



Department Application Bronze Award

**School of Mathematics,
Computer Science and
Engineering**



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	City, University of London	
Department	School of Mathematics, Computer Science and Engineering	
Focus of department	STEMM	
Date of application	April 2019	
Award Level	Bronze	
Institution Athena SWAN award	Date: November 2016	Level: Bronze
Contact for application Must be based in the department	Dr Sumsun Naher Dr Anton Cox	
Email	Sumsun.Naher@city.ac.uk A.G.Cox@city.ac.uk	
Telephone	020 7040 4217 020 7040 0142	
Departmental website	https://www.city.ac.uk/mathematics-computer-science-engineering	

Glossary of abbreviations and Total word count

AD	Associate Dean
ARQM	Annual Research Quality Monitoring
AS	Athena SWAN
ASIG	Athena SWAN Implementation Group
BAME	Black, Asian, and Minority Ethnic
BoS	Board of Studies
CS	Computer Science
E&D	Equality and Diversity
ECR	Early Career Researcher
ECU	Equality Challenge Unit
ED&I	Equality, Diversity, and Inclusion
EDC	Equality and Diversity Committee
EEE	Electrical and Electronic Engineering
ExCo	Executive Committee
FT	Full-time
FTE	Full-time equivalent
HESA	Higher Education Statistics Agency
HoD	Head of Department
HR	Human Resources
KIT	Keep In Touch
LEaD	Learning Enhancement and Development
LIS	Library and Information Science
MCSE	Mathematics, Computer Science and Engineering
MEA	Mechanical Engineering and Aeronautics
PDR	Post-Doctoral Researcher
PG	Postgraduate
PGR	Postgraduate Research
PGT	Postgraduate Taught
PI	Principal Investigator
PS	Professional Services
PT	Part-time
RC	Research Centre
RA	Responsibility Allowance
RAE	Research Assessment Exercise
REF	Research Excellence Framework
SAT	Self-assessment team
SMT	Senior Management Team
STEM	Science, Technology, Engineering and Mathematics
UG	Undergraduate
WISE	Women in Science and Engineering

Sections 1-7	
Actual word count	11,471 (This excludes headings, sub-headings, tables, graphs and references to action points.)
Total word limit for application	10,500 + 800 + 200 = 11,500 (see attached email from ECU)

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.

Section 1	
Actual word count	661
Recommended word count	500 + 200 for letter from new Dean



School of Mathematics, Computer
Science and Engineering

Professor Roger Crouch PhD MSc DIC DSc
Professor of Computational Mechanics

Northampton Square
London EC1V 0HB
T +44 (0)20 7040 8891
rogercrouch@city.ac.uk

www.city.ac.uk

Equality Charters Manager
Equality Challenge Unit
7th Floor, Queens House
55/56 Lincoln's Inn Fields
London WC2A 3LJ

5 March 2019

Dear Dr Ruth Gilligan

I am very happy to offer my support and endorsement of this Bronze Athena SWAN application for the School of Mathematics, Computer Science and Engineering. I confirm the information presented in the application (including qualitative and quantitative data) is an honest, accurate and true representation of the School.

Throughout my time as Dean (from 2013 until 2018), I have been committed to advancing gender equality within the School and in STEM subjects more generally. For example, I have organised a number of high profile Design-themed events involving leading women engineers both to promote our programmes and engage in outreach work in local schools. I also introduced an Ada Lovelace Day on my arrival in 2013. I introduced the requirement that all recruitment shortlists have at least one female and one male candidate (or else be re-advertised), and as a result we have seen an increase in the proportion of new academic appointments who are women.

I have been very appreciative of the work of the SAT, and have supported the team in a number of ways. I was a member of the University Athena SWAN Implementation Group that provided oversight of and guidance to the self-assessment team, and I also enabled School funding of a part-time Executive Assistant to help in the administration of the Team's work. The SAT reported regularly to the School Executive Committee. The former involved several senior staff to ensure that the actions arising were embedded in the School processes.

Our School serves a student population that is highly diverse – culturally, ethnically, and socially and has an enviable record of encouraging those from disadvantaged backgrounds. Nevertheless we recognise that we need to continue to do more to increase the proportion of women students and staff, and to encourage women to enter our disciplines. The Action Plan arising from this application will enable us to better develop and sustain our processes and practices around gender equality. These are vital not only for a healthy recruitment of students and internationally excellent academics, but also to foster an open and supportive environment for all our staff.

I fully endorse the application and the Action Plan and am confident that the embedding of these actions will help to further increase the diversity of our School.

Yours sincerely

Roger Crouch



School of Mathematics, Computer
Science and Engineering

Professor Rajkumar Roy PhD CEng FCIRP

Dean
Northampton Square
London EC1V 0HB
T +44 (0)20 7040 8422
r.roy@city.ac.uk

www.city.ac.uk

04 March 2019

Equality Charters Manager
Equality Challenge Unit
7th Floor, Queens House
55/56 Lincoln's Inn Fields
London WC2A 3LJ

Dear Dr Ruth Gilligan,

As the recently appointed Dean of the School of Mathematics, Computer Science and Engineering I am delighted to support this Athena SWAN application.

The SAT have identified three priority areas through their thorough self-assessment process: tackling bullying and harassment; supporting staff through a fair and transparent promotions process, with the aim of increasing the proportion of women professors in the School to 20% by 2022; and ensuring equitable treatment of staff through a workload allocation model. I am very happy to endorse these actions; indeed already in the short time that I have been in the School I have identified improving the School culture as a top priority (including tackling issues of bullying and harassment) to improve our working environments and staff wellbeing. I am also keen to introduce consistent, transparent, and equitable processes across the School, which is another recurring theme in the application.

Several of the other proposed actions, such as the formalisation of the induction process and improvements to staff appraisals, were identified by me on arrival as areas requiring attention, and I also intend to build on previous successful initiatives that I developed while at Cranfield University, such as the better use of inclusive language in job descriptions and adverts which led to an increase in the number of women applicants.

Under my leadership, I am happy to confirm that the School will commit fully to implementing the actions that have been developed and I am confident that they will help us on our journey to achieving an Athena SWAN Silver award.

Going forward the SAT will become an Equality and Diversity Committee, which will report to our School Executive, and I very much look forward to working closely with the committee in the coming months.

Yours sincerely,

Professor Rajkumar Roy,
Dean

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, Computer Science and Engineering (MCSE) started our Athena SWAN journey in April 2017.

MCSE is composed of six Departments: Civil Engineering (Civil), Computer Science (CS), Electrical and Electronic Engineering (EEE), Library and Information Science (LIS), Mechanical Engineering and Aeronautics (MEA), and Mathematics (Maths). The three Engineering Departments are run by a single Head of Engineering. As LIS only has 4 members of staff, and no UG programmes, it will be considered as part of CS (its historical home) for the majority of this application.

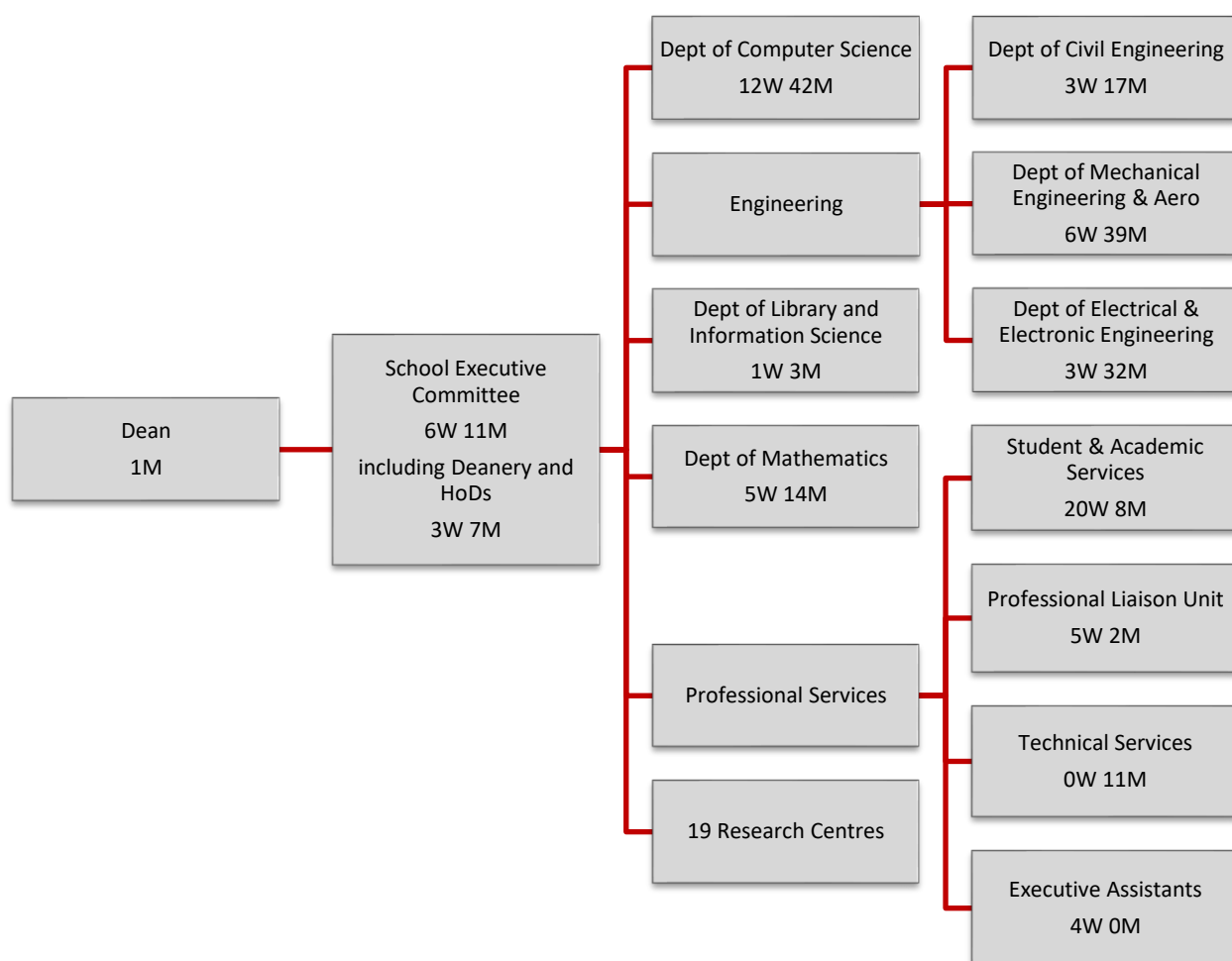
MCSE is situated on a single site in the main University campus, and all teaching is undertaken there with the exception of a limited number of modules on the MSc Aviation Management programmes. These are delivered in Dubai and Frankfurt as 3 day intensive modules, delivered by staff who fly out for short periods but are otherwise based on the main campus.

Departments play a much more limited role in MCSE than in many other universities, not having existed in the School prior to 2012. Professional Services staff all work for the School rather than individual Departments, and much of the administration and management is carried out at the School level. Departments deliver UG, PGT, and PGR programmes, and Heads of Department (HoDs) organise appraisals and workload allocation, but all other aspects are managed by the School, either through School Committees or the School Executive Committee (ExCo).

The academic leadership of MCSE is provided by the Deanery (Dean, Deputy Dean, Associate Deans for Education, Postgraduate Taught, Research and Enterprise, Student Experience (2 women, 4 men)) and the HoDs for CS, Engineering, LIS, and Maths (1 woman, 3 men). The School ExCo includes these members, together with the Head of Academic Services, the Technical Services and Professional Liaison Unit Managers, and the Chief Operating Officer, as well as University representatives of HR, Finance, and Marketing and Recruitment.

There are 19 research centres, and staff may be members of several (or none). Some of these centres span several Departments, and research matters are considered by the School Research Committee and not at Department level. The governance structure of MCSE is shown below (Figure 2.1).

Figure 2.1: Governance structure of MCSE



Throughout this application we will use headcount rather than FTE for staff and student data, and each is based on a snapshot of each year as of 31 July. Benchmarks for staff data are taken from 2016/17 national HESA data for both students and staff. In certain categories we will refer to “not recorded”; this includes both when data is not known and when staff prefer not to declare it. The phrase “academic staff” will always include researchers as well as those on education or education and research contracts.

(i) Staff in the School

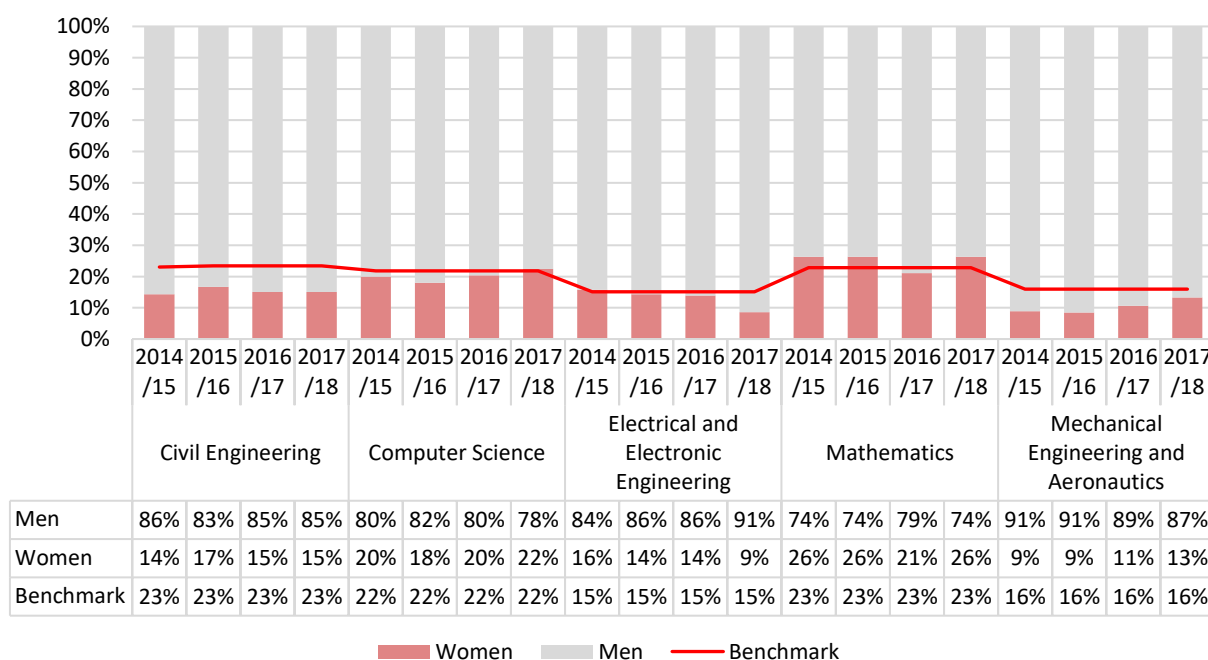
MCSE has 228 staff (2017/18): 178 academic staff (made up of 57 Research, 116 Education and Research, and 5 Education contract types, see 4.2(i)) and 50 Professional Services (PS) staff (Table 2.2). Overall, women comprise 17% of academic staff and 52% of PS staff. Departments are made up only of academic staff; all PS staff are centrally managed by the School.

Table 2.2: Academic and Professional Services Staff (at 31.07.2018)

	Women	Men	Total	%Women
Academic	30	148	178	17%
Civil Engineering (Civil)	■	■	■	■
Computer Science (CS)	13	45	58	22%
Electrical & Electronic Engineering (EEE)	■	■	■	■
Mathematics (Maths)	■	■	■	■
Mechanical Engineering & Aeronautics (MEA)	■	■	■	■
Dean	0	1	1	0%
Professional	26	24	50	52%
Student and Academic Services	20	8	28	71%
Technical Services	0	11	11	0%
Professional Liaison Unit	■	■	■	■
Executive Assistants	■	■	■	■
Total	56	172	228	25%

There is some difference across Departments, with Maths having a higher proportion of women (26%), and EEE and MEA a lower proportion (9-13%) (Table 2.2. and Figure 2.3). While CS and Maths have broadly matched the ECU 2017 subject benchmarks, Civil and MEA are both significantly below their benchmark figures, as is EEE in the most recent year.

Figure 2.3: Departmental Headcounts



[headcount numbers redacted]

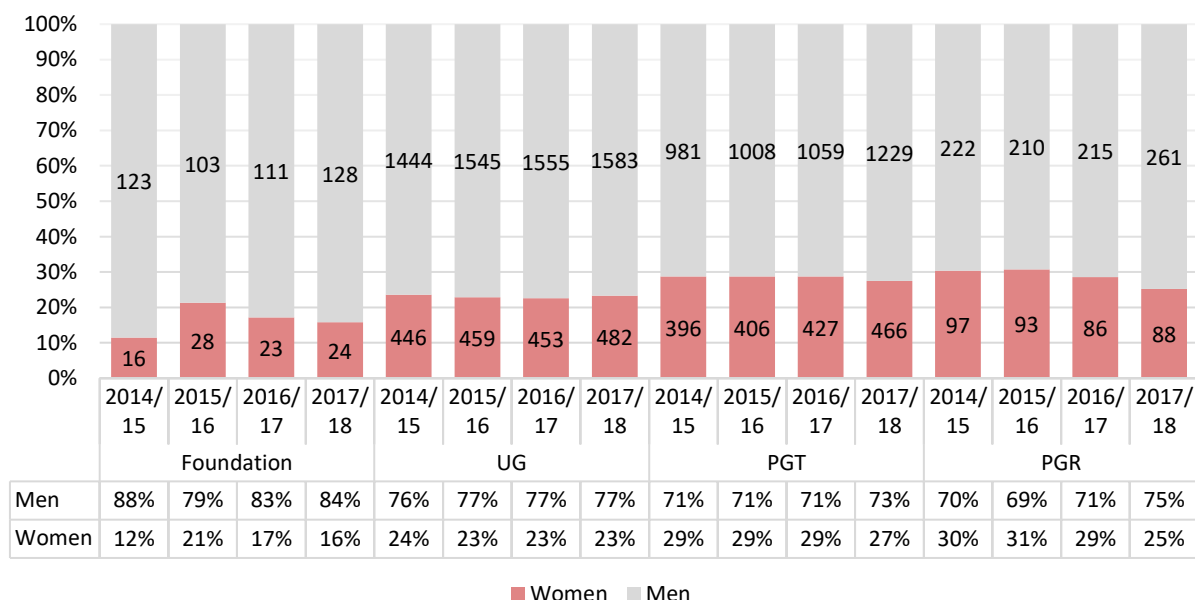
There are 157 visiting lecturers (39 women and 118 men), who are primarily industry professionals who come into the University to contribute to our professional MSc programmes. These staff have

not been included in the majority of our analysis because they only have a very limited interaction with the School; their primary employer is in industry and they typically provide at most one module (30 contact hours) of teaching per year. However, we do consider the distribution of their grades in Section 4.2(ii).

(ii) Students in the School

There are 152 foundation, 2065 UG, 1695 PGT and 349 PGR students (2017/18) in MCSE. The differences across Departments are discussed in Section 4.1. Overall in the School the proportion of women increases at each level, from Foundation (12-21%) to UG (23-24%) to PGT (27-29%) and PGR (25-31%), although there has been a dip from PGT to PGR in the most recent year (Figure 2.4). Benchmark comparisons will be provided in Section 4 at subject level.

Figure 2.4: Student Headcounts



(iii) Pipeline in the School

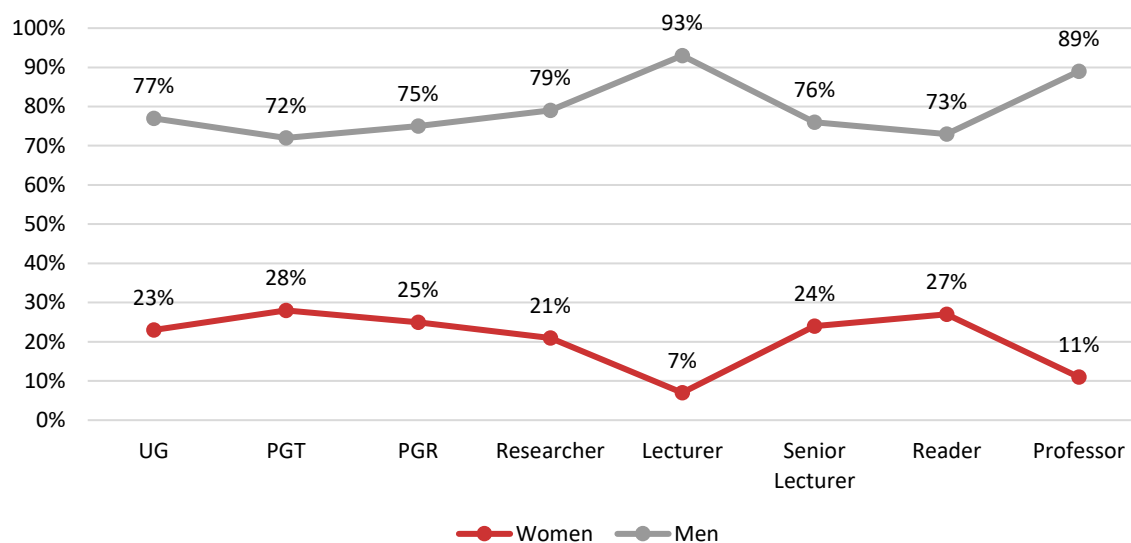
The proportion of women increases from UG to PGT, but then drops at PGR and Researcher, with a significant further drop from Researcher to Lecturer (Figure 2.5). There is an increase for Senior Lecturer and Reader, suggesting that there is a barrier to progression at this stage, before a very low proportion of Professors. Action to address this include:

- Action 1.3: (a) Ensure a good representation of women staff or student ambassadors at open days, offer-holder days, outreach work, etc.; (b) Organise UG outreach events focussed on women in STEM, particularly in Engineering, in secondary schools.
- Action 2.1: (b) Ensure all advertising materials encourage women and underrepresented ethnicities to apply; (c) Ensure use of established and inclusive job boards for vacancies, such as Women in Science and Engineering (WISE) networks; (d) Highlight employee benefits and Include welcoming message which describes the attractive options for women in recruitment/career publicity platforms; (e) Ensure that all job advertisements state that part-time candidates will be considered.

- Action 2.2: Actively promote PDR opportunities internally and externally to women through webpages, international research collaborators, overseas partners, City alumni events, etc.
- Action 4.3: (a) Set up promotion support forums and meet annually to identify actions for career progression; (b) Include discussion of anonymised successful promotion case studies of applications for different grades and genders as part of Annual Promotions Workshop; (c) Match unsuccessful promotion candidates with suitable mentors.

A more detailed analysis of the student pipeline by discipline can be found in Section 4.1(v).

Figure 2.5: The Career Pipeline



Section 2	
Actual word count	802 (includes 180 discipline specific analysis) (This excludes headings, sub-headings, tables, graphs and references to action points.)
Recommended word count	500

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

An AS lead for MCSE was appointed by the Dean in April 2017 to Chair the self-assessment team (SAT), with support from a co-Chair with experience of the University SAT which developed the successful institutional application. The HoDs were asked to identify members of their Departments to form the basis of the SAT, looking for a range of different genders, ethnicities, role types, and grades to be representative of the members of the School. Members were also invited from the School's Professional Services. The SAT was also joined by the University Equality and Diversity Manager to provide advice and support.

In July 2017 there was an initial series of meetings where the composition of the SAT was reviewed, and new members were invited to fill gaps in the representation across the School. A number of members were also invited to provide specialist expertise (such as on HR policies, or communication strategies).

Between July 2017 and the submission of the application membership has remained broadly constant, but with a small number of changes due to staff leaving the University or stepping down from the SAT. At the time of submission the SAT consists of 18 members: 8 women and 10 men. This includes 11 academic staff, 5 PS staff, and 2 PhD students. Further details of the membership can be found in Table 3.1 and Figure 3.2.

Table 3.1: Athena SWAN Self-assessment team

Name	Job Title	SAT Role	Gender	Ethnicity	Additional Information
Dr Sumsun Naher	Senior Lecturer in MEA	Chair of SAT	Woman	BAME	Full-time; dual career household; two young children
Dr Anton Cox	HoD in Maths (Member of School ExCo) Member of ASIG	Co-Chair; Subgroup lead for Picture of the School and member of Action Plan subgroup	Man	White	Full-time
Prof Sanowar Khan	Deputy Dean (Member of School ExCo), in EEE	Subgroup lead for Staff Surveys and Focus Groups	Man	BAME	Full-time
Ms Cat Edera	Head of MCSE Academic Services (Member of School ExCo)	Former subgroup lead for Flexible Working, Organisation and Culture	Woman	White	Former member
Dr Olalla Castro-Alvaredo	Reader in Maths	Member of subgroups on Picture of the School & Flexible Working, Organisation and Culture and Action Plan subgroup	Woman	White	Full-time; dual working couple

Prof Jamshid Nouri	Former HoD MEA	Member of subgroups on Flexible Working, Organisation and Culture & Staff Surveys and Focus Groups	Man	BAME	Full-time; married with children
Dr Bhagya Dasari	PhD student, now Postdoc, MEA	Member of subgroup on Staff Surveys and Focus Groups	Woman	BAME	Initially Full-time student, now Part-time Postdoc; married, taken maternity leave
Dr Matthew Read	Lecturer in MEA	Member of subgroups on Picture of the School & Career Development and Transition	Man	White	Full-time; dual working couple
Dr Maria Krotsiani	Lecturer in CS	Member of subgroup on Flexible Working, Organisation and Culture	Woman	White	Full-time
Prof Sarah Stallebrass	Former HoD Civil	Member of subgroups on Picture of the School & Flexible Working, Organisation and Culture	Woman	White	Full-time
Prof Ashraf Ayoub	Professor in Civil	Subgroup lead on Career Development and Transition	Man	BAME	Full-time
Dr Veselin Rakocevic	Former HoD EEE	Member of subgroup on Picture of the School	Man	White	Full-time; married with children
Mr Simon Norris	MCSE HR Manager (Member of School ExCo)	Member of subgroup on Flexible Working, Organisation and Culture	Man	White	Full-time
Dr Emma Taylor-Steeds	Equality and Diversity Manager, HR Member of ASIG	Equality and Diversity Advisor	Woman	White	Full-time; dual working couple
Mr Peter Aggar	Research Support Services Manager	Subgroup lead for Flexible Working, Organisation and Culture	Man	White	Full-time; dual working couple
Dr Ernesto Priego	Lecturer in CS	Communications Lead	Man	White	Full-time; dual working couple
Mr Richard Basch	Chief Operating Officer (Member of School ExCo)	Member of Action Plan subgroup	Man	White	Full-time
Ms Monika Herberova	EA to the Dean	Former MCSE AS Executive Support	Woman	White	Full-time; former member
Ms Gabrielle To	EA to HoD of CS and AS Project	MCSE AS Executive Support	Woman	White	Full-time; carer for a family member
Ms Rynne Goodman	PhD student, CS	Member of subgroup on Flexible Working, Organisation and Culture	Woman	White	Full-time student

Figure 3.2: Members of the Self-assessment team



Top row from left: Dr Matthew Read, Prof Ashraf Ayoub, Dr Emma Taylor-Steeds, Dr Anton Cox, Prof Sanowar Khan, Dr Olalla Castro-Alvaredo, Mr Richard Basch, Prof Sarah Stallebrass, Dr Ernesto Priego. Bottom row from left: Ms Gabrielle To, Prof Sayma Abdulnaser (in attendance), Prof Jamshid Nouri, Dr Sumsun Naher



Top row from left: Prof Jamshid Nouri, Dr Matthew Reed, Prof Ashraf Ayoub, Dr Anton Cox, Dr Emma Taylor-Steeds, Mr Simon Norris, Mr Peter Aggar. Bottom row from left: Ms Gabrielle To, Dr Bhagya Dasari, Dr Maria Krotsiani, Dr Sumsun Naher

(ii) an account of the self-assessment process

As the vast majority of processes relating to staff are organised across the School, with committees, promotion panels, and policies all spanning the various Departments, it was agreed that the submission should cover the whole School rather than having separate submissions for each Department. It was recognised that care would be needed to ensure that differences between Departments were suitably reflected in the analysis.

The SAT reports to the School ExCo (with which it shares four members) and also to the University Athena SWAN Implementation Group (ASIG), of which the Chair and deputy Chair are both members. This in turn reports to the University Equality Committee.

The SAT established 4 subgroups to focus on: a picture of the School; career development and transition; flexible working, organisation and culture; staff surveys and focus groups. These subgroups began work in November 2017, and developed their respective sections over the next 12 months. Later a fifth subgroup was formed to integrate the work of the others into an Action Plan.

It was agreed to run a School AS Survey via an external online platform, based on a standard template developed across the University but modified with additional School-specific questions. Responses were collected in April-May 2018, with 49% of staff taking part. A more detailed breakdown is given in Table 3.3. (The apparent inconsistency between total numbers and numbers of men and women is due to a number of returns which preferred not to say.)

Table 3.3: AS Survey response rates

	Number of responses	Response rate
All staff	112	49%
Women	36	64%
Men	64	37%
Research staff	15	26%
Professional Services staff	12	24%
Computer Science	39	67%
Engineering	50	49%
Mathematics	11	58%

Following this a series of Focus Groups were organised in September 2018, with an external facilitator. There were several invitations to attend both during the survey and afterwards, and 8 members of staff (4 women and 4 men) took part.

In February 2018 the SAT started to develop a communication strategy; this resulted in the design of a School AS webpage and blog, together with a series of events for students, staff, and the wider public (see Sections 5.6(i) and 5.6(vii)). Awareness of AS initiatives was raised through discussions at all-Staff meetings, posters, webpages, and emails.

From June 2018 the SAT started to devise an initial action plan based on the evidence collected up to that point, using a pair of workshops for SAT members in June and August to collect initial ideas for

discussion. The self-assessment document and action plan were then refined in parallel leading to an initial draft of the final submission in January 2019. The draft was also reviewed by our critical friend, Rob Bell, Athena SWAN Coordinator, Imperial College London, and further feedback collected from external members of the University Gender Equality Advisory Group. After further revisions this was then disseminated for discussion (and ultimately approval) at the School ExCo, the University ASIG, and the University ExCo.

During this process the SAT met monthly, with subgroups meeting regularly in parallel to this, and weekly for the final month. The SAT had a budget of £9500 in addition to the support provided by the ASIG, and from July 2018 a part-time executive assistant was appointed to support the SAT.

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

The SAT will be replaced by a School Equality and Diversity Committee (EDC). This will monitor the implementation of the Action Plan and future Athena SWAN submissions, but will also consider equality and diversity more widely. This will allow for better linkage of initiatives coming from the ASIG and from the University Equality Committee.

Membership will be reviewed annually to make sure that it is representative of the wider School, and will be expanded to include UG and PGT representation, as well as Postdoctoral and PT staff. We will look to bring in several new members each year, to provide a fresh perspective and enable succession planning. For staff, membership will be considered as part of the School's workload allocation process, which was not consistently done prior to this (see Section 5.6(v)).

It is intended that the EDC will meet 5-6 times per year to monitor progress, and revise timescales and actions where necessary. The EDC will also be responsible for the School's AS events and lectures. Progress will be measured in part by a future School AS Survey which will also be managed by the EDC.

The EDC will continue to report to the School ExCo and the University ASIG, as well as the University Equality Committee. It will also be responsible for promoting equality and diversity matters in the School and keeping staff and students informed about progress towards implementing the Action Plan.

- **Action 9.9: (a) Replace SAT by Equality and Diversity Committee which will monitor implementation of the Action plan, develop future applications, and consider wider equality and diversity issues; (b) Widen representation by including UG and PGT students and Postdoctoral and PT staff on the new Equality and Diversity Committee.**

Section 3	
Actual word count	964 (This excludes headings, sub-headings, tables, graphs and references to action points.)
Recommended word count	1000

4. A PICTURE OF THE DEPARTMENT

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

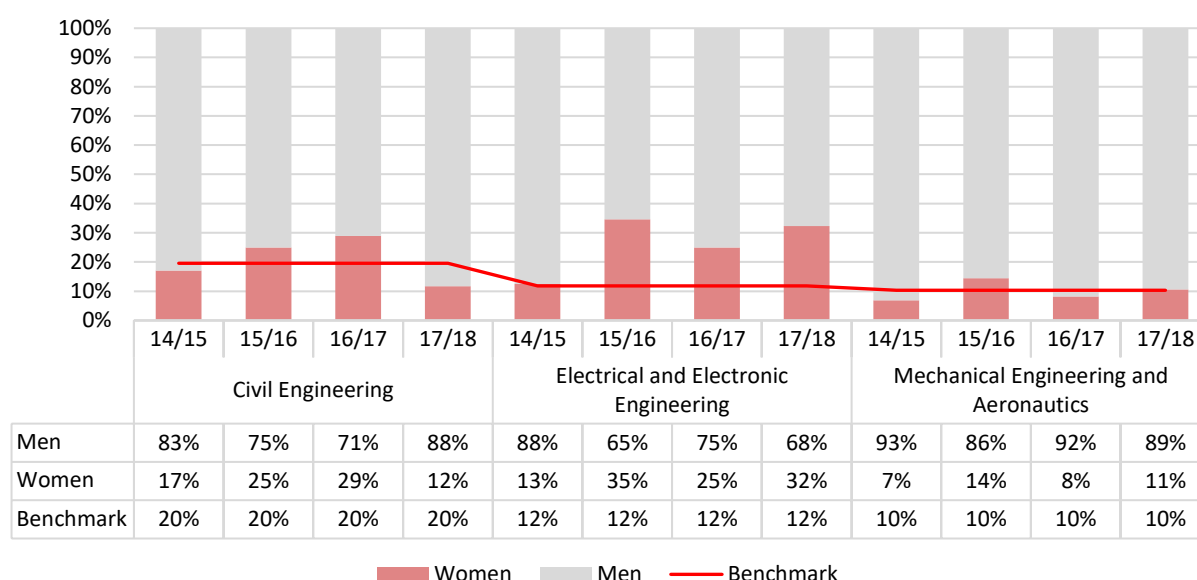
4.1. Student data

All student data is benchmarked against HESA data for 2016/17.

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

The only Foundation courses in MCSE are offered by Engineering, and taught externally by City and Islington College and Westminster Kingsway College. Students who pass the foundation year may automatically enter the first year of the corresponding degree programme. There are three pathways (Figure 4.1); Civil and MEA are in line with the benchmark, while EEE significantly exceed their subject benchmark.

Figure 4.1: Foundation students



[student numbers redacted]

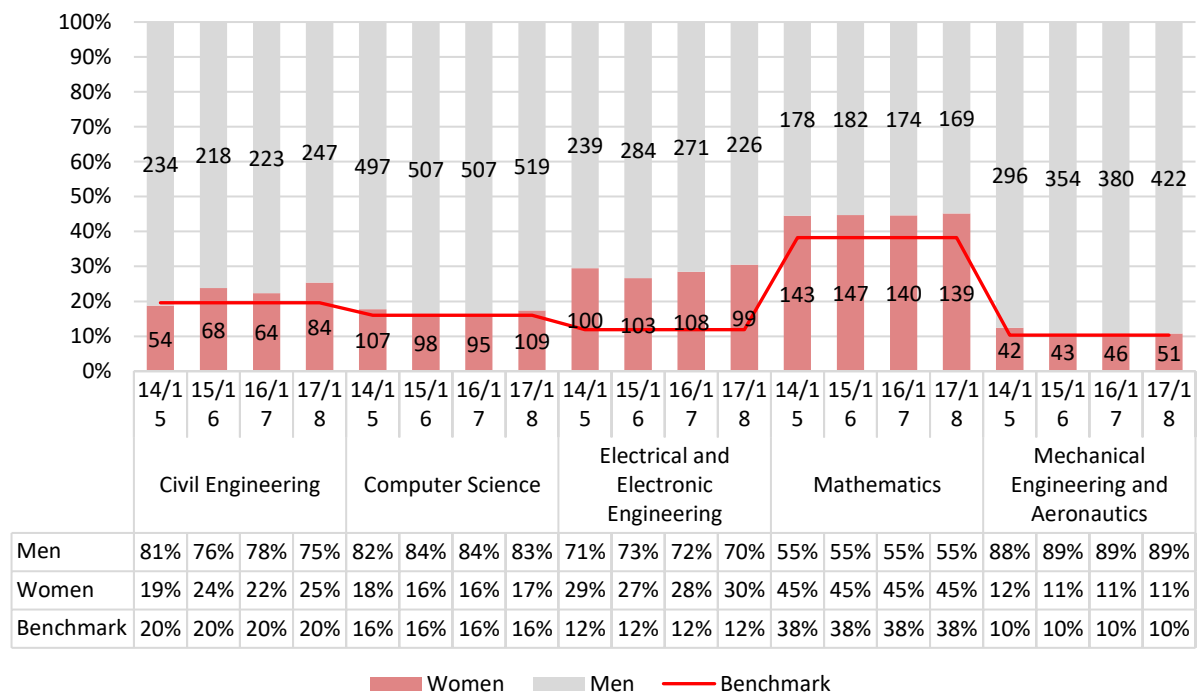
(ii) Numbers of undergraduate students by gender

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

The proportion of women ranges from 11% in MEA to 45% in Maths. Both EEE and Maths exceed their subject benchmarks, while the remaining disciplines are in line with them (Figure 4.2). For EEE this is due to their Biomedical Engineering route, which is very successful at attracting women (55 women, 43 men in the total cohort in 2017/18). Maths has had a very strong profile of women supporting the admissions process, both as admissions tutor and also from staff and students involved in Open Days and outreach work.

- Action 1.3: (c) Ensure recruitment material highlights our current proportion of women students in each discipline.

Figure 4.2: UG students



All UG students are full-time, except in CS where there is a Professional Pathways route where students must work while studying, with [REDCATED, 10 or less] women and 27 men enrolled.

In all programmes there is a broadly stable proportion of women by applications, offers, and acceptances, but with a slight increase in the proportion receiving offers, and a slight decrease from this to the proportion accepting places. In almost all programmes the success rate of women in gaining an offer or accepting a place is usually at least as good as for men at the same stage (Tables 4.3-7: success rates indicate the percentage of applicants who get offers, respectively offer holders who accept a place. These are coloured green (respectively red) if women are proportionately more (respectively less) successful than men at that stage.) The exception is Maths – but the small percentage differences are based on a small number of students so do not appear to be statistically significant.

Although the proportions of women UG students are in line with national benchmarks by subject area, they are lower than the corresponding proportions of PGT and PGR students. Thus it would appear that there is (nationally) a particular problem in attracting women students at the transition from School to University, an impression that is supported by an analysis of performance during the UG programmes (see discussion before Figure 4.8).

- **Action 1.3: (a) Ensure proportionate representation of women staff or student ambassadors at open days, offer-holder days, outreach work etc. to increase visibility of women students and staff to prospective students; (b) Organise UG outreach events focussed on women in STEM, particularly in Engineering, in secondary schools.**

Table 4.3: Civil UG Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	100	402	20%		
	Offers	20	86	19%	20%	21%
	Acceptance	13	50	21%	65%	58%
2015/16	Applications	110	386	22%		
	Offers	35	81	30%	32%	21%
	Acceptance	23	53	30%	66%	65%
2016/17	Applications	111	400	22%		
	Offers	23	91	20%	21%	23%
	Acceptance	13	65	17%	57%	71%
2017/18	Applications	121	464	21%		
	Offers	83	300	22%	69%	65%
	Acceptance	19	86	18%	23%	29%

Table 4.4: CS UG Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	203	1152	15%		
	Offers	59	279	17%	29%	24%
	Acceptance	38	176	18%	64%	63%
2015/16	Applications	248	1480	14%		
	Offers	59	332	15%	24%	22%
	Acceptance	37	195	16%	63%	59%
2016/17	Applications	287	1506	16%		
	Offers	60	337	15%	21%	22%
	Acceptance	31	188	14%	52%	56%
2017/18	Applications	261	1486	15%		
	Offers	173	837	17%	66%	56%
	Acceptance	44	205	18%	25%	24%

Table 4.5: EEE UG Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	149	496	23%		
	Offers	52	120	30%	35%	24%
	Acceptance	28	82	25%	54%	68%
2015/16	Applications	187	544	26%		
	Offers	53	150	26%	28%	28%
	Acceptance	31	93	25%	58%	62%
2016/17	Applications	154	405	28%		
	Offers	45	130	26%	29%	32%
	Acceptance	31	81	28%	69%	62%
2017/18	Applications	117	336	26%		
	Offers	96	204	32%	82%	61%
	Acceptance	38	60	39%	40%	29%

Table 4.6: Maths UG Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	239	291	45%		
	Offers	88	84	51%	37%	29%
	Acceptance	53	54	50%	60%	64%
2015/16	Applications	268	335	44%		
	Offers	86	109	44%	32%	33%
	Acceptance	45	63	42%	52%	58%
2016/17	Applications	240	307	44%		
	Offers	96	106	48%	40%	35%
	Acceptance	48	58	45%	50%	55%
2017/18	Applications	252	308	45%		
	Offers	215	273	44%	85%	89%
	Acceptance	57	79	42%	27%	29%

Table 4.7: MEA UG Applications

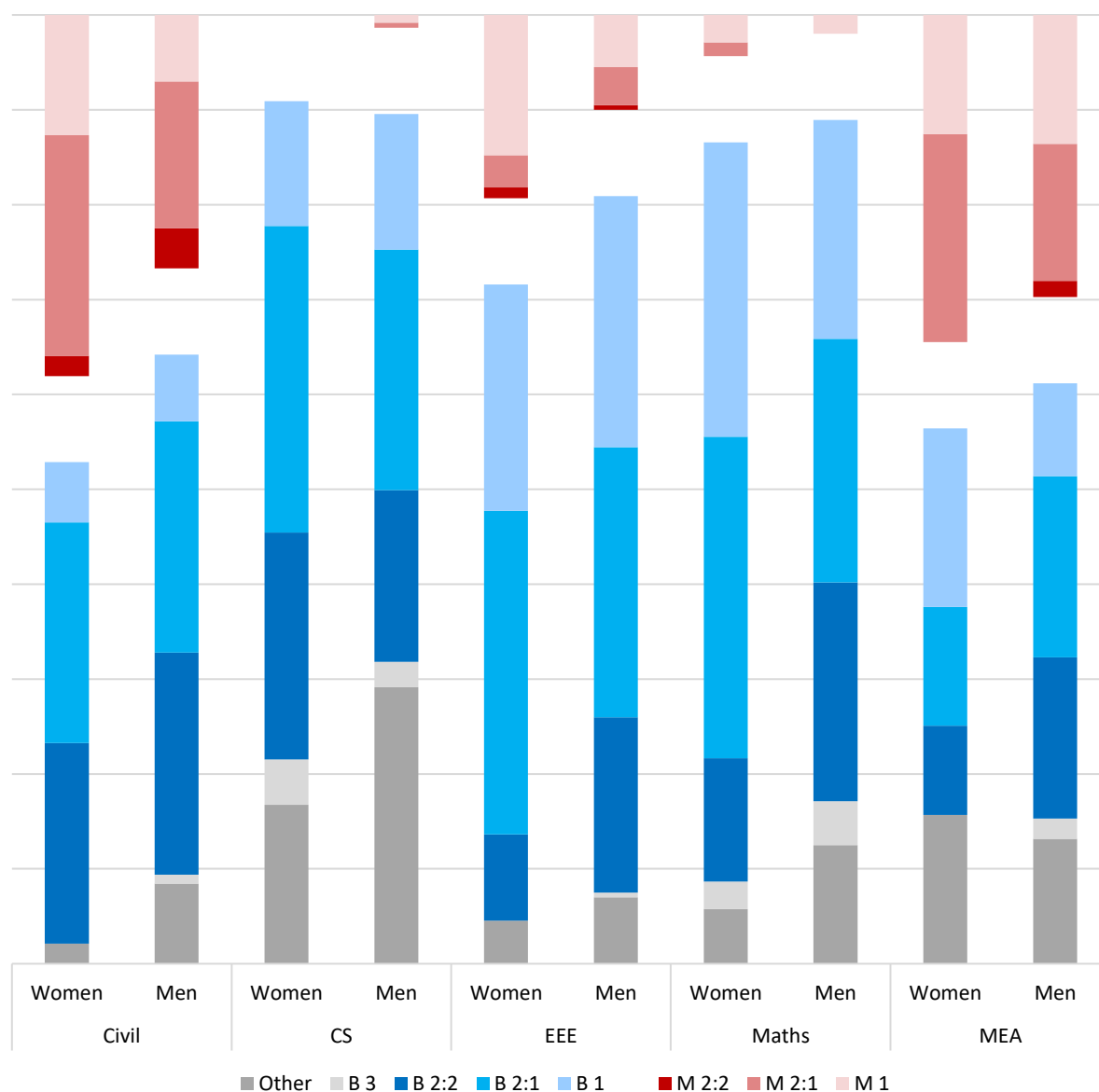
Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	92	868	10%		
	Offers	23	168	12%	25%	19%
	Acceptance	13	94	12%	57%	56%
2015/16	Applications	102	947	10%		
	Offers	24	187	11%	24%	20%
	Acceptance	13	98	12%	54%	52%
2016/17	Applications	88	756	10%		
	Offers	20	176	10%	23%	23%
	Acceptance	[10 or less]	97	[redacted]	[50% or less]	55%
2017/18	Applications	121	1058	10%		
	Offers	91	745	11%	75%	70%
	Acceptance	22	164	12%	24%	22%

Degree classifications involve both MEng/MSci/MMath and BEng/BSc. To avoid small numbers in each classification these have been considered over the period 2014-18 in total (Figure 4.8 and Table 4.9). Shades of red denote M-level degrees (M), and shades of blue the BEng/BSc degrees (B), which are separated by a gap for clarity. Other denotes Certificates, Diplomas, or Ordinary degrees.

It is noticeable that women in Civil, EEE, and Maths gain significantly more MEng/MMath firsts than men. In all subjects except MEA women gain significantly fewer other classifications than men. In all Engineering subjects women are more likely than men to take the MEng route. Overall across all subjects women get a greater proportion of 2:1s and firsts.

The above observations suggest that there are problems in attracting women UG students who are capable but not excellent at their discipline (or who thus perceive themselves). This is consistent with the trend observed in the student pipeline, where proportions of women rise at PGT and PGR, as we would expect these degrees to draw from students who were stronger performers in their UG programmes. Actions around recruitment will only maintain the national status quo unless we take actions to widen the pool of applicants (as in Action 1.3 above).

Figure 4.8: UG Degree Classifications 2014-18



[headcount redacted]

Table 4.9: UG Degree Classifications 2014-18

Department		Other	B 3	B 2:2	B 2:1	B 1	M 2:2	M 2:1	M 1
Civil	Women	2%	0%	23%	26%	7%	2%	26%	14%
	Men	9%	1%	26%	27%	8%	5%	17%	8%
CS	Women	18%	5%	26%	36%	14%	0%	0%	0%
	Men	32%	3%	20%	28%	16%	0%	1%	1%
EEE	Women	5%	0%	10%	38%	26%	1%	4%	16%
	Men	8%	1%	20%	31%	29%	1%	4%	6%
Maths	Women	6%	3%	14%	37%	34%	0%	2%	3%
	Men	14%	5%	25%	28%	25%	0%	0%	2%
MEA	Women	17%	0%	10%	14%	21%	0%	24%	14%
	Men	14%	2%	19%	21%	11%	2%	16%	15%

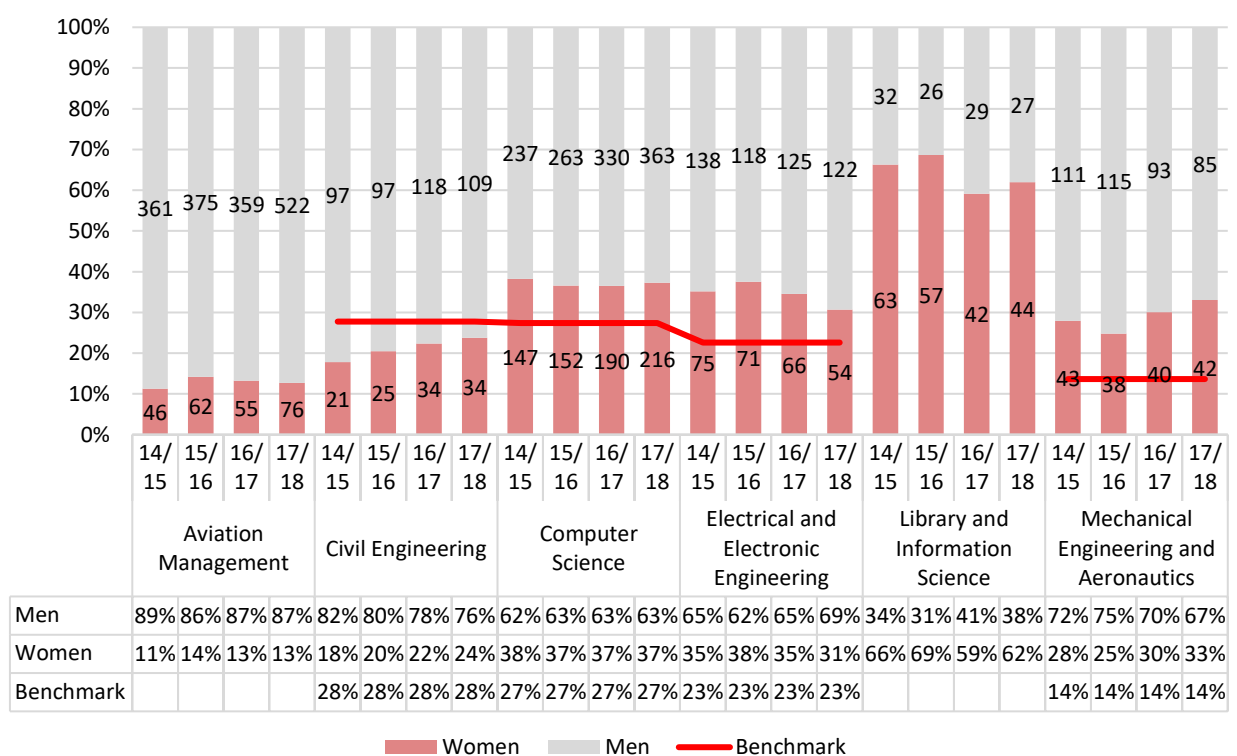
(iii) Numbers of men and women on postgraduate taught degrees

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

Two MSc programmes have a distinctive nature and so have been analysed separately: Library and Information Science (LIS), and Aviation Management. For these two specialised programmes no HESA benchmarking data was available (but we discuss some indirect benchmarks below); for the remaining disciplines, HESA benchmarks have been provided. Civil is below the subject benchmark, but CS, EEE, and MEA significantly exceed the benchmark (Figure 4.10). Maths had a very small MSc which was discontinued several years ago, so will not be considered in this section.

- **Action 1.5: (a) Review Civil Engineering publicity materials annually to make sure they contain images of current women students, and testimonials and career stories of women Civil Engineering alumni; (b) Involve more women Civil Engineering staff or students in open day activities; (c) Use existing WISE (Women in Science and Engineering) networks to publicise City Civil Engineering.**

Figure 4.10: PGT Students



Aviation Management is a very large part time programme aimed at mid-career aviation professionals, made up predominately of men (reflecting the career itself). Only 5.2% of pilots (*survey by the International Society of Women Airline Pilots, 2018*) and 3.9% of non-pilots (*Stephen Ison, in Journal of Aviation/Aerospace Education and Research, 2010*) are women, and so this programme exceeds the professional norm, despite the apparent low numbers of women. The programme is delivered in London, Dubai, and Frankfurt: the choice of these three major transport hubs allows students to more easily study part time near their place of work.

Although LIS has no direct benchmark, we can compare with the associated profession: 78% of workers in the discipline were women (*survey by the Chartered Institute of Library and Information Professionals, 2015*). However, over 55% of the workforce is over 45, so we are unable to determine whether the lower proportions on this programme are representative of more recent trends in the profession.

On CS and EEE the proportion of men who are FT is less than the proportion of women, whereas the opposite is true for LIS (Figures 4.11-12). All Aviation Management students are PT.

Figure 4.11: PGT FT/PT Women

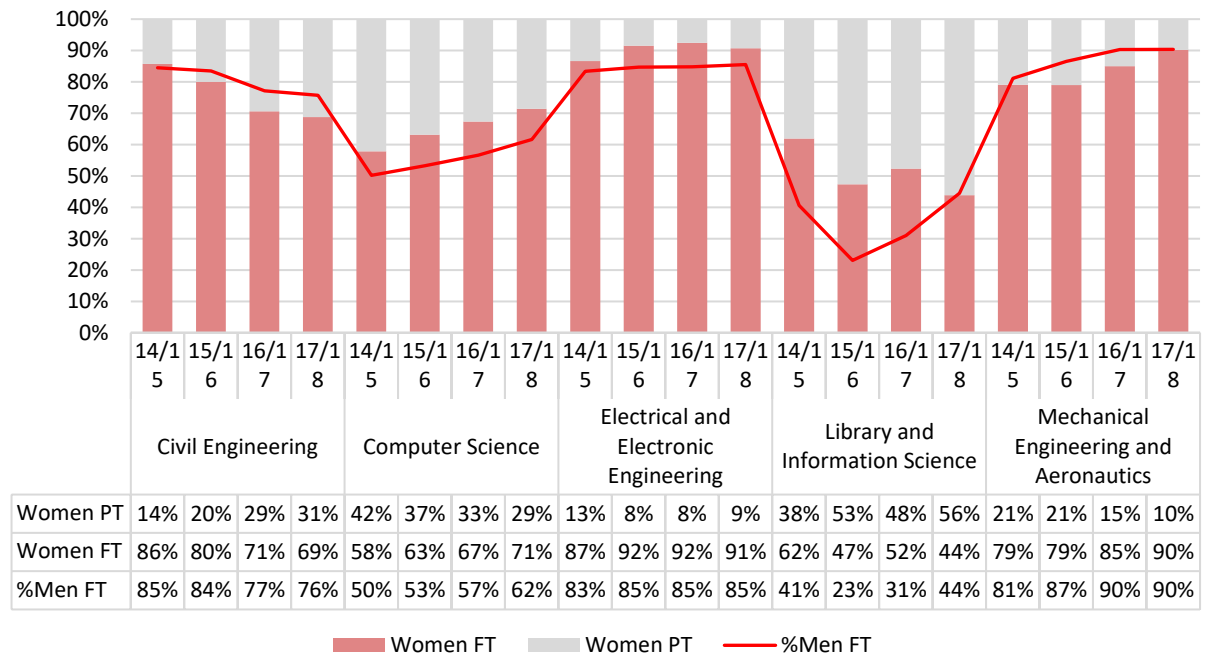
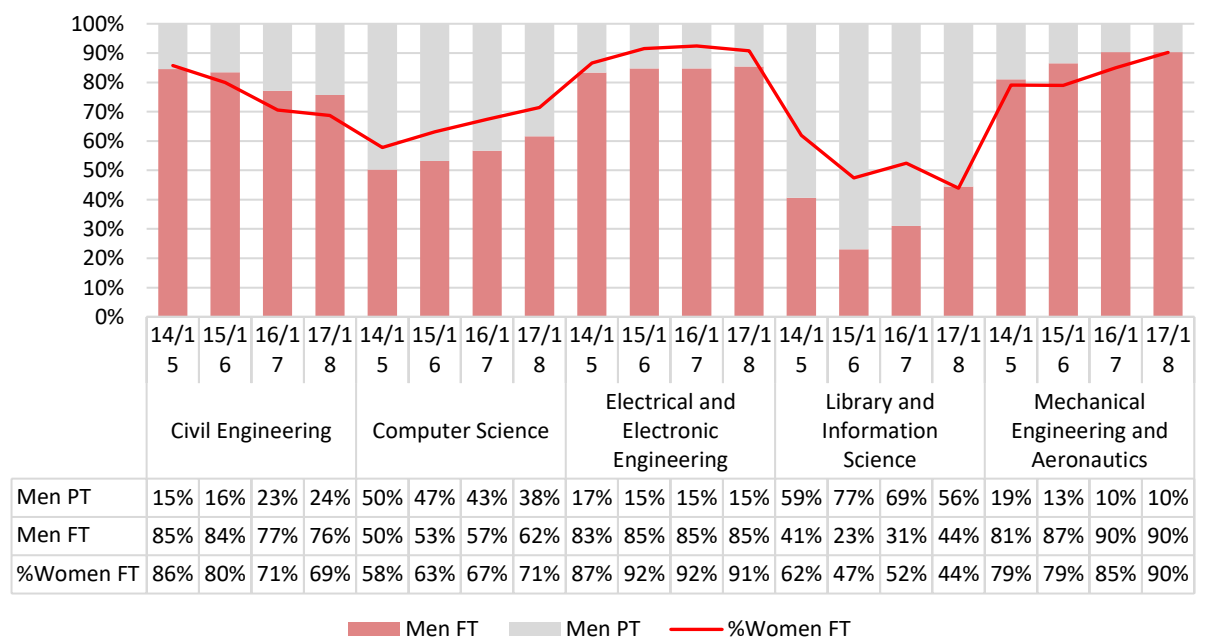


Figure 4.12: PGT FT/PT Men



[headcounts redacted]

In all programmes except Aviation Management, there is a broadly stable proportion of women by applications, offers, and acceptances, but with a slight increase in the proportion receiving offers, and generally a further increase in the proportion accepting places (Tables 4.13-18: data presented as for Tables 4.3-4.7 above). In recent years women have had a higher success rate than men in all programmes apart from EEE and LIS.

Table 4.13: Aviation Management PGT Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	[less than 10]	[redacted]	12%		
	Offers	[less than 10]	[redacted]	11%	89%	100%
	Acceptance	[less than 10]	[redacted]	10%	88%	90%
2015/16	Applications	13	68	16%		
	Offers	12	65	16%	92%	96%
	Acceptance	11	54	17%	92%	83%
2016/17	Applications	10	90	10%		
	Offers	10	86	10%	100%	96%
	Acceptance	10	71	12%	100%	83%
2017/18	Applications	11	80	12%		
	Offers	10	78	11%	91%	98%
	Acceptance	10	65	13%	100%	83%

Table 4.14: Civil PGT Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	64	269	19%		
	Offers	19	82	19%	30%	30%
	Acceptance	[less than 10]	[redacted]	18%	47%	51%
2015/16	Applications	59	248	19%		
	Offers	17	95	15%	29%	38%
	Acceptance	15	48	24%	88%	51%
2016/17	Applications	76	321	19%		
	Offers	32	134	19%	42%	42%
	Acceptance	21	68	24%	66%	51%
2017/18	Applications	65	286	19%		
	Offers	56	227	20%	86%	79%
	Acceptance	23	93	20%	41%	41%

Table 4.15: CS PGT Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	335	586	36%		
	Offers	128	189	40%	38%	32%
	Acceptance	77	115	40%	60%	61%
2015/16	Applications	300	641	32%		
	Offers	136	266	34%	45%	41%
	Acceptance	70	121	37%	51%	45%
2016/17	Applications	398	772	34%		
	Offers	200	355	36%	50%	46%
	Acceptance	111	186	37%	56%	52%
2017/18	Applications	429	851	34%		
	Offers	297	536	36%	69%	63%
	Acceptance	151	259	37%	51%	48%

Table 4.16: EEE PGT Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	174	427	29%		
	Offers	72	143	33%	41%	33%
	Acceptance	37	62	37%	51%	43%
2015/16	Applications	163	413	28%		
	Offers	78	152	34%	48%	37%
	Acceptance	33	53	38%	42%	35%
2016/17	Applications	140	338	29%		
	Offers	57	117	33%	41%	35%
	Acceptance	29	66	31%	51%	56%
2017/18	Applications	218	336	39%		
	Offers	123	216	36%	56%	64%
	Acceptance	55	107	34%	45%	50%

Table 4.17: LIS PGT Applications

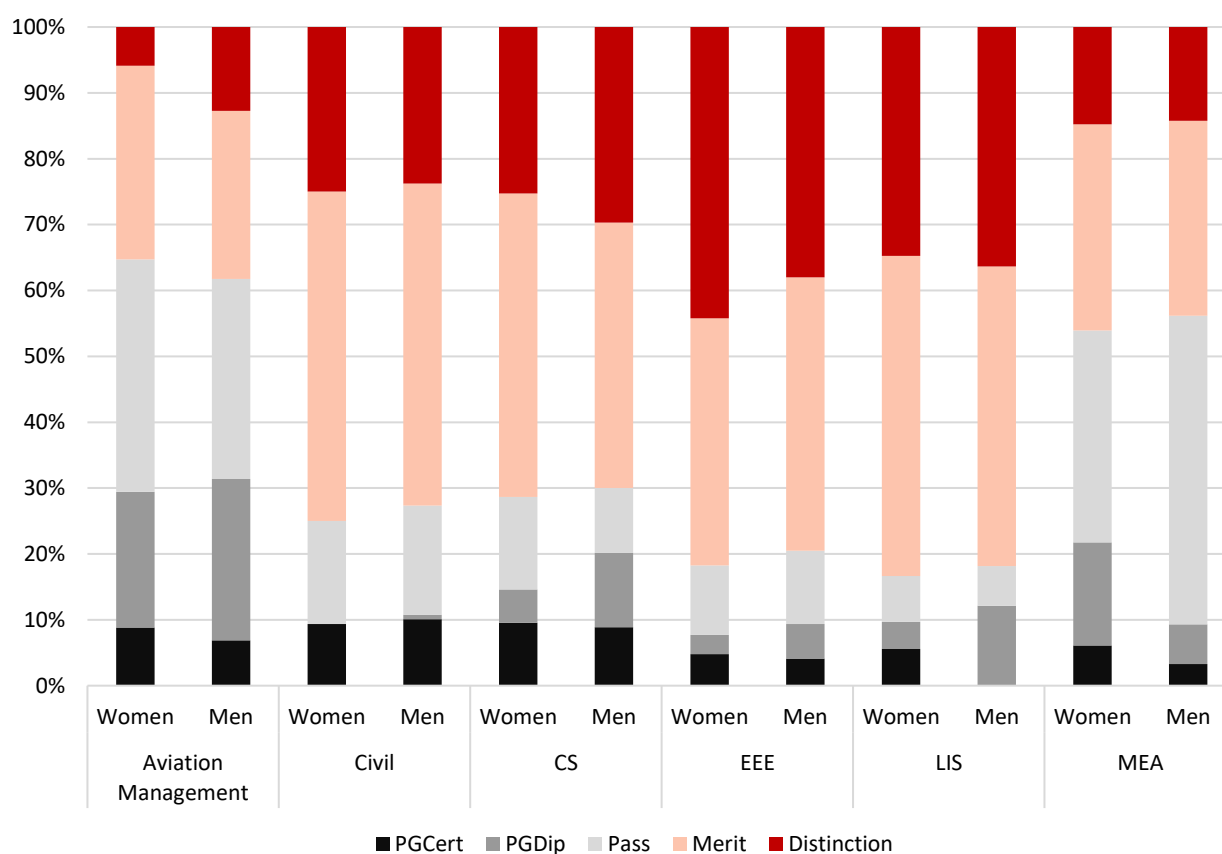
Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	73	44	62%		
	Offers	51	29	64%	70%	66%
	Acceptance	30	16	65%	59%	55%
2015/16	Applications	58	37	61%		
	Offers	43	17	72%	74%	46%
	Acceptance	18	10	64%	42%	59%
2016/17	Applications	41	30	58%		
	Offers	27	17	61%	66%	57%
	Acceptance	18	13	58%	67%	76%
2017/18	Applications	60	39	61%		
	Offers	55	34	62%	92%	87%
	Acceptance	30	21	59%	55%	62%

Table 4.18: MEA PGT Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	81	306	21%		
	Offers	32	132	20%	40%	43%
	Acceptance	19	57	25%	59%	43%
2015/16	Applications	68	267	20%		
	Offers	36	115	24%	53%	43%
	Acceptance	15	55	21%	42%	48%
2016/17	Applications	66	218	23%		
	Offers	31	81	28%	47%	37%
	Acceptance	19	40	32%	61%	49%
2017/18	Applications	72	238	23%		
	Offers	54	177	23%	75%	74%
	Acceptance	32	80	29%	59%	45%

As with UG, we consider the total awards over the period 2014-18 (Figure 4.19 and Table 4.20). In all cases except for MEA, proportionately fewer women fail to get an MSc compared with men. However, unlike UG, it is no longer the case that women get proportionately more of the top grade than men (except in Civil and EEE).

Figure 4.19: PGT degree classifications 2014-18



[quantity table redacted]

Table 4.20: PGT Degree Classifications 2014-18

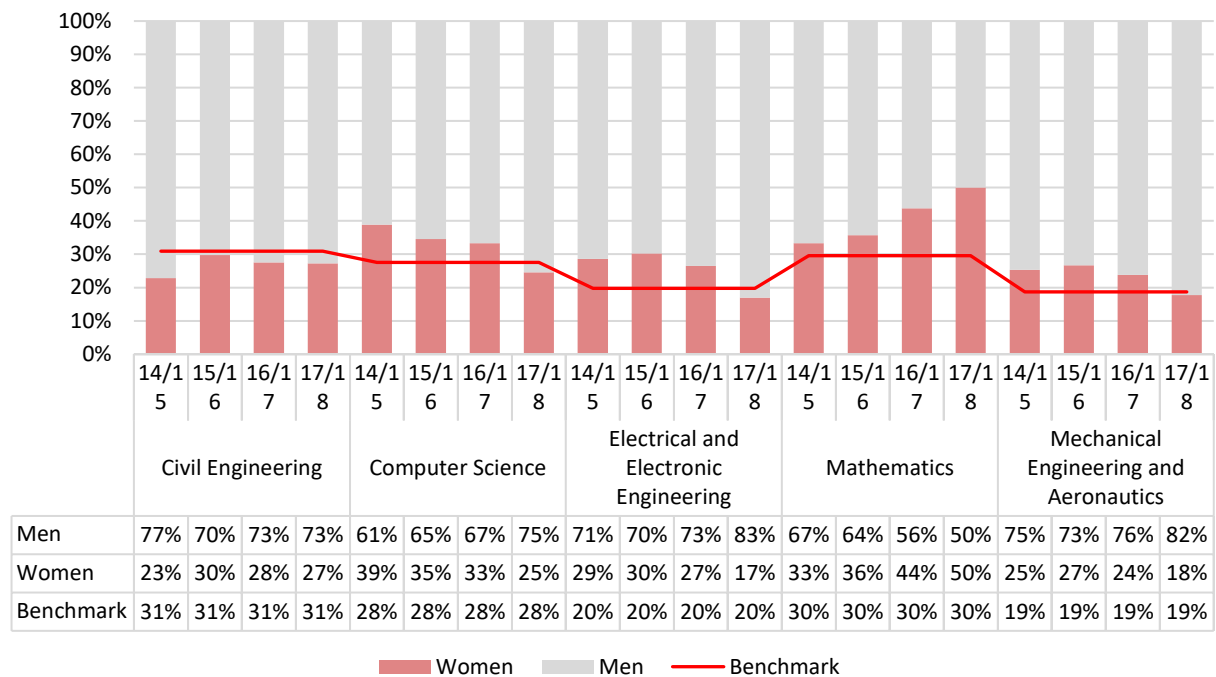
Programmes		PGCert	PGDip	Pass	Merit	Distinction
Aviation Management	Women	9%	21%	35%	29%	6%
	Men	7%	25%	30%	25%	13%
Civil	Women	9%	0%	16%	50%	25%
	Men	10%	1%	17%	49%	24%
CS	Women	10%	5%	14%	46%	25%
	Men	9%	11%	10%	40%	30%
EEE	Women	5%	3%	11%	38%	44%
	Men	4%	5%	11%	42%	38%
LIS	Women	6%	4%	7%	49%	35%
	Men	0%	12%	6%	45%	36%
MEA	Women	6%	16%	32%	31%	15%
	Men	3%	6%	47%	30%	14%

(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.

Maths and CS tend to have a greater proportion of women PGR students, while the Engineering disciplines are broadly similar to each other (Figure 4.21), with all disciplines except Civil exceeding their HESA benchmarks.

Figure 4.21: PGR Students



Civil and CS have a lower proportion of FT men than women, while the remaining areas are broadly similar across the two genders (Figures 4.22-3).

[headcount redacted]

Figure 4.22: PGR FT/PT Women

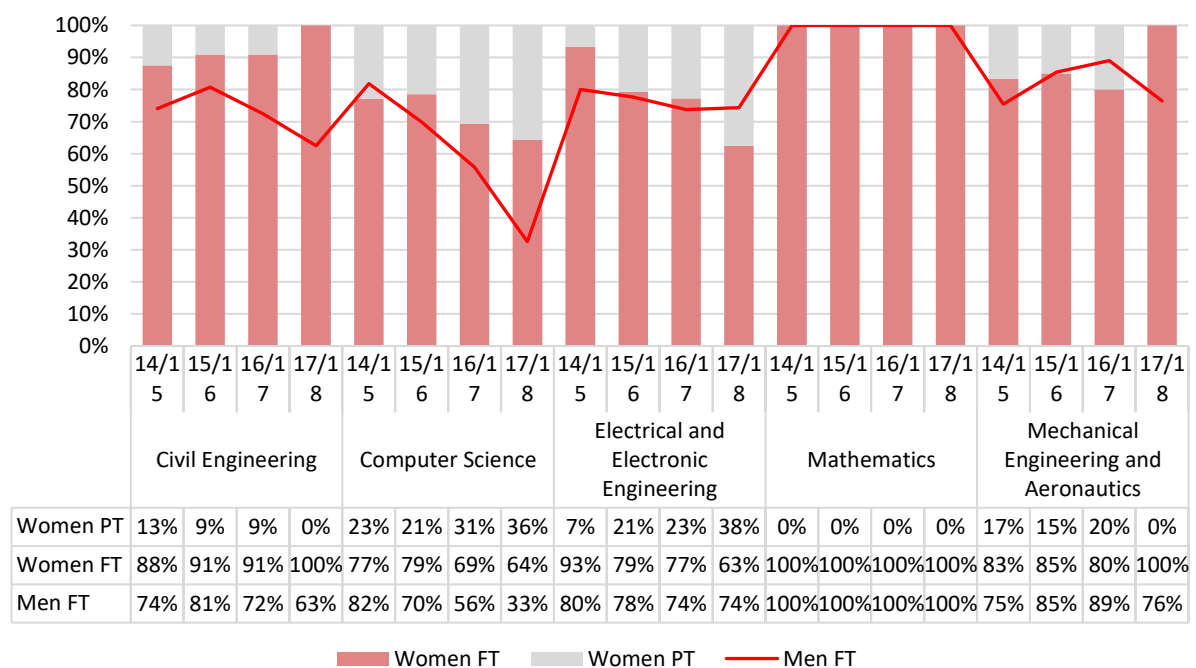
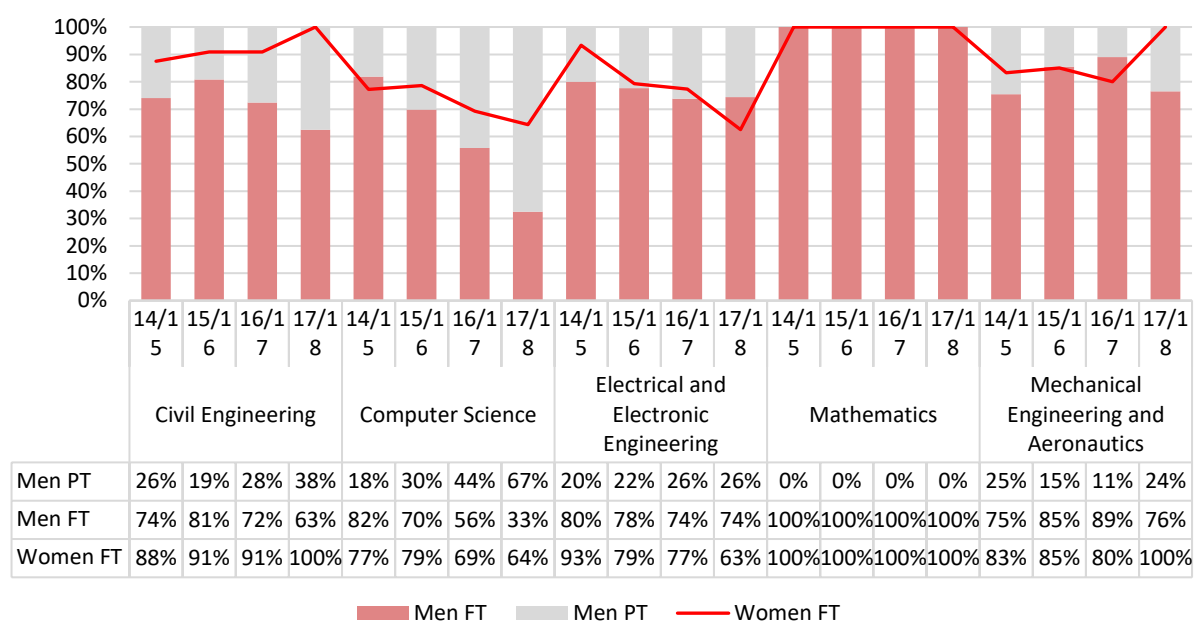


Figure 4.23: PGR FT/PT Men



The data for offers is not very informative, as most students go through an informal stage of approaching a supervisor before making a formal application, and much of the filtering of applicants occurs at this stage and is unrecorded (Tables 4.24-28).

[headcounts redacted]

Table 4.24: Civil PGR Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	[redacted]	[redacted]	10%		
	Offers	[redacted]	[redacted]	13%	100%	78%
	Acceptance	[redacted]	[redacted]	13%	100%	100%
2015/16	Applications	[redacted]	[redacted]	36%		
	Offers	[redacted]	[redacted]	80%	80%	11%
	Acceptance	[redacted]	[redacted]	80%	100%	100%
2016/17	Applications	[redacted]	[redacted]	10%		
	Offers	[redacted]	[redacted]	11%	100%	89%
	Acceptance	[redacted]	[redacted]	11%	100%	100%
2017/18	Applications	[redacted]	[redacted]	0%		
	Offers	[redacted]	[redacted]	0%		50%
	Acceptance	[redacted]	[redacted]	0%		100%

Table 4.25: CS PGR Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	[redacted]	[redacted]	67%		
	Offers	[redacted]	[redacted]	64%	88%	100%
	Acceptance	[redacted]	[redacted]	64%	100%	100%
2015/16	Applications	[redacted]	[redacted]	21%		
	Offers	[redacted]	[redacted]	27%	67%	50%
	Acceptance	[redacted]	[redacted]	27%	100%	100%
2016/17	Applications	[redacted]	[redacted]	29%		
	Offers	[redacted]	[redacted]	21%	60%	92%
	Acceptance	[redacted]	[redacted]	21%	100%	100%
2017/18	Applications	23	31	43%		
	Offers	[redacted]	[redacted]	40%	35%	39%
	Acceptance	[redacted]	[redacted]	44%	88%	75%

Table 4.26: EEE PGR Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	[redacted]	[redacted]	26%		
	Offers	[redacted]	[redacted]	29%	100%	88%
	Acceptance	[redacted]	[redacted]	26%	83%	93%
2015/16	Applications	[redacted]	[redacted]	22%		
	Offers	[redacted]	[redacted]	25%	50%	43%
	Acceptance	[redacted]	[redacted]	25%	100%	100%
2016/17	Applications	[redacted]	[redacted]	42%		
	Offers	[redacted]	[redacted]	22%	40%	100%
	Acceptance	[redacted]	[redacted]	22%	100%	100%
2017/18	Applications	[redacted]	[redacted]	31%		
	Offers	[redacted]	[redacted]	38%	60%	45%
	Acceptance	[redacted]	[redacted]	25%	67%	120%

Table 4.27: Maths PGR Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	[redacted]	[redacted]	25%		
	Offers	[redacted]	[redacted]	33%	100%	67%
	Acceptance	[redacted]	[redacted]	33%	100%	100%
2015/16	Applications	[redacted]	[redacted]	33%		
	Offers	[redacted]	[redacted]	50%	50%	25%
	Acceptance	[redacted]	[redacted]	50%	100%	100%
2016/17	Applications	[redacted]	[redacted]	33%		
	Offers	[redacted]	[redacted]	33%	100%	100%
	Acceptance	[redacted]	[redacted]	40%	100%	75%
2017/18	Applications	[redacted]	[redacted]	33%		
	Offers	[redacted]	[redacted]	43%	100%	67%
	Acceptance	[redacted]	[redacted]	43%	100%	100%

Table 4.28: MEA PGR Applications

Year	Stage	Women	Men	%Women	Success rate (Women)	Success rate (Men)
2014/15	Applications	[redacted]	[redacted]	21%		
	Offers	[redacted]	[redacted]	25%	100%	82%
	Acceptance	[redacted]	[redacted]	27%	100%	89%
2015/16	Applications	[redacted]	[redacted]	15%		
	Offers	[redacted]	[redacted]	21%	100%	65%
	Acceptance	[redacted]	[redacted]	21%	100%	100%
2016/17	Applications	[redacted]	[redacted]	15%		
	Offers	[redacted]	[redacted]	20%	100%	70%
	Acceptance	[redacted]	[redacted]	20%	100%	100%
2017/18	Applications	[redacted]	[redacted]	25%		
	Offers	[redacted]	[redacted]	14%	33%	67%
	Acceptance	[redacted]	[redacted]	17%	100%	83%

Awards are almost entirely PhDs, but the small number of MPhils are proportionately more likely to be men (Table 4.29).

Table 4.29: PGR Awards 2014-18

Department		MPhil	PhD
Civil	Women	0	[redacted]
	Men	[redacted]	[redacted]
CS	Women	[redacted]	11
	Men	[redacted]	21
EEE	Women	0	16
	Men	[redacted]	35
Maths	Women	0	[redacted]
	Men	0	[redacted]
MEA	Women	0	[redacted]
	Men	[redacted]	20

(v) Progression pipeline between undergraduate and postgraduate student levels

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

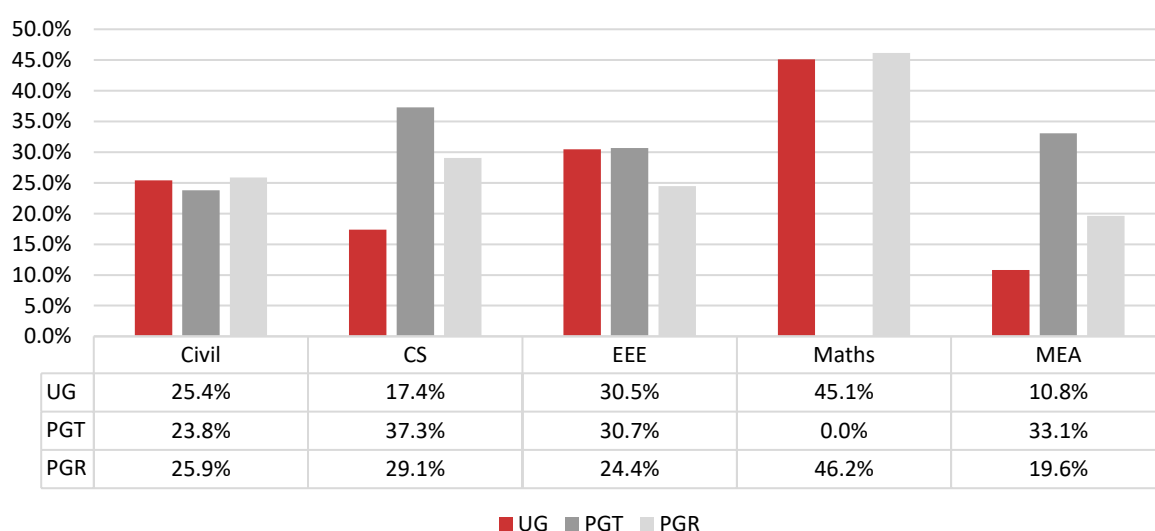
Many of the MSc programmes in the School are aimed at early/mid-career professionals, and so have intakes which are largely distinct from the existing undergraduate population. This is particularly true in the Engineering disciplines, where students are encouraged to follow the MEng route rather than BEng + MSc. Indeed, Aviation Management and LIS have no associated UG programmes at all. Thus the progression pipeline is indirect, as the recruitment of MSc students is primarily from outside the University. At the PGR level there are a small number of successful PGT (or even UG) students who enter the PhD programmes, but most students are again external.

This means that actions around postgraduate student numbers and the representation of women must largely be devoted to external promotional activities, except at the PGR level.

From Figure 2.5 we see that the proportion of women improves from UG to PG across the School. Similar trends are apparent in each of the subject disciplines (Figure 4.30), although there is a significant dip from PGT to PGR in CS, EEE, and MEA. Thus our two main challenges appears to be at the very start, where we should aim to increase the proportion of women entering the UG programmes, and at the PGT to PGR transition in CS, EEE, and MEA.

- Action 1.2: Support suitable Taught students to pursue a doctoral degree through: (a) better publicity of PhD studentships offered by the School; (b) an annual event to discuss application process, funding opportunities, etc., including a discussion session for prospective students with existing doctoral students to share their experiences.
- Action 1.3: (a) Ensure proportionate representation of women staff or student ambassadors at open days, offer-holder days, outreach work etc. to increase visibility of women students and staff to prospective students; (b) Organise UG outreach events focussed on women in STEM, particularly in Engineering, in secondary schools; (c) Ensure recruitment material highlights our current proportion of women students in each discipline.

Figure 4.30: The UG/PG pipeline: % women students 2017/18



4.2. Academic and research staff data

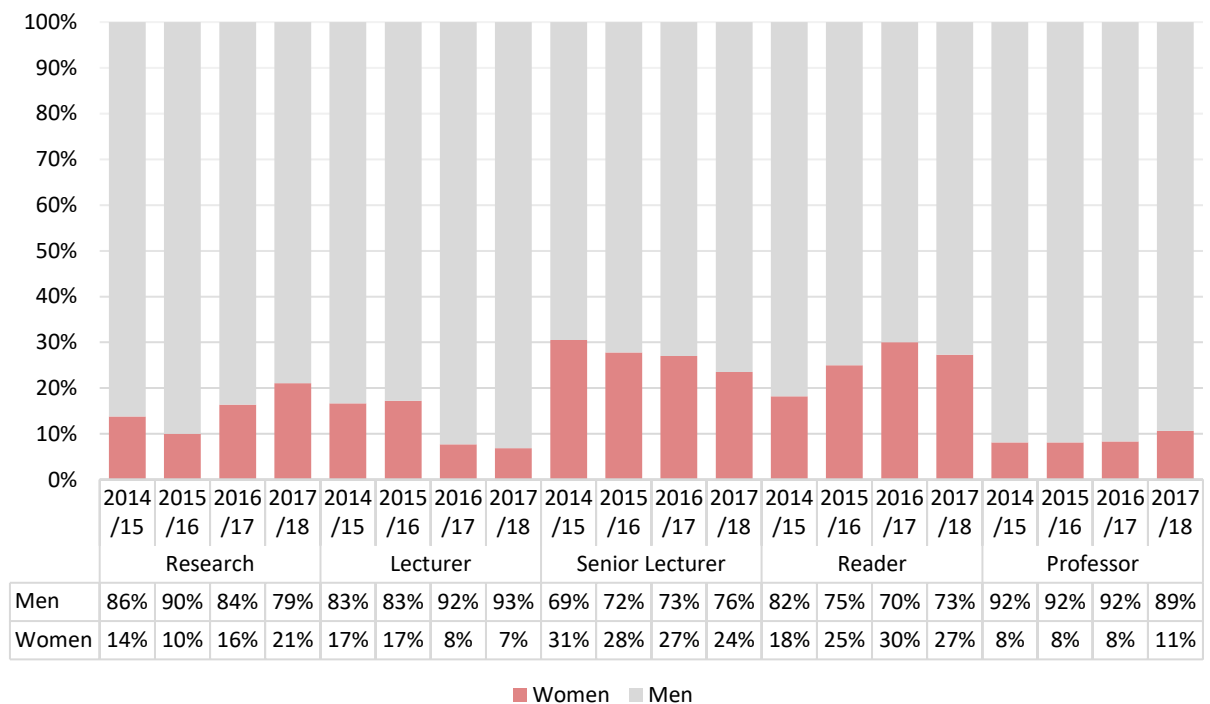
(i) Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only

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.

Researchers are on 'research only' contracts (21% women) and other academics (Lecturer to Professor) are on 'education and research' contracts (15% women) with the exception of [redacted] staff on 'education only' contracts (redacted% women). Promotion criteria have routes through which staff with different domains of expertise can be promoted (i.e., research and education route or education route).

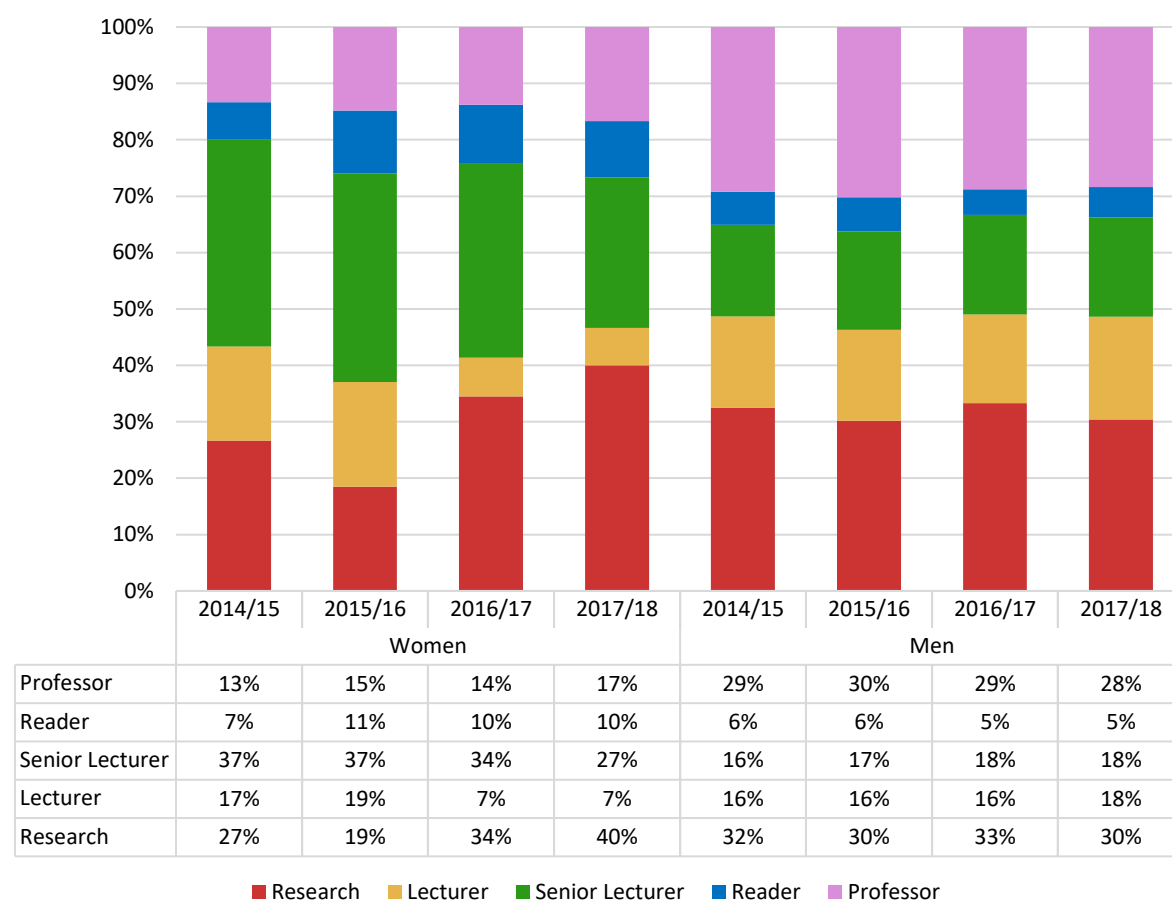
The proportion of women at each grade has remained fairly constant over time. What is noticeable is that the proportion of Senior Lecturers or Readers who are women (25-30%) is significantly higher not only than the proportion who are professors (8%), but also than the proportion who are Lecturers or Researchers (15-20%) (Figure 4.31). Thus there clearly appears to be an obstacle to progression for women from Senior Lecturer or Reader (Figure 4.32); actions to address this will be considered in Section 5.1(iii).

Figure 4.31: Academic Grade



[headcounts redacted]

Figure 4.32: Academic grade by gender



[headcounts redacted]

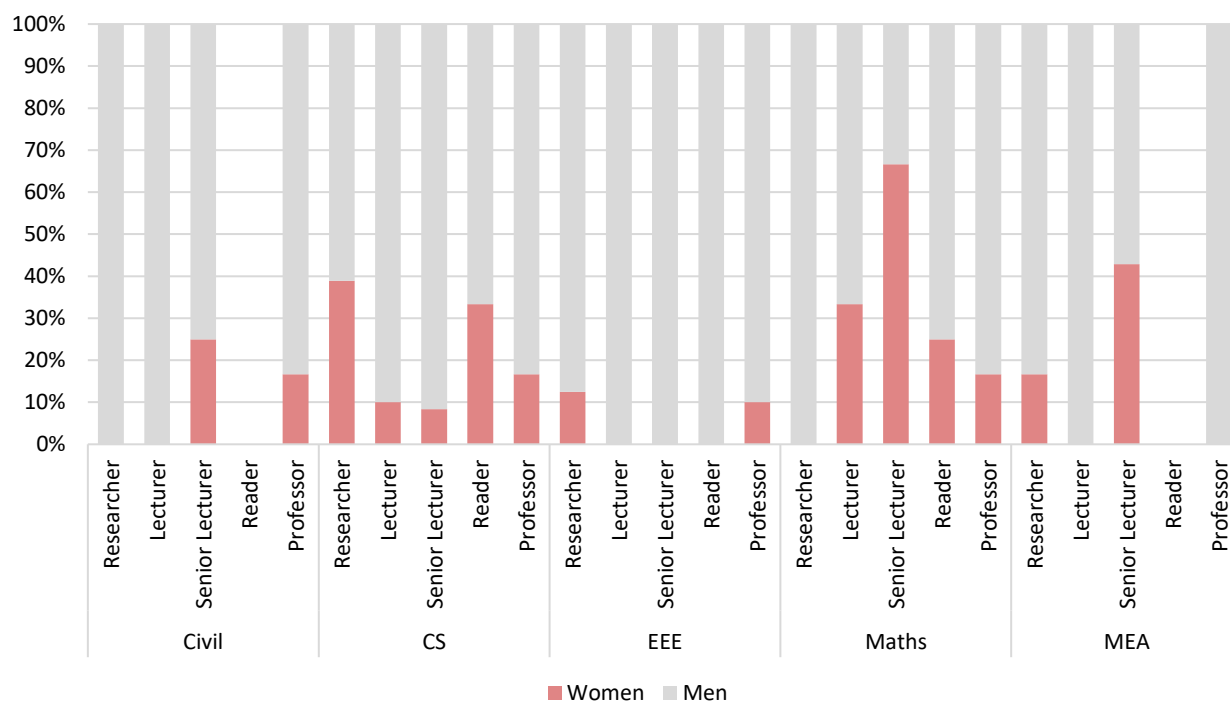
At Departmental level numbers at each grade are very small, and much of the variation is an inevitable consequence of these small numbers. As the pattern is relatively similar in each year we include the data for 2017/18 (Figure 4.33) as typical. It is noticeable that in all Departments there is a distinct spike at Senior Lecturer/Reader level, indicating that the issues with progression for women at this stage are a School-wide problem.

However there appear to be particular issues in EEE and MEA where the already low proportion of women becomes significantly worse once researchers are excluded (1W 18M in EEE (5% women) and 3W 24M in MEA (11% women)). However [redacted] women Lecturers have been recruited in EEE since the 2017/18 census date, which improves their relative position.

In the current economic climate it is unlikely that there will be significant recruitment activity in the short term, and so opportunities for rectifying these low proportions will be limited. However, it is noticeable that there is a very significant variation in the number of applicants for Lectureships in the different disciplines, with over 150 for a recent Maths Lectureship compared with fewer than 30 for one in MEA. There is much greater competition in the Engineering disciplines, both with other universities and with industry, and so it is particularly important that the posts advertised are as attractive as possible to all applicants.

- Action 2.1: (d) Highlight employee benefits and include welcoming message which describes the attractive options for women in recruitment/career publicity platforms; (e) Ensure that all job advertisements state that part-time candidates will be considered.

Figure 4.33: Academic grades by gender and Department 2017/18



[headcounts redacted]

Staff ethnicity and intersection with gender

Overall, 27% of academic staff are BAME, including 30% of women and 26% of men. This is in line with the sector which ranges from 14% in Maths to 32% in EEE. The distribution by grade and gender is given in Figures 4.34-35; it is noticeable in both cases that the greatest proportion of BAME staff are found in the research grades, but that the next highest proportion are found among the Professoriate. Further, there are higher proportions of BAME women than men among Professors (40% compared to 21%) and Senior Lecturers (25% compared to 15%), but lower proportions among Lecturers (0% compared to 22%).

Figure 4.34: Grade by ethnicity: Women

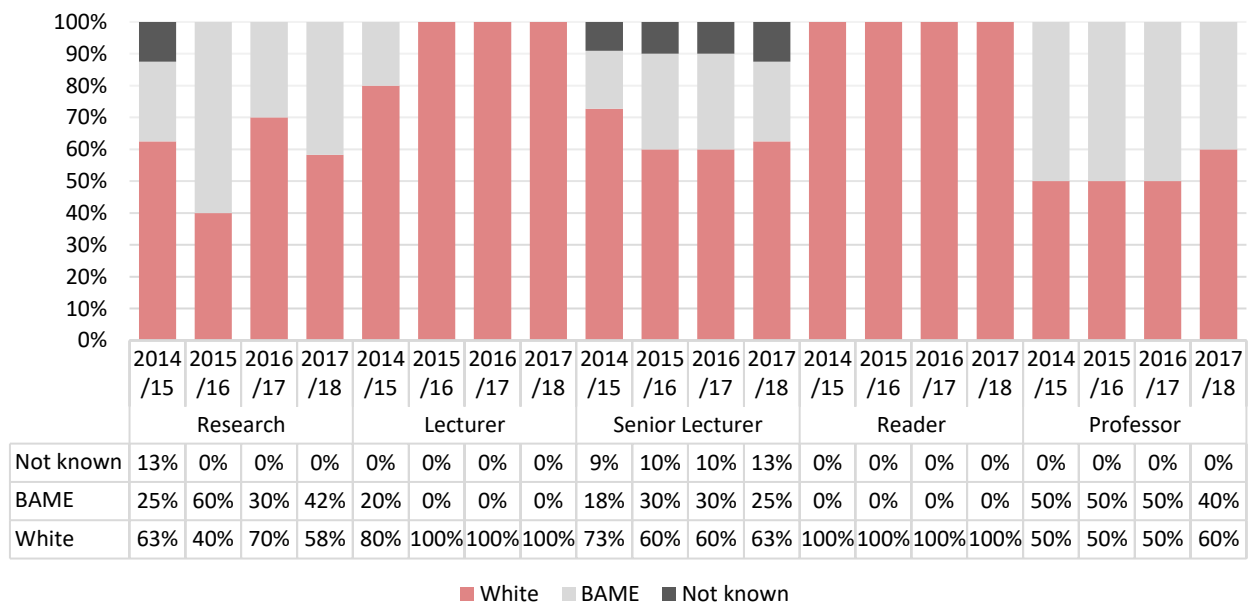
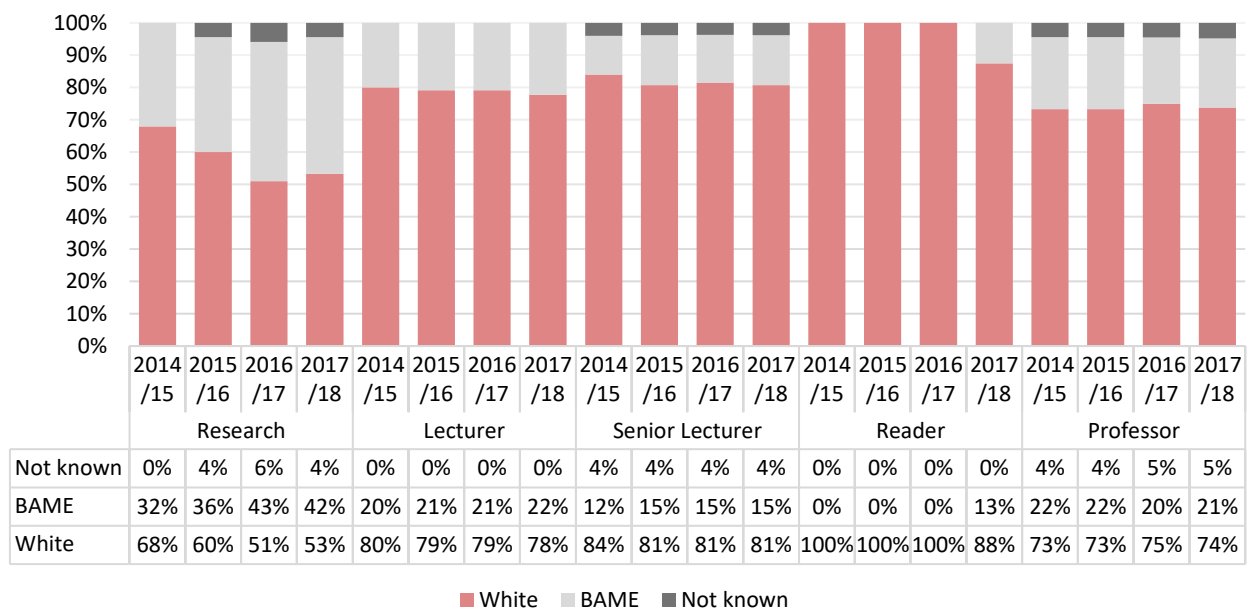
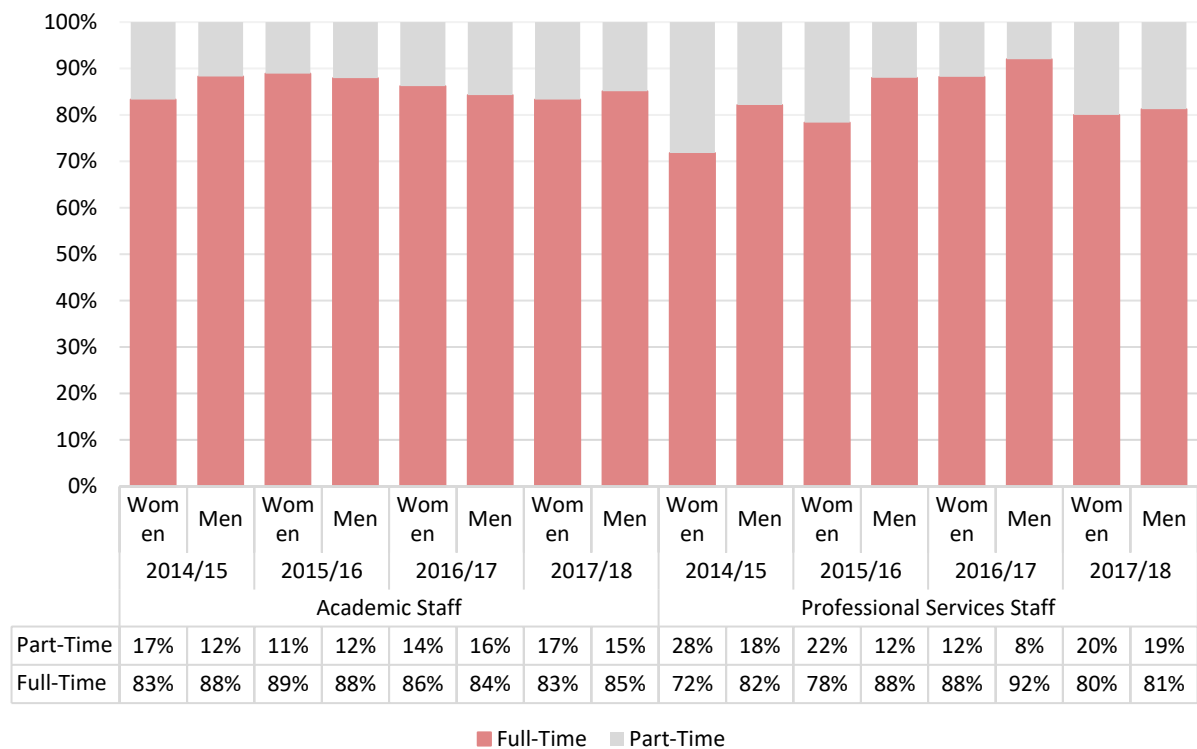


Figure 4.35: Grade by ethnicity: Men



Although contracts do not vary by job type, there is some difference between the distribution of full and part-time contracts. We first note that for PS staff, women are more likely to be part-time than men, but for academic staff women are slightly less likely to be part-time than men (Figure 4.36). Women PS staff are more likely to be part-time than women academic staff. It is possible that PS staff feel more able to change to a PT role, confident that they will be able to move to a FT role later in their career if desired, than do their academic colleagues.

Figure 4.36: School Headcounts FT/PT

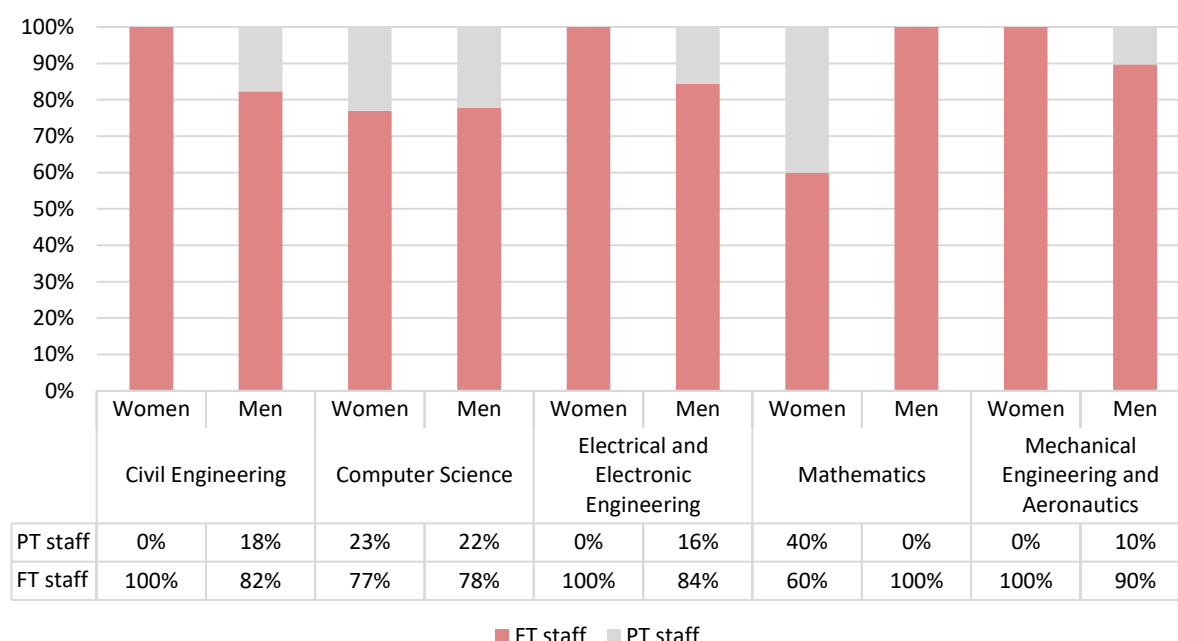


[headcounts redacted]

There is considerable variation across Departments. The data is relatively consistent over the years. Therefore, we show the results for 2017/18 (Figure 4.37). It is noticeable that only Maths and CS have part-time women staff.

- Action 2.1: (e) Ensure that all job advertisements state that part-time candidates will be considered.

Figure 4.37: Departmental FT/PT 2017/18



[headcounts redacted]

Looking at FT/PT by grade, men are mostly part time as Researchers or Professors, whereas PT women are more uniformly distributed across the grades (Figures 4.38-39). However, the number of PT staff by grade is very small, so this must be treated with caution. Together with the grade data (Figures 4.31-32), this suggests that the current career structure may discourage changes to PT status, for example if a parent or carer, and/or disadvantage PT staff seeking further promotion. However, the FT/PT split is insufficient to explain the decline in the proportion of women from Senior Lecturer/Reader to Professor, and so other actions will need to be taken to address this (see sections 5.1(iii) and 5.3).

- Action 4.1: (a) Set up a School Working Party to review the current School interpretation of the University promotion criteria; (b) Create clear promotion criteria for PT staff; (c) Ensure that promotion criteria are transparent and communicated regularly to all staff.
- Action 4.2: Set up support forum for PT staff to clearly identify actions for their promotion and career development, and develop tailored support provisions for specific circumstances (for example having caring responsibilities).

Figure 4.38: FT/PT Women by grade

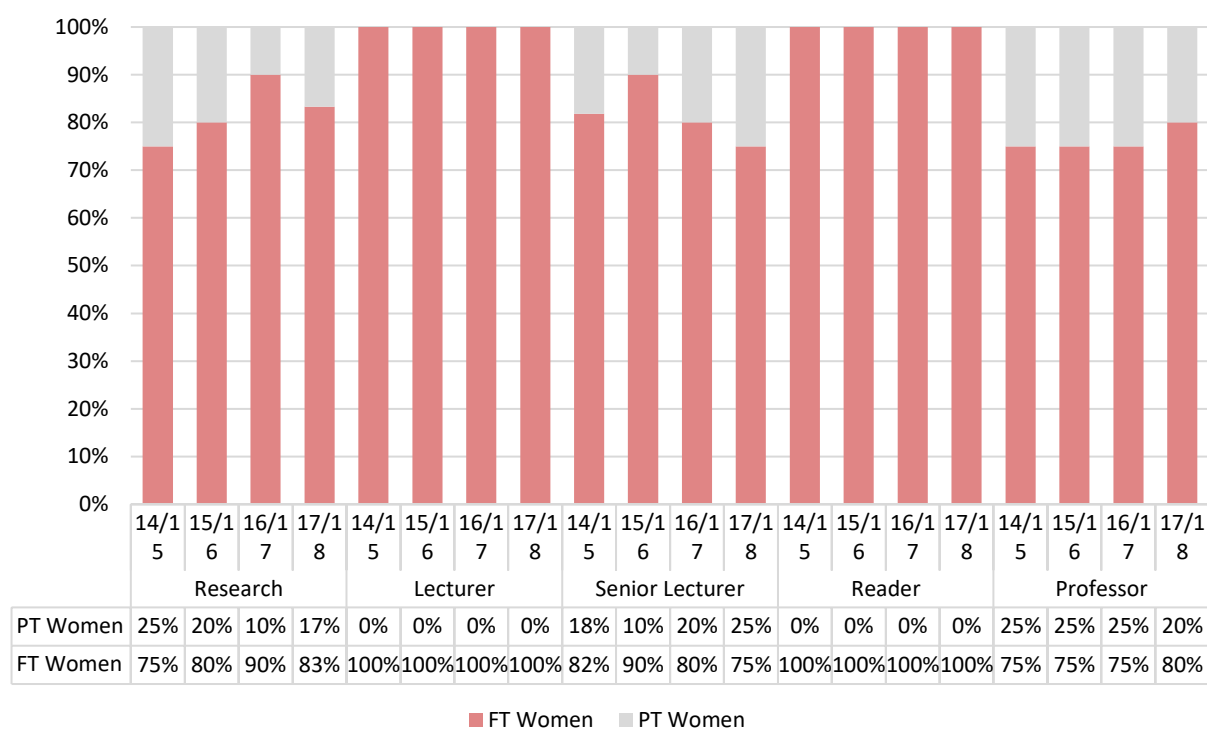
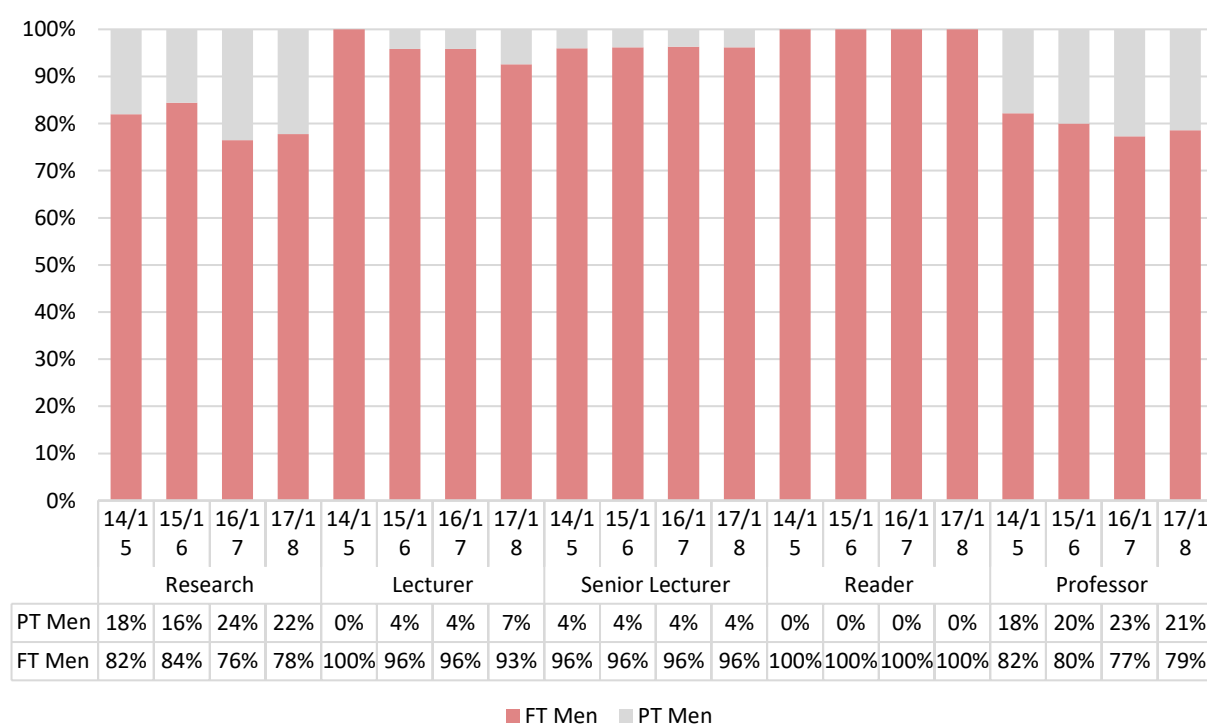


Figure 4.39: FT/PT Men by grade



[headcounts redacted]

SILVER APPLICATIONS ONLY

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

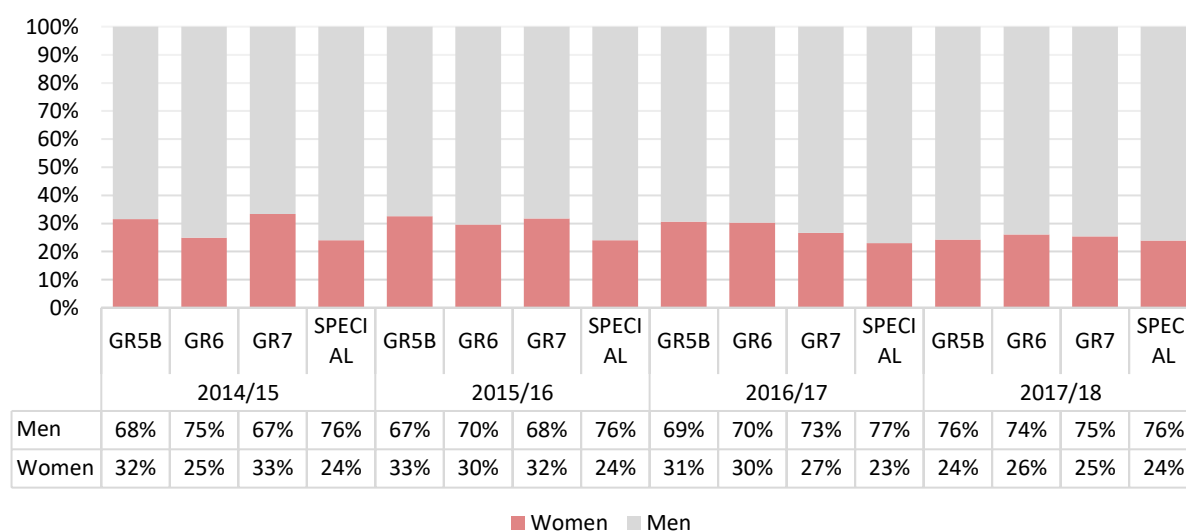
(ii) Academic and research staff by grade on fixed-term, open-ended/permanent and zero-hour contracts by gender

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.

The School has a policy that no staff on research or research and teaching contracts are on fixed-term contracts in the School. When the funding for a research contract is coming to a close, HR will contact the Principal Investigator to investigate whether any funding extension is possible, and then identify whether any redeployment possibilities exist within the School for affected staff.

The proportion of women employed on Visiting Lecturer contracts is higher than for staff on standard academic contracts. Grades 5B corresponds to a junior research contract while grades 6 and 7 correspond to the Lecturer level, and Special corresponds to more senior staff. There is a slight reduction in the proportion of women on the higher grades, but this is much less dramatic than for standard academic staff, and has improved in recent years (Figure 4.40).

Figure 4.40: Visiting staff



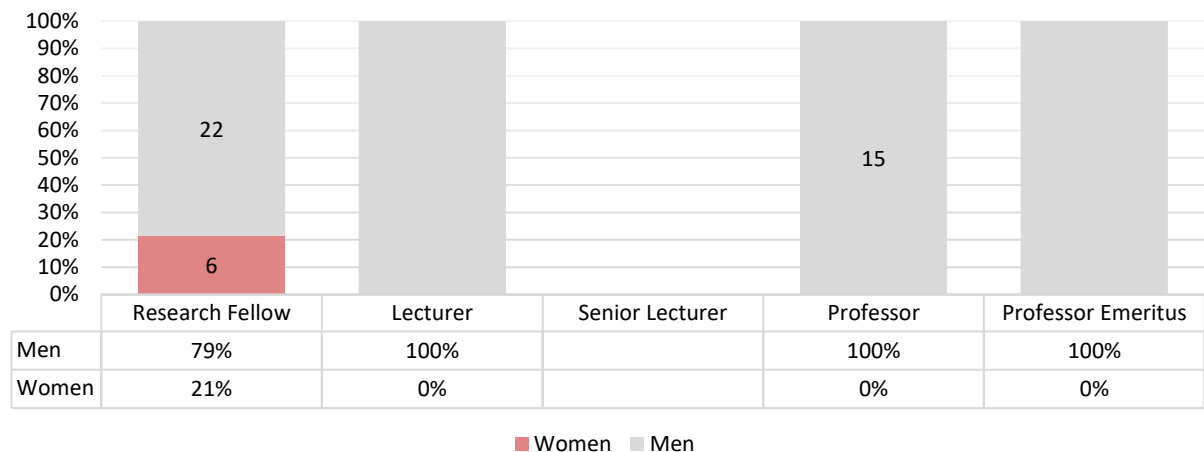
[headcounts redacted]

Unfortunately, for honorary staff, the situation is very different. Non-Professorial honorary staff are appointed by the Board of Studies on the basis of a recommendation from a staff member; for Professorial appointments the Board makes a recommendation to University Senate. The Board expects to see evidence that the candidate will contribute to the School, typically through research

collaboration. Total numbers of appointments are low, but as of July 2018 there are no women appointed to honorary positions higher than Visiting Fellow, and few even at that level (Figure 4.41).

- Action 2.3: (a) Record data about the gender composition of honorary staff and present annually to the Board of Studies; (b) Consider gender proportionality when approving proposals for honorary appointments; (c) Encourage staff to propose suitable candidates for honorary fellowships.

Figure 4.41: Honorary staff in 2017/18



[headcounts redacted]

(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.

As numbers are small we consider leavers from 2014-18 together. The primary reason for research staff to leave is the expiry of their contract due to lack of further funding. Men are more likely to resign at this stage than women, which may indicate disproportionate success at obtaining further positions.

- Action 5.4: (a) Introduce annual workshop for postdoctoral researchers to pursue career opportunities in academia, including advice on the academic interview process.

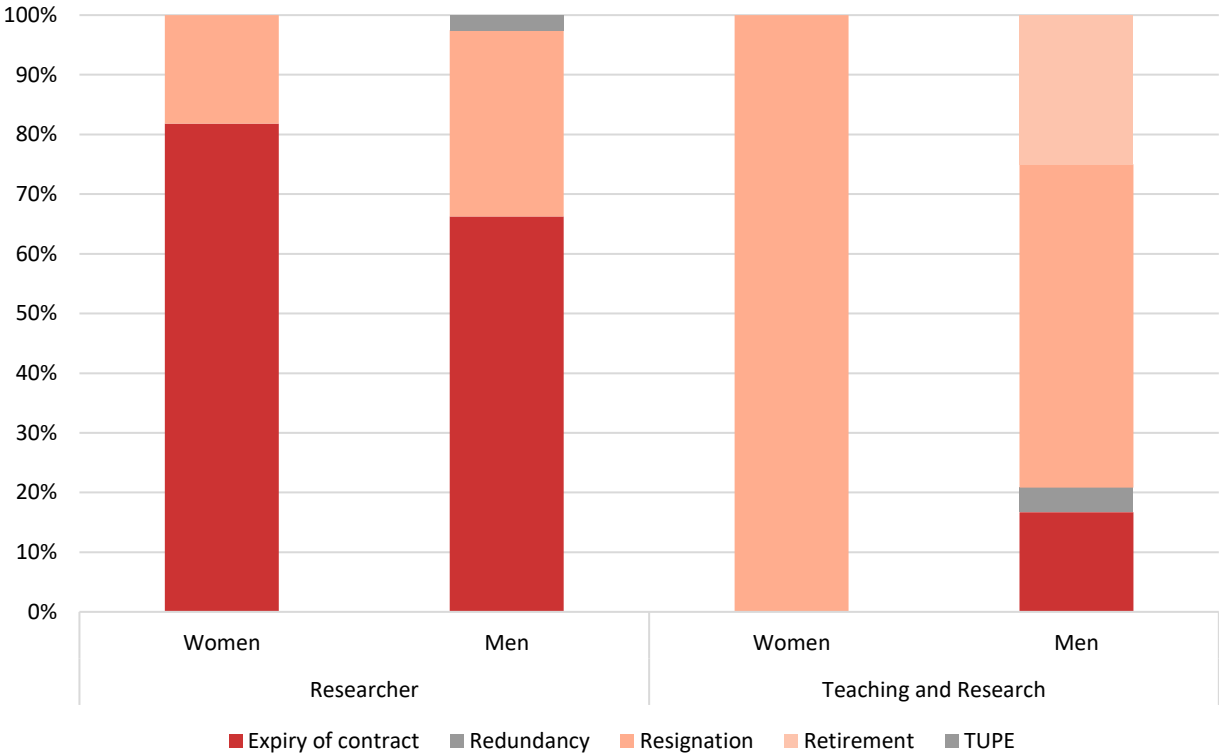
However, for other academic staff there is a clear difference between genders, with all women leavers resigning. The number of women resigning is disproportionately high compared to the relative headcounts, and all women resigning are at the Lecturer/Senior Lecturer grade, which may indicate that there is an issue with career progression and/or support for women at this grade.

- Action 4.3: (a) Set up promotion support forum and meet annually to identify actions for career progression; (b) Include discussion of anonymised successful promotion case studies of applications for different grades and genders as part of annual Academic Promotions Workshop; (c) Match unsuccessful promotion candidates with suitable mentors.

- **Action 8.1: Prioritise ECR staff for allocation of School PhD studentships to ensure all ECRs have been allocated at least one PhD studentship to support their research.**

Resignations of men are more evenly spread across the different grades (Figure 4.42). The reason for leaving is collected via the staff HR records; all leavers are invited to give feedback via a link provided in their final leaver’s letter, but take-up is very low. More detailed feedback can also be provided through an interview with the School HR manager.

Figure 4.42: Leavers



[headcount redacted]

Section 4	
Actual word count	2431 (includes 480 discipline specific analysis) (This excludes headings, sub-headings, tables, graphs and references to action points.)
Recommended word count	2000

5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

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

In this section we shall make frequent use of the AS Survey results from May 2018, considered by gender, Department, and Academic/PS. The data may appear inconsistent; this is because some PS staff identified themselves as being in an Academic Department as part of the survey. Also, the survey did not distinguish between the different parts of Engineering. There were some respondents who preferred not to report their gender; in our analysis we will not consider these except around bullying and harassment where their responses are significant. When fewer than 10 responses were received the results are not included to ensure anonymity is maintained.

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.

Job vacancies are advertised online through City's website, as well as other online platforms. Formerly, MCSE did not have processes to ensure under-represented genders were encouraged to apply. It is University policy that all panels responsible for nominations or decisions relating to recruitment must contain at least one man and one woman, and this is assured in MCSE by the School HR team. Panels are expected to have suitable training on equality and diversity; we plan to formalise this requirement more precisely.

- Action 2.1: (a) Ensure all job advertisements have inclusive language highlighting commitments to ED&I; (b) Ensure all advertising materials encourage women and underrepresented ethnicities to apply; (c) Ensure use of established and inclusive job boards for vacancies, such as Women in Science and Engineering (WISE) networks; (d) Highlight employee benefits and Include welcoming message which describes the attractive options for women in recruitment/career publicity platforms; (e) Ensure that all job advertisements state that part-time candidates will be considered.
- Action 5.3: (c) Make the Inclusive Leadership training and the Recruitment for Managers training compulsory for all chairs of recruitment panels.
- Action 9.8: Review publicity materials annually to ensure they are reflective of ED&I in the School, including where possible examples of successful women alumni. This includes webpages, prospectuses, course material, open days publicity, recruitment and job advertisements, etc.

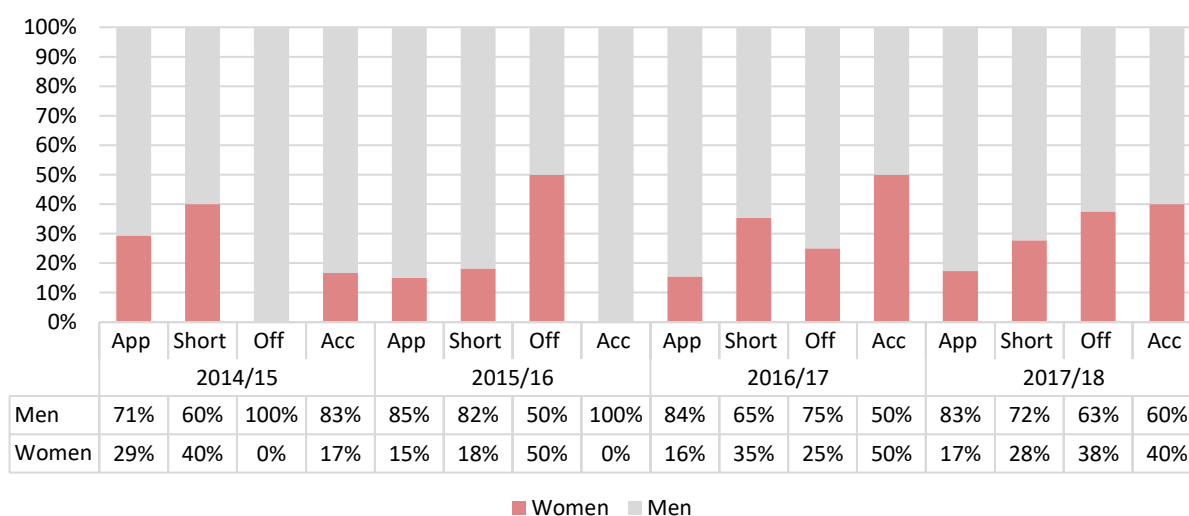
Application data is presented in the Figures/Tables 5.1-5.4. Analysing this data is complicated because of the large proportion of applicants who did not disclose their gender. We have considered the proportion of women from the total of those who disclosed their gender but it is unclear how the currently uncategorised candidates would change this analysis. Some of the data may appear inconsistent (such as the number of women accepting offers in 2014/15 being greater than the number of such offers made) – however these anomalies are primarily due to factors such as application periods spanning year boundaries.

Except in 2014/2015, women make up 15-17% of applicants for academic (non-researcher) posts (Table 5.1 and Figure 5.2). However, the percentage of women short-listed is much higher, ranging between 18-40% in the past 4 years. This suggests that the introduction in 2017 of a School policy to have no single gender shortlists has been successful. Further, the percentage of women receiving offers was even higher in the past 3 years, ranging between 25-50%.

Table 5.1: Academic Posts (Non Researchers)

	Stage	Women	Men	Not Disclosed	% Women of Those who Disclosed
2014/15	Applications	[redacted]	[redacted]	27	29%
	Shortlist	[redacted]	[redacted]	0	40%
	Offers	[redacted]	[redacted]	0	0%
	Acceptance	[redacted]	[redacted]	0	17%
2015/16	Applications	16	90	28	15%
	Shortlist	[redacted]	[redacted]	0	18%
	Offers	[redacted]	[redacted]	0	50%
	Acceptance	[redacted]	[redacted]	0	0%
2016/17	Applications	50	272	60	16%
	Shortlist	[redacted]	[redacted]	0	35%
	Offers	[redacted]	[redacted]	0	25%
	Acceptance	[redacted]	[redacted]	0	50%
2017/18	Applications	27	129	34	17%
	Shortlist	[redacted]	[redacted]	0	28%
	Offers	[redacted]	[redacted]	0	38%
	Acceptance	[redacted]	[redacted]	0	40%

Figure 5.2: Candidates for Academic Posts (non-researchers) who disclosed their gender



Applications for research posts have a much higher proportion of gender not disclosed candidates. There are no clear trends over the years considered in the progression of applications by women

through the process (Table 5.3 and Figure 5.4); increases in 2015/16 and 2017/18 are reversed in the other two years. However, with the exception of 2017/18, the proportion of acceptances from women is significantly lower for research positions than for non-research positions.

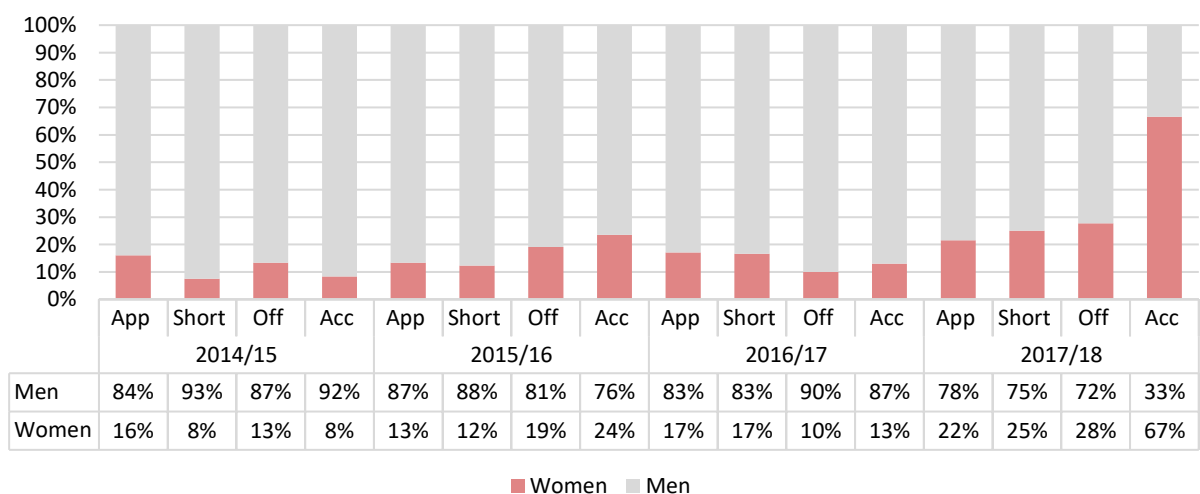
[headcount redacted]

- **Action 2.2: Actively promote PDR opportunities internally and externally to women through webpages, international research collaborators, overseas partners, City alumni events, etc.**

Table 5.3: Research Posts

	Stage	Women	Men	Not Disclosed	% Women of Those who Disclosed
2014/15	Applications	27	141	154	16%
	Shortlist	[redacted]	[redacted]	26	8%
	Offers	[redacted]	[redacted]	[redacted]	13%
	Acceptance	[redacted]	[redacted]	[redacted]	8%
2015/16	Applications	50	324	101	13%
	Shortlist	10	71	[redacted]	12%
	Offers	[redacted]	[redacted]	[redacted]	19%
	Acceptance	[redacted]	[redacted]	[redacted]	24%
2016/17	Applications	39	189	54	17%
	Shortlist	[redacted]	[redacted]	0	17%
	Offers	[redacted]	[redacted]	18	10%
	Acceptance	[redacted]	[redacted]	0	13%
2017/18	Applications	63	229	87	22%
	Shortlist	13	39	[redacted]	25%
	Offers	[redacted]	[redacted]	[redacted]	28%
	Acceptance	[redacted]	[redacted]	[redacted]	67%

Figure 5.4: Candidates for Research Posts who disclosed their gender



[headcount redacted]

(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.

New staff are invited to a University-level “Welcome to City” workshop which provides key information, and opportunities to network and ask questions. This workshop introduces staff to the wider institution and to support available from various services. In addition, induction is also carried out by the HoDs /line managers and supported by the School HR team. However there is currently no review that this induction has taken place or that it has covered everything needed by the new starter. Further, the AS Survey suggests that take-up of induction events is poor (Table 5.5). Induction workshops are also run by School HR and include the completion of mandatory online courses in E&D, Health and Safety, and other requirements of the role.

Table 5.5: AS Survey results for induction

Survey Statement	Women Attended	Men Attended	Women Unaware of event	Men Unaware of event	Women Satisfied	Men Satisfied
When you joined City did you attend the ‘Welcome to City’ induction?	71%	49%	9%	19%		
When you joined City did you attend a School induction event?	53%	51%	11%	19%		
If you attended the ‘Welcome to City’ induction did it meet your needs?					72%	62%
If you attended a School induction event did it meet your needs?					68%	71%

[quantities redacted]

- Action 3.1: (a) Better promote Welcome to City induction workshop to all new staff; (b) Make the induction mandatory for all new staff.
- Action 3.2: (a) Set up an induction checklist to be completed by all new staff with their line manager. This will cover matters ranging from the requirements of the role, support and resources available, the various HR induction workshops, and meetings with relevant senior staff; (c) Consider uptake report annually at School ExCo.

As part of our review during this application, we have developed a School staff guide (see Figure 5.6). This was a new initiative, designed by the School HR team in consultation with HoDs and other line managers, and built on a successful model introduced by the School of Health Sciences as part of their AS application in 2017. This will be given to all new staff as part of their induction and is also available online, and has been promoted to all staff via email. It will be updated at regular intervals to be a single source of basic information which complements the more extensive set of resources available from the University on the online Staff Hub.

- Action 3.2: (b) Ensure that the Staff Guide (including HR policies regarding flexible working, long-term leave, appraisal, career progression, etc.) is regularly updated and circulated to all staff.

Figure 5.6: MCSE School Staff Guide



(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.

Academic staff are invited to apply for promotion via emails to all staff from the University HR Director and MCSE's Dean. Promotion panels consider staff achievements, contributions to research, education, professional practice and service/leadership. Applications are initiated by the staff member but HoDs are expected to encourage individuals to apply. However, the AS Focus Group participants felt that staff should be more pro-actively encouraged to apply.

- **Action 6.1: (b) Ensure career progression and promotion are discussed with eligible staff as part of appraisals; (d) Require appraisers to record on the appraisal form when career progression has been considered.**

It is University policy that all panels responsible for decisions relating to promotion must contain at least one man and one woman, and this is assured by the School HR team. Promotions from Lecturer to Senior Lecturer are determined at School level. Promotions to Reader, Associate Professor and

Professor, as well as advancement within professorial banding, are first considered at School level, but ultimately are determined at University level by the Academic Promotions Committee chaired by the President (38% women, 62% men).

Figures 5.7-5.9 show data for promotions. In general, the percentage of women who applied for promotion is lower than men, but matches with those who are eligible from 2013 to 2015. The number of successful promotion applications is very low, and in particular only three Senior Lecturers or Readers have been promoted in the last 4 years.

Figure 5.7: Promotion from Lecturer to Senior Lecturer

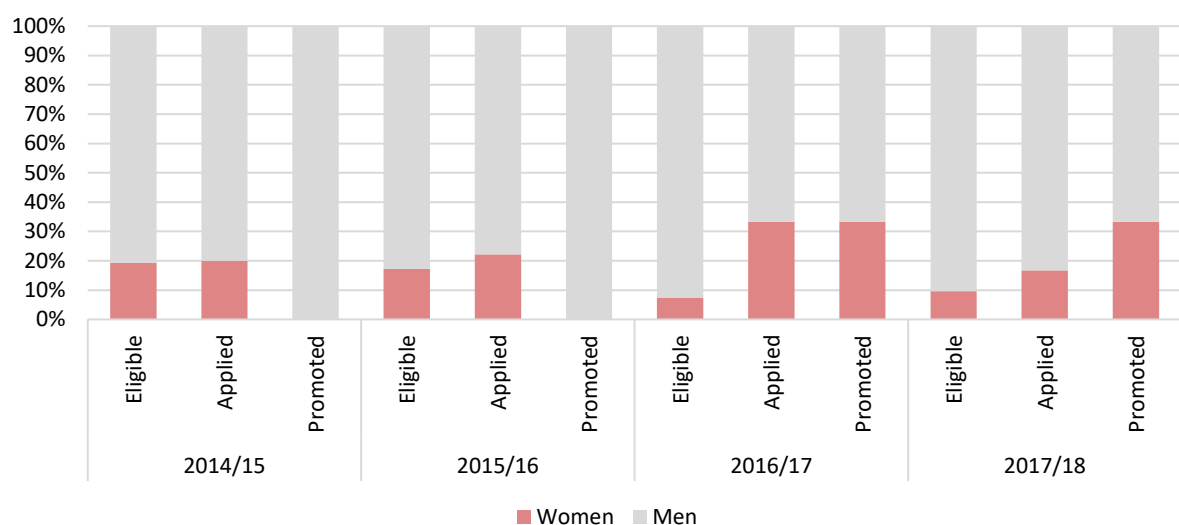
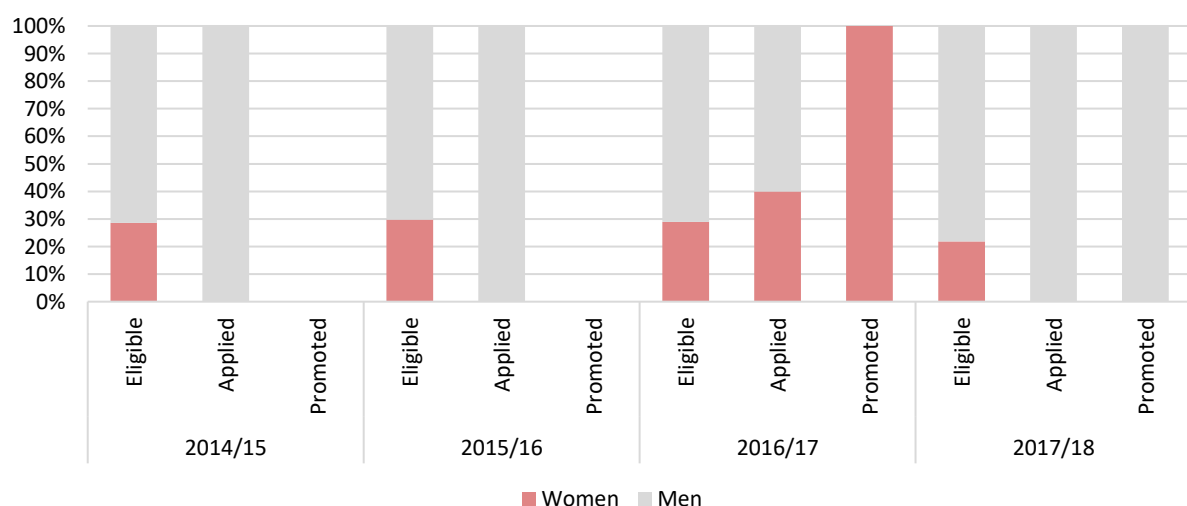
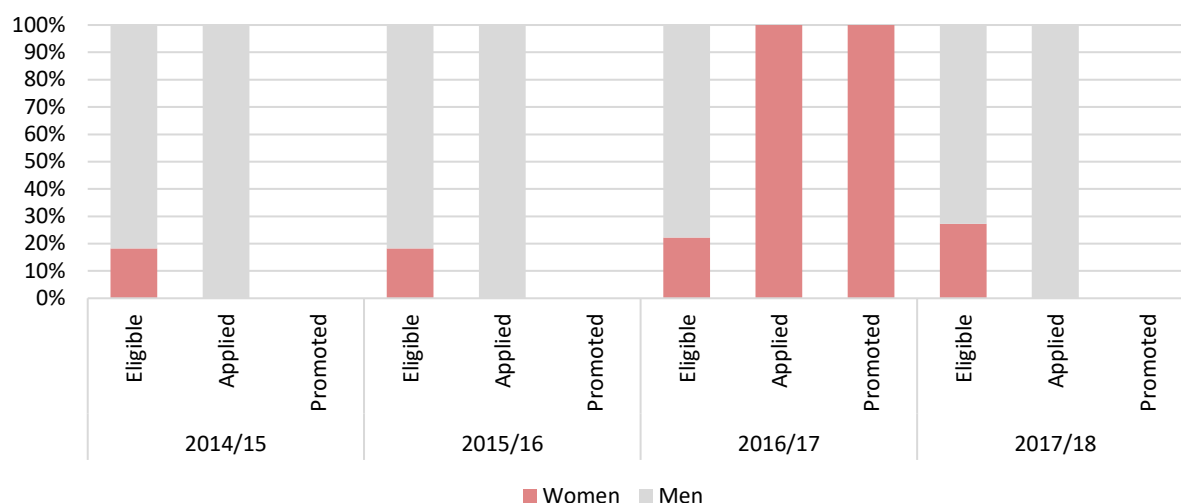


Figure 5.8: Promotion from Senior Lecturer to Reader/Associate Professor/Professor



[quantities redacted]

Figure 5.9: Promotion from Reader to Professor

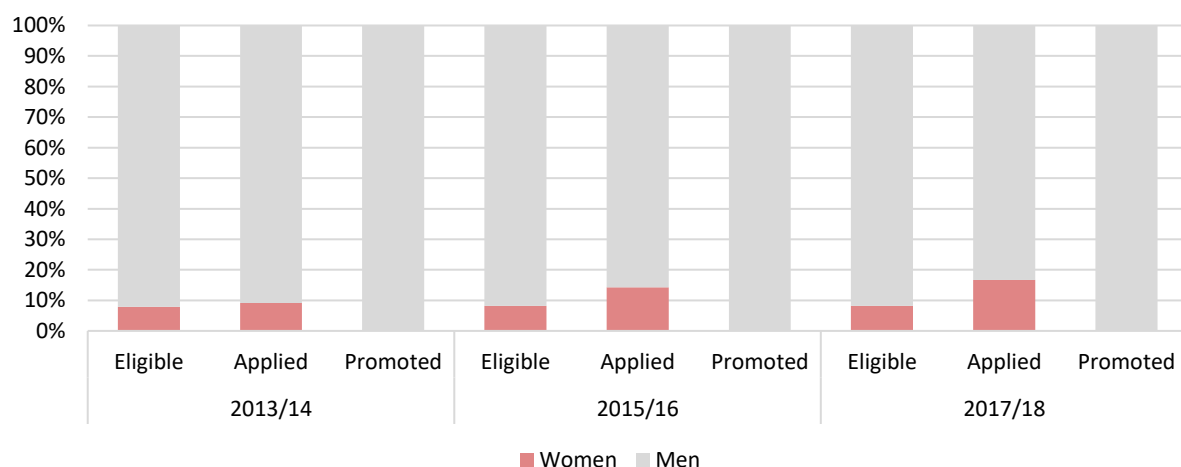


The discipline specific interpretations of the University criteria for promotion were reviewed a few years ago, and are more rigorous than was formerly the case (particularly around the amount of grant income expected for promotion). This caused considerable confusion and dissatisfaction and the School has organised a series of annual Academic Promotions Workshops to enable staff to understand the new expectations and how to develop a successful application. The AS Focus Group participants generally felt that there was insufficient recognition given to non-research-related activities in the promotion process.

- **Action 4.1: (a) Set up a School Working Party to review the current School interpretation of the University promotion criteria; (b) Create clear promotion criteria for PT staff; (c) Ensure that promotion criteria are transparent and communicated regularly to all staff.**

A review of professorial banding is conducted every 2 years (see Figure 5.10; data is provisional for 2017/18, as appeals can still be submitted).

Figure 5.10: Change in Professorial Banding



AS Survey results (Tables 5.11-12) show very low understanding and confidence in the promotion procedures and associated support provided. Unsuccessful applicants receive written feedback and

can request to meet with the Dean or HoD for further feedback, but there is little formal support provided in advance of application unless their HoD or line manager volunteers it.

Table 5.11: AS Survey results for promotion - Women

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I understand City's promotion process and criteria	0% (0)	40%	10%	10%	10%	30%
I understand how my application would be assessed	0% (0)	10%	30%	20%	10%	30%
The promotion process is fair	0% (0)	0% (0)	44%	22%	11%	22%
I feel supported in making an application for promotion	10%	10%	40%	0% (0)	10%	30%

Table 5.12: AS Survey results for promotion - Men

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I understand City's promotion process and criteria	8%	39%	27%	14%	4%	8%
I understand how my application would be assessed	6%	29%	33%	20%	6%	6%
The promotion process is fair	4%	13%	34%	20%	22%	7%
I feel supported in making an application for promotion	6%	16%	28%	20%	18%	14%

[quantities redacted]

- Action 4.3: (a) Set up promotion support forums to meet annually to identify actions for career progression; (b) Include discussion of anonymised successful promotion case studies of applications for different grades and genders as part of the annual Academic Promotions Workshop; (c) Match unsuccessful promotion candidates with suitable mentors.
- Action 6.1: (a) Complete the new School career path training mapping for staff and leverage this to improve appraisals to support staff career progression.

Currently there is a large pool of 11 women who are Senior Lecturers who would be eligible to apply for promotion to Reader yet very few have applied ([redacted] in 2016/7 and none before).

- Action 6.1: (b) Ensure career progression and promotion are discussed with eligible staff as part of appraisals.

We have not recorded data on promotion rates for full-time and part-time staff. The University has just produced new guidance for promotion to provide greater specificity and encouragement for applications from part-time staff.

- Action 4.1: (b) Create clear promotion criteria for PT staff.
- Action 4.2: Set up support forum for PT staff to clearly identify actions for their promotion and career development, and develop tailored support provisions for specific circumstances (for example having caring responsibilities).

- **Action 4.4: Record promotion application and success rates for FT/PT staff.**

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

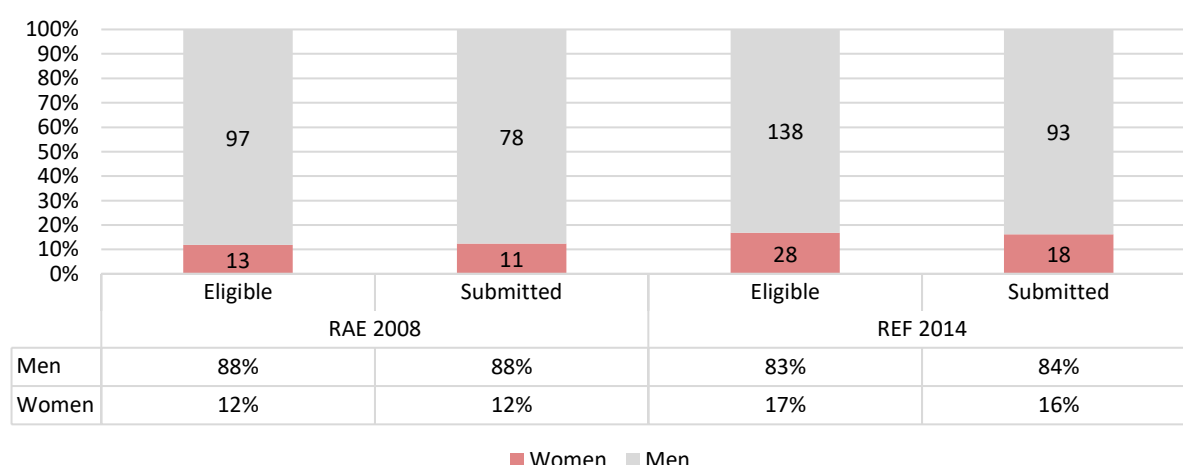
Provide data on the staff, by gender, submitted to REF versus those that were eligible. Compare this to the data for the Research Assessment Exercise (RAE) 2008. Comment on any gender imbalances identified.

The total headcount of academic staff eligible and submitted to REF 2014 and RAE 2008 is shown in Figure 5.13. The percentage of women submitted to REF 2014 increased as compared to RAE 2008 from 12% (11 women) to 16% (18 women). However, the total percentage of both men and women submitted decreased considerably (from 80% to 67% for men; and from 85% to 64% for women). This is mostly due to the more rigorous internal Annual Research Quality Monitoring (ARQM) review that was the basis for submission for REF 2014. The ARQM review continues to be used to monitor research quality across the University.

For the ARQM staff are asked each year to nominate up to four publications from the past four years, which are then assessed by the same criteria used for REF 2014 on the 1* to 4* scale. As for REF 2014, the number of outputs required is reduced for staff who are part-time, early career, or who have had maternity leave or other extended periods of absence. The process for assessing outputs is managed by the Research Centres, with some solely using external referees with REF panel membership experience, and others using a combination of internal assessment with external referees used for calibration of the results. Staff were entered in REF 2014 if their publications were rated as 3* or 4* by this internal review. Submission rates for women staff as a proportion of those eligible were almost identical to those for men.

- **Action 6.4: Introduce a standard process for determining the ARQM results for staff.**

Figure 5.13: RAE and REF submissions



SILVER APPLICATIONS ONLY

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.

(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.

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?

A variety of staff training and development programmes are available online, through face-to-face learning, internal or external networks. Training is available for research and enterprise, education, leadership and management. However, the AS Survey (Tables 5.14-15) reported low participation in training, and low confidence in the training opportunities for PT or flexible working staff.

Table 5.14: AS Survey results for professional development - Women

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I have participated in training related to my career progression or professional development		32%		41%	
I feel that staff who work part-time in my School are offered the same professional development opportunities as those who work full-time	19%	29%	42%	6%	3%
I feel that staff who work flexible hours in my School are offered the same professional development opportunities as those who work scheduled hours	19%	32%	39%	6%	3%

Table 5.15: AS Survey results for professional development - Men

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I have participated in training related to my career progression or professional development		49%		51%	
I feel that staff who work part-time in my School are offered the same professional development opportunities as those who work full-time	7%	16%	64%	7%	5%
I feel that staff who work flexible hours in my School are offered the same professional development opportunities as those who work scheduled hours	7%	19%	67%	6%	2%

Figure 5.16 shows the number of staff who have taken part in various forms of training. Unfortunately this data is partial as it only includes training organised by the University, and only counts staff once even if they have attended multiple courses from the same category; data for School level training was not recorded. The figure indicates the number of staff taking up training is generally very low, with the percentage of women ranging between 19-25%.

Figure 5.16: Training Courses



[quantities removed]

- Action 5.2: (a) Conduct thematic analysis of training needs identified in appraisals for both professional services and academic staff; look at specific training targeted to specific groups: e.g. ECR, future leaders, etc; (b) Provide annual training sessions identified as needed in thematic analysis of appraisals; (c) Create a School-level register of training of staff, updated annually.
- Action 5.5: (a) Encourage ECR staff to participate in training to assist with research such as writing grant applications and supervising PhD students; (b) Monitor and present annually at the Research Committee meetings attendance of staff at this training course.

A new School career path training mapping is being developed to support annual appraisals. This is intended to identify which training activities are of most use to staff at various stages of their career, and what training is required to undertake certain roles. This will enable staff to be given better support towards their career progression.

- Action 6.1: (a) Complete the new School career path training mapping for staff and leverage this to improve appraisals to support staff career progression.

The University has recently introduced or updated training in a variety of areas such as unconscious bias and dignity at work, which should be more widely taken up across the School. Participants in the AS Focus Groups commented that they were often unaware of some of the training opportunities available.

New staff are expected to take two modules from the MA in Academic Practice to support their teaching (unless they have already completed equivalent training elsewhere). They also have the opportunity to take further modules from the MA Programme.

Staff with management responsibilities are offered appropriate management development, coaching and mentoring. They are supported to prepare for formal stages in people management policies by the HR Manager.

- Action 5.3: (a) Make online ED&I training compulsory for all staff; (b) Make Inclusive Leadership training (which includes unconscious bias training) compulsory for all line managers; (c) Make Inclusive Leadership training and Recruitment for Managers training compulsory for all chairs of recruitment panels; (d) Make Trans awareness training compulsory for all member of School ExCo.

There are several programmes aimed at developing future leaders in the University. In particular the University participates in the Aurora programme run by the Leadership Foundation to develop women in academic and professional roles, and [redacted] academic and [redacted] PS staff from the School have participated in this.

(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.

Appraisals are undertaken annually and recorded using an online system. Appraisal discussions review work during the past year, set objectives for the coming year, and identify training and development needs. The appraisal process applies to all staff, including postdoctoral researchers. In the AS Survey (Tables 5.17-18) take-up of appraisals and their support for developmental training was reported to be poor.

Table 5.17: AS Survey results for appraisals - Women

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I have had an appraisal in the last year		61%		33%		6%
The appraisal process has supported my professional development	13%	42%	26%	19%	0%	
My appraiser has encouraged me to take part in professional development training	23%	39%	26%	13%	0%	

Table 5.18: AS Survey results for appraisals - Men

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I have had an appraisal in the last year		56%		33%		11%
The appraisal process has supported my professional development	5%	37%	32%	19%	7%	
My appraiser has encouraged me to take part in professional development training	11%	42%	26%	16%	5%	

[quantities redacted]

Each year training for appraisers and appraisees is offered by the University, but take-up is low. Although appraisers are all expected to have taken the training this is not currently monitored.

Participants in the Focus Groups felt that there was some inconsistency in the manner in which line managers encouraged staff to develop their careers. They commented that appraisals should have more focus on career development and discussions of possible promotion applications, with more proactive encouragement of staff to apply for promotion when appropriate.

- Action 6.1: (a) Complete the new School career path training mapping for staff and leverage this to improve appraisals to support staff career progression; (b) Ensure career progression and promotion are discussed with eligible staff as part of appraisals; (c) Ensure work-life balance issues are discussed with all staff, with particular consideration for PT staff and those with caring responsibilities, as part of appraisals; (d) Require appraisers to record on the appraisal form when career progression and work-life balance have been considered.
- Action 6.2: (a) Ensure that all staff are appraised each year; (b) Make appraiser training compulsory for all appraisers; (c) Encourage all staff to undertake appraisee training.

All staff engaged in teaching are expected to have peer review of some aspect of their teaching each year. This is intended to be a developmental activity to encourage reflection and foster good practice, and thus records of the review are only shared within each pairing unless a member of staff wishes to use evidence from their review during their appraisal or promotion application. The appraisal process only requires staff to report whether peer review has occurred. Currently the implementation of peer review is not uniform across the School, having been carried out annually in Maths and CS but not in Engineering.

- Action 6.2: (d) Create a School register of peer-review completion and report data to BoS at the end of each year to ensure peer review takes place for all academic staff.

(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.

MCSE provides support for career progression in various ways. These include appraisals (see section 5.3(ii)), financial support for conferences and travel, as well as a series of training courses related to career progression (see section 5.3(i)).

MCSE also provides opportunities for Post-Doctoral Researchers (PDR) to be active in teaching and assessment. They undergo formal training on a module from the MA in Academic Practice prior to teaching, and are included in peer review.

New lecturers are given a reduced teaching load during their first year.

- Action 4.2: Set up a support forum for PT staff to clearly identify actions for their promotion and career development, and develop tailored support provisions for specific circumstances (for example having caring responsibilities).
- Action 4.3: (a) Set up promotion support forums and meet annually to identify actions for career progression; (b) Include discussion of anonymised successful promotion case studies of applications for different grades and genders as part of annual Academic Promotions Workshop; (c) Match unsuccessful promotion candidates with suitable mentors.
- Action 5.4: (a) Introduce an annual workshop for postdoctoral researchers to pursue career opportunities in academia, including advice on the academic interview process; (b) Set up an early career researchers' forum.
- Action 8.1: Prioritise ECR staff for allocation of School PhD studentships to ensure all ECRs have been allocated at least one PhD studentship to support their research.

New staff are allocated a mentor during their probationary period, and mentors are often offered as part of leadership training programmes, but other staff are not generally considered for mentoring. The AS Survey indicates that very few staff (particularly women) have or are a mentor, but that many would like to be one (Table 5.19).

Table 5.19: AS Survey results for mentoring

	Has a mentor	Is a mentor	Would like to be a mentor
Women	11%	3%	40%
Men	22%	14%	46%

[quantities redacted]

- Action 5.1: (a) Offer and operationalise University mentoring scheme to ensure that all staff are offered a mentor, preferably outside their immediate area of work, for up to one year; (b) Set up a mentor-mentee list and review annually; (c) Run annual mentor/mentee training for staff;

(d) Utilise mentoring scheme to support all staff at all levels – ECR, career progression, training new leaders, etc.

Sabbaticals allow staff to develop their research outputs and grant proposals. Sabbatical applications are considered by the Board of Studies; since 2014/15 there have been [redacted] applications, all of which have been approved (Table 5.20). However there is considerable variation across the School. Maths and CS have had regular sabbatical applications for many years, unlike Engineering, with Maths taking 6 month sabbaticals to enable a greater number of staff to benefit.

Table 5.20: Sabbatical applications 2014-18

	Women	Men	%Women
Computer Science	[redacted]	[redacted]	14%
EEE	[redacted]	[redacted]	50%
Maths	[redacted]	[redacted]	30%
Total	[redacted]	[redacted]	26%

(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).

All students and recent graduates have full access to the University's Careers Service which helps with CV and application checks, career guidance and mock interviews, and organises career events. The MCSE Professional Liaison Unit has a Work Based Learning Advisor for each Department to ensure the students' career support is appropriate to their degrees, which includes helping second year students find placements which can be taken as an additional year as part of their degree, or over the summer. In Figures 5.21 and 5.22 (where the benchmark is the proportion of women in the cohort) we see that women are proportionally more likely than men to obtain one year placements in all disciplines, but significantly less likely than men to obtain summer placements in CS and Civil.

Figure 5.21: One year placements 2014-18

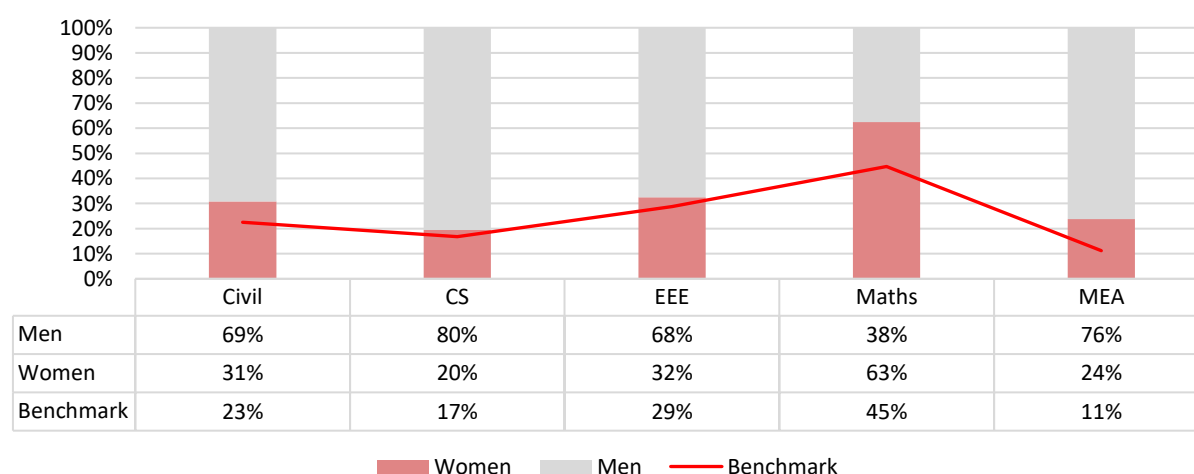
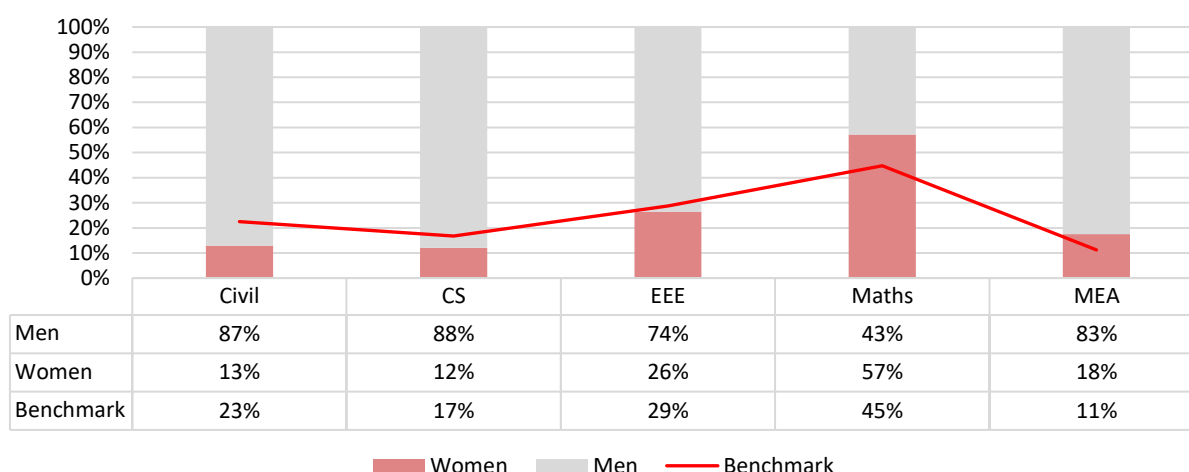


Figure 5.22: Summer placements 2014-18



[quantities redacted]

In Mathematics there is also a core Employability module in the first year as well as an optional Microplacements module. Some departments offer research-related project work, but this is not consistent across the School.

- Action 1.1: Encourage Taught students to actively participate in on-going research projects by: (a) offering appropriate final-year project/dissertation topics; (b) inviting them to research seminars, talks, etc.
- Action 1.2: Support suitable Taught students to pursue a doctoral degree through: (a) better publicity of PhD studentships offered by the School; (b) an annual event to discuss application process, funding opportunities, etc. including a discussion session for prospective students with existing doctoral students to share their experiences.

MCSE provide the opportunity to PGR students to be registered as teaching assistants in tutorials and as laboratory demonstrators. In addition PGR students, before taking on such roles, are required to take a module in teaching, learning and assessment organised by our University Learning Enhancement and Development (LEaD) Department.

MCSE organises an annual event for new PGR students that provides information about different career routes, including academic careers, and organises annual events for all PGR students to widen their skills training and improve the student experience.

PGR students are supported in several ways to transition to an academic career. The monthly Doctoral Seminar Series includes topics such as 'Writers block and managing time' and 'Disseminating and publishing your PhD'. MCSE holds an annual Doctoral Research Symposium which provides students with the opportunity to present their research and gain constructive feedback, as well as to network in a multidisciplinary environment. In addition, PGR students are members of our Research Centres (RC) engaging with other research and academic staff. Research Centres organise research seminars and meetings where they can present their research, journal reading clubs, peer support, writing workshops and strategy meetings. Each PGR student in the School is entitled to up to £1000 of School funding to support conference attendance to present their results.

- Action 1.4: (a) Organise workshops with input from the Careers Service and the Research & Enterprise office to promote careers in academia; (b) Organise annual workshops for PGR students to include writing grant applications, interview skills, career opportunities, and professional development; (d) Promote University Professional Mentoring Scheme to PGR students and monitor uptake.

(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.

The Research Centres in MCSE are the primary School structure for providing staff with support and mentoring for their research career progression and applications for funding. Some Centres have provided mentors or critical friends to review grant applications prior to submission, but the implementation of this has not been monitored and has been inconsistent.

The School currently has a Research Support Service Manager to help with pre-award processes and support, for example talking with staff about their research and possible funding sources; identifying funding opportunities; costing, developing and submitting research grant applications; as well as post-award support. However, the AS Survey (Tables 5.23-24) suggests that while women in general feel supported in undertaking research, a large number of men do not.

- Action 8.2: (a) Provide targeted training (e.g. Research & Enterprise Staff Development Programme) annually and if applicable make workload intervention, especially for ECR staff, in order to support research proposal preparation; (b) Introduce a peer-review process for grant proposals prior to submission, for ECR staff or those who have not previously been successful, and available to all staff on request (c) Support unsuccessful applicants by running an annual PI workshop to share good practice and discuss case studies of successful grant applications; (d) Match, where possible, unsuccessful applicants with staff mentors with a good track record of successful applications; (e) Monitor and present annually at Research Committee PI data on successful projects and those who applied but were unsuccessful.

Table 5.23: AS Survey results for research support - Women

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I feel supported in undertaking research	23%	46%	8%	8%	8%	8%
I feel supported in applying for research funding	17%	42%	25%	8%	0%	8%

Table 5.24: AS Survey results for research support - Men

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I feel supported in undertaking research	11%	34%	19%	21%	9%	6%
I feel supported in applying for research funding	11%	30%	23%	9%	17%	9%

Available financial support for research grant applications includes University pump-priming funds, which are for early career researchers. The scheme provides up to £5,000 for 12 months with applications accepted biannually. The numbers of applications and success rates are given in Table 5.25. Although the totals are small, women have been less successful than men in their applications.

Table 5.25: MCSE Pump Priming Applications

	Applications: Women	Applications: Men	Success rate (%): Women	Success rate (%): Men
2014/15	0		-	89%
2015/16			50%	71%
2016/17			0%	67%
2017/18			100%	33%

[quantities redacted]

- Action 5.5: (a) Encourage ECR staff to participate in training to assist with research such as writing grant applications and supervising PhD students; (b) Monitor and present annually at Research Committee attendance of staff at this training course.

SILVER APPLICATIONS ONLY

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?

(vi) 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.

(ii) 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.

5.5. Flexible working and managing career breaks

Very few staff have taken leave in the last five years (Table 5.26).

Table 5.26: Staff taking leave 2014-2018

	Stage	Women	Men
Academic	Maternity	[redacted]	0
	Paternity	0	[redacted]
	Shared Parental	[redacted]	0
	Adoption	0	0
Professional	Maternity	[redacted]	0
	Paternity	0	[redacted]
	Shared Parental	0	0
	Adoption	0	0

The AS Survey (Tables 5.27-28) indicated that while women largely felt supported around their leave, men predominantly did not. Using Keep In Touch (KIT) days and having an induction on return was very rare. 25% of both men and women felt that taking leave had affected their career.

Table 5.27: AS Survey results for leave - Women

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I was supported by my School before, during and on return from my maternity/adoption/shared parental leave		71%		29%	
I used my full allowance of Keeping in Touch (KIT) days (Up to 10 KIT days)		0% (0)		100%	
I had a return to work induction		14%		86%	
Taking maternity/adoption/shared parental leave has had an effect on my career	0% (0)	25%	50%	25%	0% (0)

Table 5.28: AS Survey results for leave - Men

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I was supported by my School before, during and on return from my maternity/adoption/shared parental leave		38%		62%	
I used my full allowance of Keeping in Touch (KIT) days (Up to 10 KIT days)		17%		83%	
I had a return to work induction		0% (0)		100%	
Taking maternity/adoption/shared parental leave has had an effect on my career	8%	17%	58%	8%	8%

[quantities redacted]

- Action 7.1: (a) Create an information pack on maternity/paternity/adoption/shared parental leave, promote this at an all-staff meeting, and provide to all new starters and appraisers; (b) Introduce mandatory training for line managers on the various leave policies, and ensure that new managers receive training within 6 months of starting; (c) Introduce an annual report to the School ExCo to monitor this process.
- Action 7.2: (a) Have a departmental mentor for staff taking any form of leave; (b) Ensure that as part of the Promotion process, staff taking leave will only be expected to achieve a proportionate level of outputs; (c) Set up MCSE Staff Survey and Focus Groups to review if staff feel better supported in 2 years' time; (d) Introduce an additional return to work interview 6 months after returning to see whether staff felt suitably supported.

(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.

Prior to starting maternity or adoption leave, staff are invited to discuss their plans with their HoD. This includes the likely period of leave, and plans for any KIT days. PhD student support is discussed, and replacement supervisors are introduced prior to the leave starting to ensure that continuity of provision is maintained.

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

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

The University increased its maternity leave provision on 1st January 2019. The leave provision has increased from 6 weeks full pay to 20 weeks. MCSE provides funding to cover periods of leave. In the case of maternity leave, MCSE seeks to make replacement appointments, with sufficient transition time so that an effective hand-over of duties can be made.

In all instances we aim to ensure that no member of staff is unfairly loaded with additional duties. Very often we have benefited from some flexibility in moving taught modules from one term to another. Over the past 4 years MCSE has moved away from relying on re-distributing duties to existing members of staff, and moved to a policy of recruiting replacement staff.

Staff have flexibility over how KIT days are used and their scheduling, and the extent to which they wish to keep in touch with the Department during the period of leave. KIT days have been used for training or other work activities (such as conference attendance), and to meet PhD students so that the staff member's research programme remains supported during their leave, but take-up is low (see Tables 5.24-25).

The AS Focus Groups indicated that some staff felt a lack of support for those taking leave, and poor understanding of the impact that it can have on career progression, including on research outputs and grant applications. Both fathers and mothers stated that they were made to feel uncomfortable after taking leave, in particular for child care responsibilities, for example when they were unable to make early or late meetings. Respondents also reported a lack of consideration of the effect that having a family has on the ability to work additional hours.

- Action 6.4: (a) Send triannual email communication to all staff about options and support provided by City's/School's policy (e.g. childcare funds for attending conferences, during KIT days, etc.) involving flexible working (both formal and informal arrangements); (b) Regularly update publicity materials about flexible working - webpages, Staff Handbook, etc.; (c) Introduce a School policy on Home Working.
- Action 9.3: Ensure that all key School meetings are held in core hours between 10am and 4pm.

(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.

It is expected that members of staff consult with their HoD and HR during KIT days to plan their return to work. Departments have implemented flexible working after return from maternity leave when it has been requested. This may include an altered workload or initial phased reduction in hours. Staff who decide not to return to work are not required to refund any element of maternity pay. Those who return receive additional payments equal to 4 weeks' pay based on the number of hours worked prior to the maternity leave. The payments are spread over the first 4 months after returning to work.

In 2017 the School set up a scheme where those with childcare responsibilities could apply for up to

£250 support to assist with childcare costs when attending research conferences. However the scheme was poorly advertised, and only one person received support in this way; the scheme will now be replaced by a similar new University policy.

A new University policy for research excellent returners has just been approved, and a teaching excellence route is currently being developed. This policy entitles staff whose academic contribution indicates a trajectory of 3* or 4* outputs to take an additional period of leave for one term in order to focus on research.

(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.

The maternity return rate is 100% for academic staff and PS staff over the last five years. However, the small numbers of staff taking maternity leave make data on return rates and retention difficult to interpret.

SILVER APPLICATIONS ONLY

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

(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.

Staff with more than 26 weeks continuous service are eligible to take two weeks of paid paternity leave at full pay, from 1st January 2019. Prior to this City offered one week of full pay and the second at statutory pay.

The uptake of paternity leave is low (Table 5.26). Only [redacted] men took paternity leave in the last five years, and this may be due to the pay provision. [Redacted] women took shared parental leave and [redacted] women took adoption leave.

From January 2019 the University has introduced a revised shared parental leave policy, where the provision will be matched to the maternity leave provision. Additionally where both parents work at City, both, where eligible, may take up to 20 weeks full paid leave, regardless of the amount of statutory leave taken.

- **Action 7.1: (a) Create an information pack on maternity/paternity/adoption/shared parental leave, promote this at an all-staff meeting, and provide to all new starters and appraisers; (b) Introduce mandatory training for line managers on the various leave policies, and ensure that new**

managers receive training within 6 months of starting.

- Action 7.2: (a) Have a departmental mentor for staff taking any form of leave; (b) Ensure that as part of the promotion process, staff taking leave will only be expected to achieve a proportionate level of outputs; (c) Set up MCSE Staff Survey and Focus Groups to review if staff feel better supported in 2 years' time; (d) Introduce an additional return to work interview 6 months after returning to see whether staff felt suitably supported.

(vi) Flexible working

Provide information on the flexible working arrangements available.

The School utilises both formal and informal flexible working arrangements. Formal flexible working is agreed between the HoD and the staff member, including reduced or flexible hours and working from home. However, it is common for academic staff to have informal flexible working without necessarily agreeing this with their HoD.

The AS Survey (Tables 5.29-30) indicates that awareness of the University's flexible working policy is low, and that few staff have formal flexible working arrangements. Women are significantly more likely to have informal working arrangements than men.

Table 5.29: AS Survey results for flexible working - Women

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I am aware of City's flexible working policy		50%		50%		
I have applied for flexible working in the last two years		14%		86%		
I currently have an informal flexible working arrangement		33%		67%		
My manager is supportive of requests for flexible working	44%	14%	11%	8%	8%	14%

Table 5.30: AS Survey results for flexible working - Men

Survey Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
I am aware of City's flexible working policy		34%	2%	64%		
I have applied for flexible working in the last two years		2%	2%	97%		
I currently have an informal flexible working arrangement		20%		80%		
My manager is supportive of requests for flexible working	14%	38%	23%	3%	2%	20%

The majority of staff felt that their line manager was supportive of flexible working. However, when considered by the Department (Table 5.31) there is a considerable variation, suggesting a lack of consistency and the need for a more formal policy.

Table 5.31: AS Survey results for flexible working by Departments

My manager is supportive of requests for flexible working	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	N/A
Engineering	12%	34%	30%	4%	4%	16%
Computer Science	35%	14%	22%	8%	5%	16%
Mathematics	45%	36%	0%	0%	0%	18%

- **Action 7.3:** (a) Send regular triannual email communication to all staff about options and support provided by City's/School's policy (e.g. childcare funds for attending conferences, during KIT days, etc.) involving flexible working (both formal and informal arrangements); (b) Regularly update publicity materials about flexible working - webpages, Staff Handbook, etc.; (c) Introduce a School policy on Home Working.

(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.

Support for staff who transition to full-time work after career breaks varies according to individual cases as decided by the needs of the member of staff, the School, and available resources. MCSE makes efforts to accommodate requests for increases in hours, including a phased transition to full-time hours. If part-time hours were agreed for a fixed-term period and funding is in place to enable return to full-time work then the resumption of full-time hours is straightforward. Where funding is not in place requests are dealt with on a case-by-case basis.

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.

We recognise that to advance gender equality we need commitment and action from all levels of the organisation, particularly those in senior roles, with strong leadership from the Dean. MCSE aims to have a culture that is both collegiate and performance focused, but there are still a number of areas where there is much work to be done. While many of the Athena SWAN principles are already built into our practices (particularly those around improving gender representation and advancing gender equality), there are still obstacles in career development and progression for women, and it is not clear that we fully benefit from the talents of all. As discussed below, the AS Survey consistently found that academic staff were less positive about the culture in MCSE than PS staff.

In the AS Survey there were significant differences on whether MCSE was inclusive, with 78% of women but only 52% of men agreeing. There was also considerable variation across departments (Table 5.32). When asked about gender equality in their own departments (Table 5.33), there was little difference between men and women, but dramatic differences across departments, with Maths being very positive and CS being much more negative. The latter correlates with the results on bullying and harassment (see Section 5.6(ii), where a

related action will be considered).

Table 5.32: AS Survey results for inclusivity

I feel that the School is an inclusive place to work	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Women	31%	47%	8%	6%	6%	3%
Men	14%	38%	14%	21%	6%	6%
Engineering	12%	46%	16%	16%	6%	4%
Computer Science	28%	19%	19%	17%	11%	6%
Mathematics	18%	55%	9%	18%	0%	0%

Table 5.33: AS Survey results for gender equality in Departments

How would you rate Gender Equality in your Department	Very Good	Good	Acceptable	Poor	Very Poor	Don't Know
Women	33%	24%	27%	3%	9%	3%
Men	28%	39%	16%	9%	5%	3%
Engineering	25%	40%	19%	4%	10%	2%
Computer Science	25%	22%	22%	11%	19%	0%
Mathematics	45%	18%	27%	0%	0%	1%

[quantities redacted]

In April 2018 we organised our first Athena SWAN lecture “Bringing about change” given by Carolyn Griffiths, President of the Institute of Mechanical Engineers, with 100 attendees. In December 2018 there was an Athena SWAN and Ada Lovelace Celebration (Figure 5.34) consisting of a School panel discussion on Career Progression of Women in STEM: Challenges and Opportunities, which was a lively event (approximately 60 attendees), and we intend to provide more such events where staff can discuss issues that concern them.

- Action 9.7: (a) Organise an annual Athena SWAN Lecture in the School to inspire students and staff and present model leadership; (b) Ensure this Lecture is included in the School public lecture programme.

Figure 5.34: School panel discussion on Career Progression of Women in STEM



Social events open to all staff are held throughout the year. However only 67% of women and 51% of men (and only 48% of academics) felt that School social events are welcoming to all staff. More generally, communication across MCSE is regarded as poor, with only 64% of women, 47% of men, (and only 44% of academics) agreeing that individual and team successes are celebrated by the School.

Focus Group participants felt there was a lack of information being circulated around MCSE, particularly related to the availability of roles for which they might wish to apply and of policies and schemes (such as mentoring) from which they might benefit. They also felt there was a lack of consistency across the School in the information made available to staff.

- Action 9.2: Develop a School Communications Strategy (through emails, webpages, Staff Handbook, etc.) to ensure that all developments, processes and practices in the School are communicated to staff.
- Action 9.5: (a) Ensure, where possible, social events are scheduled within core hours; (b) Ensure social events scheduled in the evening allow sufficient notice to enable staff to plan their attendance.

Another important aspect of the culture of MCSE is the work-life balance. Once again the results of the AS Survey were poor. Although 70% of women felt that their manager supported them to achieve a work-life balance, only 52% of men agreed, and only 48% of academics. Focus Group members also raised concerns about work-life balance and the expectations on staff, particularly part-time staff or those with caring responsibilities, in terms of what was needed to advance their careers.

- Action 6.1: (c) Ensure work-life balance issues are discussed with all staff, with particular consideration for PT staff and those with caring responsibilities, as part of appraisals; (d) Require appraisers to record on the appraisal form when work-life balance has been considered.

Student representation plays an important role in the structure of the School, however they have not historically been consulted on general issues around the culture of the School or gender equality.

- Action 9.9: (b) Widen representation by including UG and PGT students on the new Equality and Diversity Committee.
- Action 9.10: (a) Add Equality and Diversity item to agendas for all Student Staff Liaison Committees and the School Student Experience Committee; (b) Organise a student focus group to identify current issues, using the existing student societies to encourage engagement.

(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 MCSE HR Manager supports HoDs and staff in procedural and practical requirements when implementing policies. Policies are almost all set at the University level, with few local policies owned by the School itself. All new policies undergo an Equality Impact Assessment and policies are reviewed every 2 years for their effectiveness. These policies are communicated to all staff via the University Staff Hub on the internal intranet; in the AS Survey 78% of women and 80% of men were aware of this.

In the AS Survey (Tables 5.35-5.36) [redacted] women (14%) and 13 men (20%), together with an additional 10 who preferred not to record their gender said that they had been bullied or harassed during the last year. 11 women (31%) and 25 men (39%) and 12 who preferred not to record their gender said that they had witnessed bullying or harassment during the last year. By Department, CS has a very high reported rate of bullying or harassment, both experienced and witnessed.

Table 5.35: AS Survey – Bullying and Harassment 1

In the last year I have been bullied/harassed at City	Yes	No	Don't Know	Prefer not to say
Women	14%	83%	0%	3%
Men	20%	73%	3%	3%
Engineering	16%	76%	2%	6%
Computer Science	35%	62%	3%	0%
Maths	18%	73%	0%	9%

Table 5.36: AS Survey – Bullying and Harassment 2

In the last year I have witnessed bullying/harassment at City	Yes	No	Don't Know	Prefer not to say
Women	31%	61%	6%	3%
Men	39%	55%	6%	0%
Engineering	34%	56%	8%	2%
Computer Science	46%	46%	5%	3%
Maths	27%	64%	0%	9%

[quantities redacted]

- Action 10.1: (a) Make Dignity at Work, Unconscious Bias, and Active Bystander training compulsory for all managers in the first instance, and then for all staff, prioritising Computer Science; (d) Provide training on Manager skills and HR processes, so that staff and managers understand the various processes involved as well as different management styles.

In Table 5.37 are recorded the various actions taken due to bullying or harassment. A high proportion of respondents took no action, and very few made a formal or informal complaint. Of those who made a complaint, none felt that it was dealt with effectively.

- Action 10.1: (b) Raise awareness of the Harassment Advisor Scheme; (c) Communicate procedures for reporting bullying and harassment to all staff.

Table 5.37: Actions taken due to Bullying or Harassment

	Women	Men	Not recorded	Total
Nothing	[redacted]	[redacted]	[redacted]	15
Spoke to a City Harassment Advisor	[redacted]	[redacted]	[redacted]	[redacted]
Made an informal complaint	[redacted]	[redacted]	[redacted]	[redacted]
Made a formal complaint	[redacted]	[redacted]	[redacted]	[redacted]
Tried to resolve the matter	[redacted]	[redacted]	[redacted]	12
Other	[redacted]	[redacted]	[redacted]	10

The AS Focus Group reported a lack of awareness of policies and participants felt that more could be done to communicate relevant policies and procedures to staff, such as around maternity leave and flexible working.

The University AS Action Plan included actions to review relevant policies relating to Equality and Diversity, and a number of new and revised policies have or are being developed. It is important that these are clearly communicated to all staff.

- Action 9.2: Develop a School Communications Strategy (through emails, webpages, Staff Handbook, etc.) to ensure that all developments, processes and practices in the School are communicated to staff.

(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.

Committee membership is reviewed annually, typically at the first meeting of the year. Membership and terms of reference of certain major committees (e.g. Board of Studies) is determined by standard roles in accordance with academic governance laid down by University Senate Regulations. This results in a core membership usually derived from staff from the Senior Management Team (e.g., the Dean, ADs, or HoDs) and other senior staff from the Departments (e.g., Programme Directors) plus elected or co-opted members.

The staff membership of School Committees is given in Figures 5.38-39. There is a reasonable (given the proportion of women in the School) representation of women on almost all of the School's most influential committees: Executive (29% women); Board of Studies (22% women); Learning and Teaching (34% women); Programme Review and Approval (42% women) – but not Research (9% women). Of the remaining committees, Ethics, which was newly formed in 2017/18, does not have any women members.

- **Action 9.4:** (a) Introduce an annual review of committee membership for gender proportion; (b) Ensure gender proportionality in all committees/panels, especially in Research and Ethics Committees, revising, if needed, relevant terms of reference; (c) Regularly consider rationalising the committee structure where possible to avoid 'committee overload' for members.

Figure 5.38: School Committees 1

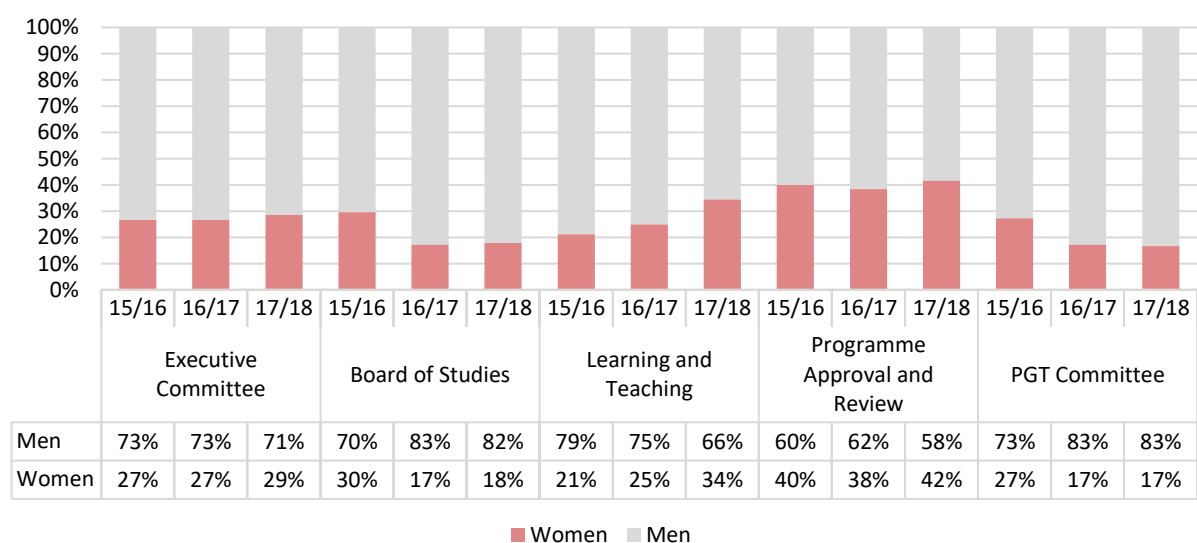
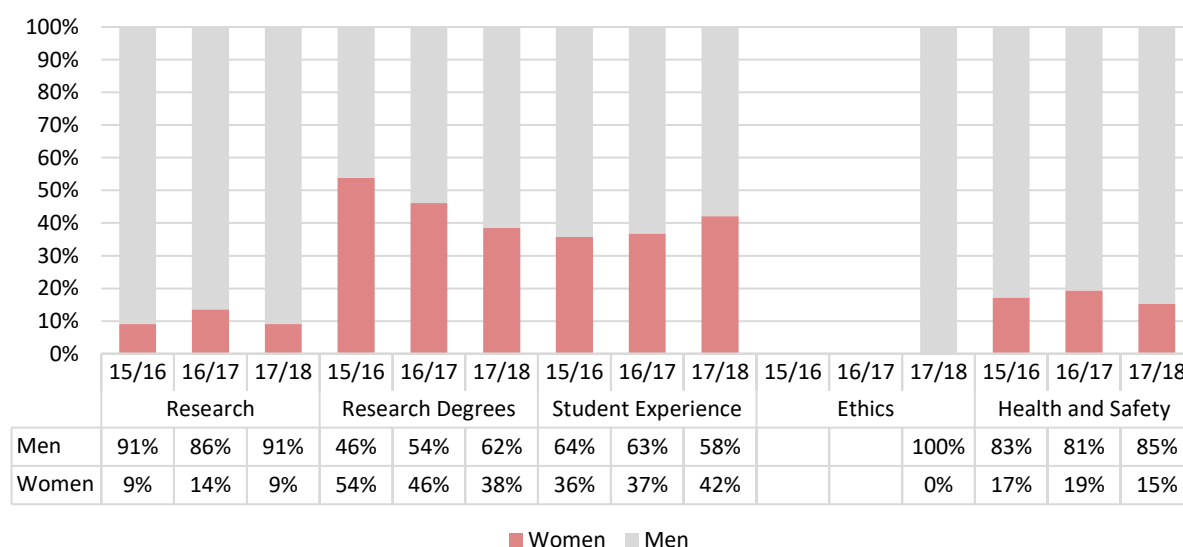


Figure 5.39: School Committees 2



In the AS Survey, men and women broadly agree about the fair distribution of committee work between men and women (Table 5.40). However, as elsewhere in Section 5, CS were significantly more negative.

[quantities redacted]

Table 5.40: AS Survey results for committee work

There is a fair distribution of workload associated with committee work between men and women in my School	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Women	17%	23%	14%	9%	6%	31%
Men	8%	38%	22%	9%	5%	19%
Engineering	6%	36%	24%	12%	2%	20%
Computer Science	17%	19%	25%	11%	14%	14%
Mathematics	9%	45%	27%	0%	0%	18%

[quantities redacted]

One action from the University AS submission was that where possible all University committees will consist of at least 30% women and 30% men, and representation of other protected groups will be actively considered. This is a challenge in MCSE, as concerns have also been raised that a target of gender balance within committees has led, given the proportion of women academics in the School, to women being asked to sit on more committees, causing increased workload. Until the staff profile includes at least 30% women, it will be difficult to meet the University target without potentially overloading some staff.

One HoD has been the School's E&D representative. As of 1st January 2018 the Head of Student and Academic Services has taken over that role, who attends all MCSE ExCo meetings. The former representative had been present at most School Promotion Panels. To ensure representation on ED&I matters, the new representative will be a member of all future promotion panels.

School staff also take part in many University committees. Some of these are a function of their role, particular for members of the Deanery, but staff are also nominated or invited to serve on a variety of committees and working groups without an associated formal role. Currently such membership is considered only when promotion panels are looking for evidence of contribution to the wider leadership, and not as part of the contribution model. As some such contributions are organised directly between the member of staff and the relevant University committee, there are no comprehensive records kept of which staff currently participate in this way.

- **Action 11.3: Ensure that committee membership is discussed and recorded as part of appraisals.**

(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?

School staff participate in a range of influential external committees. This is the case across academic, research and PS staff. For example, academic staff sit on the boards of professional organisations such as IEEE, IMechE, RAeS and ACM. Membership of such committees is regarded as evidence of esteem when considering promotion applications, particularly at the Reader and Professor levels. There are currently no formal procedures for encouraging staff to participate in such committees, but they can arise as part of appraisal discussions. However in the AS Survey only 28% of women and 33% of men felt that such activities are valued by the School.

- **Action 11.3: Ensure that committee membership is discussed and recorded as part of appraisals.**

(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.

The current MCSE contribution model was designed in 2017 by the then HoDs. The model was intended to provide a uniform and transparent measure of staff contribution across the School, while being flexible enough to fit the requirements of the different disciplines.

The model contains three types of activity: teaching, research, and administration. In the model, the credits are awarded in each category. For teaching, there is a simple formula for each taught module which depends on the number of lecture hours, the number of students, whether marking support is provided, and whether the module is new, new to the lecturer, or neither. Practical labs had a separate credit allocation. Personal tutors also get an allocation of credits, as do project tutors for UG and PGT projects.

For research, all staff with a teaching and research role type get a fixed allocation of credits together with an additional allocation proportional to their ARQM score (see Section 5.1(iv)). Credits are also allocated for PhD students supervised and research grant income.

For administration, all staff get a basic allocation of credits which are intended to account for general low-level administrative activity including committee membership – this was designed to try to avoid a negative “bean-counting” culture and to allow for flexibility with small duties which arise mid-year. There was also a scale of allocations for more significant roles ranging from seminar organiser to HoD (and including membership of the SAT) which were intended to be broadly fixed across the School.

For part-time staff scores are scaled proportionately.

The model does not capture external contributions such as committees or membership of editorial boards, and does not capture committee membership except in the basic credit allocation for administration. The rationale for the latter was that most staff with significant committee loads have them as part of a larger role. Both of these points were raised by staff during consultations on the model, and may be revisited in the future.

The intention with the model was that staff in each department would be informed of their own credit score and the anonymised range of scores (or rank order of scores) for the rest of the department. Some scores are retrospective (such as ARQM) and others are current, so the model was intended not to lead to complete uniformity each year but rather as a tool to be able to adjust loads that become out of line. Issues around expectations are addressed in the School’s contribution model and the School’s promotion thresholds.

Unfortunately, shortly after the model was designed, a majority of the HoDs changed roles. Although the model had been presented to staff it had not yet been rolled out, and the new HoDs did not introduce this. Thus the model is currently only fully operational in Mathematics, where it is used to inform allocation of teaching and reviewed in the annual appraisal meeting. Membership of the SAT was allocated credits in Maths, but in the absence of an operational model was not formally recognised in other departments.

The lack of a consistent model across the School is reflected in the AS Survey results. Men are less likely than women to agree that tasks are allocated transparently (Table 5.41), and CS and particularly Engineering are significantly more likely to disagree than Maths. There are similar (but slightly less pronounced) results for the fairness of task allocation (Table 5.42). However, only 6% of women and 8% of men thought that work was not allocated fairly irrespective of gender (although this rose to 16% in CS).

Several of our proposed actions (1.3a, 1.5b, 9.4b) would, if poorly implemented, have the potential to disproportionately impact on women’s workloads. Thus it is essential that there is a robust and comprehensive workload model underpinning the distribution of responsibilities across the School.

Table 5.41: AS Survey results for transparency of task allocation

The way tasks are allocated in the School is transparent (eg School workload, contribution model or other)	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Women	8%	39%	14%	17%	14%	8%
Men	5%	22%	23%	28%	9%	13%
Engineering	0%	18%	26%	30%	18%	8%
Computer Science	11%	27%	19%	19%	19%	5%
Mathematics	9%	27%	18%	27%	0%	18%

Table 5.42: AS Survey results for fairness of task allocation

The way tasks are allocated in the School is fair	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Don't Know
Women	8%	28%	25%	14%	11%	14%
Men	5%	28%	25%	22%	8%	13%
Engineering	0%	24%	28%	24%	14%	10%
Computer Science	11%	24%	19%	22%	16%	8%
Mathematics	9%	27%	18%	27%	0% (0)	18%

- Action 6.3: (a) Ensure workload activity records are discussed with staff in appraisals and recorded on the appraisal form; (b) Provide staff with contextual information when discussing the workload allocation model, such as the average load for their department.
- Action 11.1: (a) Ensure that the School workload model is operational across all parts of the School; (b) Review workload model taking into account feedback from staff, including consideration of whether outreach activities or committee membership should be included, together with an Equality Impact Assessment.

Workload allocation takes account of requests that enable staff to undertake childcare duties. In addition, the workload distribution has paid attention to staff who have other caring responsibilities (for example, elderly parents). There is no formal monitoring of gender bias for the model, but this will be considered in the future.

- Action 5.3: (b) Make Inclusive Leadership training (which includes unconscious bias training) compulsory for all line managers.
- Action 11.1: (b) Review workload model taking into account feedback from staff, including consideration of whether outreach activities or committee membership should be included, together with an Equality Impact Assessment.

Significant roles associated with a responsibility allowance (such as HoD, Programme Director, or Admissions Tutor) have in the past not always been advertised to all relevant staff, and their renewal has been automatic except when the holder wishes to step down. This lacks transparency and also reduces opportunities for junior staff to gain experience.

- Action 11.2: (a) Advertise all roles with a responsibility allowance to all staff who are eligible to apply; (b) Ensure roles with a responsibility allowance are for a fixed term and not subject to automatic renewal.

(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.

The AS Survey indicated that 33% of academic staff (21% of women, 38% of men) agreed committee meetings were completed in core hours (10am to 4pm) to enable those with caring responsibilities (such as for children under 16, elderly parents, or adults with a disability) to attend. Most School meetings and seminars are already scheduled within core hours, however there is no formal policy in place to ensure this is the norm.

Some School social events are organised during core hours, but again there is no formal policy to ensure that this is the norm.

- Action 9.3: Ensure that all key School meetings are held in core hours between 10am and 4pm.
- Action 9.5: (a) Ensure, where possible, that social events are scheduled within core hours; (b) Ensure that social events scheduled in the evening allow sufficient notice to enable staff to plan their attendance.

(vii) Visibility of role models

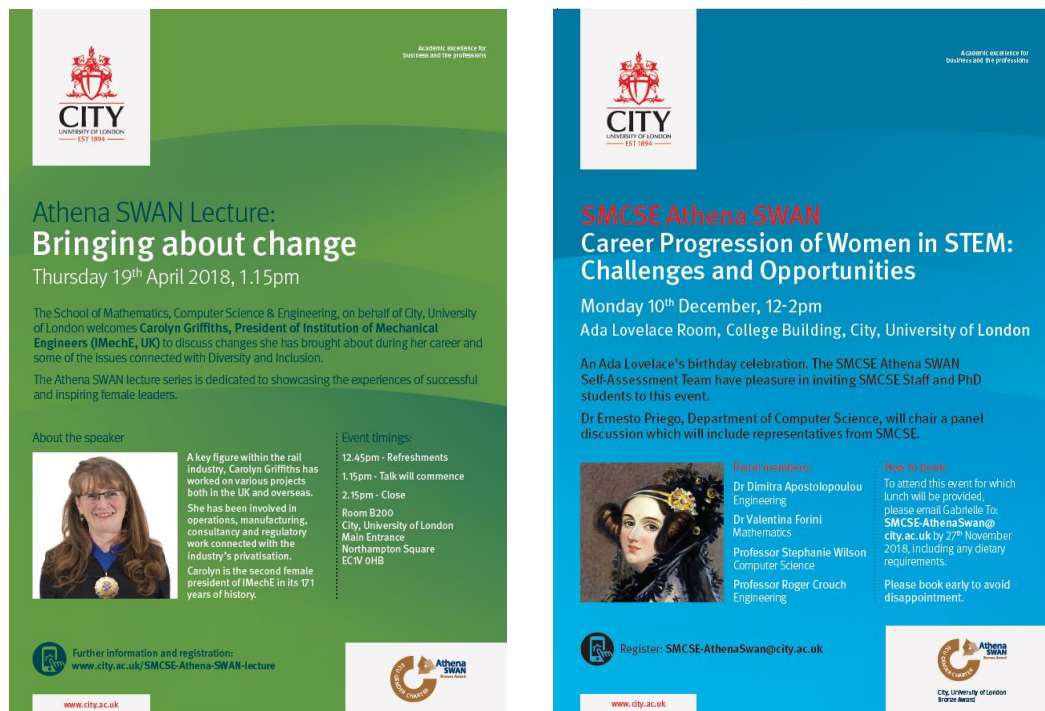
Describe how the institution builds gender equality into organisation of events. Comment on the gender balance of speakers and chairpersons in seminars, workshops and other relevant activities. Comment on publicity materials, including the department's website and images used.

The School endeavours to actively promote all of our disciplines to women. All images and videos produced by Marketing and Communications (such as for webpages, UG/PG prospectus, Nuffield summer research projects) are reviewed to ensure consideration is given to diversity in publicity materials. The School also holds high profile events such as Clerkenwell Design Week 2017, where we introduced 7 highly successful graduate women engineers from leading London consultancies to two local primary schools and undertook team-based design exercises.

Other activities have included: (i) naming our recently refurbished CS communal area after Ada Lovelace and holding an Ada Lovelace 'Women in STEM' seminar in 2016 and 2018; (ii) regularly reporting on research breakthroughs (on our webpages, and through the University social media and email newsletters) from leading women within the School (such as Professor Tong Sun's work on advanced sensors used in train pantographs); (iii) involving leading women engineers (such as Jane Wernick, who was a principal structural engineer responsible for the design of the London Eye) in our videos promoting the new unified UG engineering degrees; (iv) inviting secondary school Headteachers at girls-only schools to the annual Rector's dinner and thereby establishing key connections to a pool of talented young women interested in STEM subjects.

The School organises an annual high-profile event as part of the Edwards lecture series. However in the past 5 years only one of the five speakers has been a woman. The School also nominates senior figures for honorary degrees; in the past 5 years 2 of the 9 nominees have been women. In April 2018, Carolyn Griffiths, President of the Institution of Mechanical Engineers, gave the first Athena SWAN lecture for the School (Figure 5.43).

Figure 5.43: Posters of Athena SWAN events in MCSE



Individual Departments and Research Centres also run various series of seminars and workshops, and have hosted a number of national and international conferences; however, the makeup of speakers and panels for such events has not been recorded, and there is not currently any policy about considering the gender balance of speakers at such events.

The AS Survey showed that only 46% of academic staff (28% of women; 53% of men) thought the School utilised women as visible role models, for example at staff inductions, graduation, or recruitment events.

- **Action 9.6: (a) Data about the gender composition of events will be recorded annually, both at the School, Department, and Research Centre level, and reviewed by the EDC; (b) Each seminar or event series to consider gender proportionality when planning their events.**

(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.

The AS Survey indicated that 44% of academics (43% women, 42% men) were involved in outreach activities and 69% of staff would like to take part in outreach/engagement activities (64% women, 71% men).

MCSE is involved in a variety of different types of outreach and engagement events. The primary such events are schools visits; details of the participation in these have only been formally recorded for the last two academic years, and are given in Tables 5.44 and 5.45. The percentage of women participating is broadly in line with the overall makeup of the School, while it is noticeable that Professors are (proportionately) significantly more likely to participate in a School visit than non-Professors. All subjects also participate in University of London taster day sessions which occur in the University and are very popular.

Table 5.44: School visits by gender

	Women	Men	% Women	% Men
2016/17	[redacted]	[redacted]	23%	67%
2017/18	[redacted]	[redacted]	18%	82%

Table 5.45: School visits by grade

	Lecturer/Senior Lecturer/Reader	Professor	% Lecturer/Senior Lecturer/Reader	% Professor
2016/17	22	17	56%	44%
2017/18	28	17	62%	38%

Outreach work is not currently included in the School contribution model, except as part of the basic allocation of credits for general administration.

Much of our outreach and engagement work relies on input from Student Ambassadors. In 2016/17 the University's Student Ambassador cohort was 84% women, 16% men. Women in MCSE are underrepresented in relation to the gender balance of the scheme as a whole but MCSE is the one School which is the closest to a 50:50 gender balance.

- **Action 11.4: (a) Ensure that outreach activities are discussed and recorded as part of appraisals; (b) Create a comprehensive School register of staff and students (ambassadors), including their gender make-up, involved in outreach activities, reviewed annually.**

Section 5	
Actual word count	6472 (includes 230 discipline specific analysis) (This excludes headings, sub-headings, tables, graphs and references to action points.)
Recommended word count	6000

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.

7. FURTHER INFORMATION

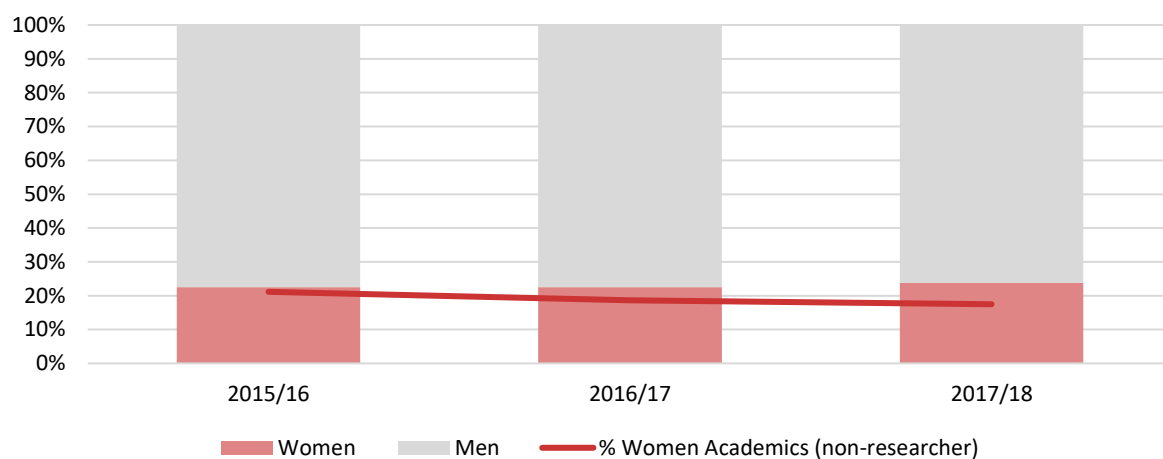
Recommended word count: Bronze: 500 words | Silver: 500 words

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

In this application we have considered the proportions of men and women across the different grades. To a certain extent this is a proxy for the gender pay gap, which for basic pay was 6.1% in the School in 2015/16, rising to 7.5% in 2016/17. However, for total pay the gender pay gap was 6.9% in 2015/16, rising to 9.2% in 2016/17. This suggests that there is a further problem with the distribution of responsibility allowances (RAs) across the School. In Figure 7.1 we see the distribution of RAs across the School compared to the proportion of academic staff who are not on research-only contracts, which indicates that women are not under-represented among staff receiving an RA. This suggests that the problem may be with the lack of women in senior roles in the School where the RA is much higher.

- Action 11.2: (a) Advertise all roles with a responsibility allowance to all staff who are eligible to apply; (b) Ensure roles with a responsibility allowance are for a fixed term and not subject to automatic renewal.

Figure 7.1: Holders of a responsibility allowance



[quantities redacted]

Section 7	
Actual word count	141 (This excludes headings, sub-headings, tables, graphs and references to action points.)
Recommended word count	500

8. ACTION PLAN

Please see attached table of actions.



This guide was published in May 2015. ©Equality Challenge Unit May 2015.

Athena SWAN is a community trademark registered to Equality Challenge Unit: 011132057.

Information contained in this publication is for the use of Athena SWAN Charter member institutions only. Use of this publication and its contents for any other purpose, including copying information in whole or in part, is prohibited. Alternative formats are available: pubs@ecu.ac.uk