-2019	All research-active staff make the best possible contribution to the REF and feel fully supported.
8.5	Use School budgets and lobby Faculty to provide some teaching cover for those on research grants, where needed.	For groups with small numbers of staff and high teaching loads, the work of a grant holder cannot easily be shared around the rest of the group.	Ongoing	The research time of other members of the School is not adversely affected when School members are successful in obtaining research grants.

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Action	Description of Action	Rationale	Timescale	Success Measure
9. SUPPORT STAFF				
Section Leaders: School Teaching Manager (member of SAT) in consultation with Head of School and senior Faculty managers				
9.1	Ensure that Faculty Management are aware of staff concerns over the appraisal forms and work with them to ensure that the appraisal process provides an effective means of discussing career progression aspirations.	Consultation of support staff showed that many were concerned that appraisal forms led to an emphasis on setting detailed objectives with little opportunity for discussing career progression.	Spring 2017 onwards	Support staff have annual discussion of career progression.
9.2	Explore ways in which staff can develop their skills in a less formal manner than applying for a new job or secondment.	Support staff survey showed that some staff would appreciate taking on new tasks but were reluctant to apply for a new position.	2017 onwards	Support staff find it easier to gain more experience.
9.3	Ensure that support staff can provide input to School Meetings and are invited for relevant parts, timing these just before or after lunch if possible.	Some items would be of interest to support staff, who were also concerned some reports by academics did not reflect the reality of progress on teaching projects. Enabling support staff to join for lunch would increase sense of community.	2017 onwards	Improved communication between academic and support staff with support staff with good sense of community.

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10. PARENTAL LEAVE				
Section Leaders: Central Academic member of SAT with recent experience of maternity leave together with Head of School				
10.1	Ensure that staff are aware of the new University One-Stop-Shop website for parental leave and the new guidance for line managers and staff, by emailing and running a session at a School meeting.	The OU is implementing the outcomes of a project to provide better support for maternity leave.	Spring 2017	All staff aware of the new resources for parental leave.
10.2	Ensure that all staff embarking on parental leave are offered a mentor from within the School and develop a description of the role of the mentor.	A mentor would provide additional support to the line manager and would have relevant experience	2017 onwards	All staff embarking on parental leave have the support of an experienced mentor.
10.3	Head of School to ensure that the new maternity leave guidance for line managers and staff is properly implemented.	Line managers need to be aware of the new guidance and to follow it carefully.	2017 onwards	New guidance for maternity leave is properly implemented.
10.4	Supplement the new guidance for line managers and staff around maternity leave with guidance for paternity leave.	Members of the School taking paternity leave reported that they would have appreciated support with covering their duties while on leave.	2018	Proper arrangements are in place to ensure duties are covered while staff are on paternity leave.

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Action	Description of Action	Rationale	Timescale	Success Measure
10.5	Use new School budget to provide some cover of teaching duties of staff on parental leave when needed and discuss options for additional funding from Faculty with the new Dean.	Other members of staff may lose their research / scholarship time if they have to cover teaching duties of colleagues.	2017 onwards	Other members of staff are not adversely affected when a colleague takes parental leave.
10.6	Use new School budget to provide some cover of teaching duties for staff returning from parental leave. Discuss options for additional funding with Faculty / University management. Provide increased support from the research budget for 12 months after return.	Staff returning from parental leave need time to get their research / scholarship activities back on track. Their teaching duties cannot always be covered by other members of the group. Extra support from the research budget could be used for example to invite visitors.	Ongoing	Staff returning from parental leave are given time to get their research / scholarship activities back on track.
11. ORGANISATION AND CULTURE				
Section Leaders: Central Academic member of SAT in consultation with seminar organisers, School Teaching Manager and Head of School				
11.1	Organisers of seminars to continue to provide an annual report to the SAT on gender breakdown of invited speakers.	It is easy to end up with an unrepresentative list of seminar speakers if no conscious checks are made.	Annually at end of academic year.	SAT is aware of the gender breakdown of speakers and can suggest actions if appropriate.

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Action	Description of Action	Rationale	Timescale	Success Measure
11.2	Continue to encourage staff to suggest a diverse range of speakers and encourage more internal female speakers.	It is important to invite a good mix of speakers to provide appropriate role models and give opportunities for speaking to all.	Annually before new academic year and at other calls for suggested speakers.	At least 25% of seminar speakers are female to match national proportion of UK mathematicians who are female.
11.3	Continue to have annual consultation on timings of research seminars to accommodate family and other caring commitments.	Caring commitments of staff change rapidly and it is important to make sure that timings suit all staff.	Annually before new academic year.	All members of School able to attend seminars.
11.4	Invite male and female speakers to give the Christmas Lecture in alternate years.	Before 2013 almost all speakers were male. Important for visiting school students to see both male and female role models – students normally visit for two consecutive years.	Annually in Summer when potential speakers are discussed.	Visiting school students see both male and female role models.
11.5	Liaise with marketing and website group to ensure the increased visibility of women in the student prospectus and on the website is maintained and updated.	Important for prospective students and staff to see positive role models.	Annual discussion in Summer.	Student prospectus and website includes up to date images and success stories of women leading to increased student registrations.
11.6	Continue to encourage female PhD students and postdocs to attend networking events at School and national level and provide funding to facilitate this.	Female PhD students and postdocs meet female role models and can form networks.	Ongoing	Female PhD students and postdocs participating in networking events for women.

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Action	Description of Action	Rationale	Timescale	Success Measure
11.7	Continue to organise tea and cake networking events for female members of staff and PhD students.	Staff and students meet female role models and can share experiences.	Regular events including one at start of academic year.	Majority of women participating in networking events.
11.8	Ensure that staff are trained in the use of new high quality equipment for remote access currently being installed in meeting rooms, and in participating in such meetings. Equip School seminar room to allow remote participation.	Many members of staff (especially Staff Tutors with new homeworking arrangements) benefit from being able to participate fully in meetings / seminars remotely.	Summer 2017	Staff wishing to take part in meetings / seminars remotely can do so easily and feel fully involved.