



## Department Application Gold Award

The Cavendish Laboratory  
Physics Department  
University of Cambridge.



## 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.

Gold Department application	
<b>Word limit</b>	<b>13,000</b>
<i>Recommended word count</i>	
1. Letter of endorsement	500
2. Description of the department	500
3. Self-assessment process	1,000
4. Picture of the department	2,000
5. Supporting and advancing women's careers	7,000
6. Case studies	1,500
7. Further information	500

<b>Name of institution</b>	University of Cambridge	
<b>Department</b>	Department of Physics	
<b>Focus of department</b>	STEMM	
<b>Date of Gold application</b>	November 2013	
<b>Date of current award</b>	May 2014	2018 Resubmission
<b>Institution Athena SWAN award</b>	Date: April 2014	Level: Silver
<b>Contact for application</b> <small>Must be based in the department</small>	Dr. Tina Potter	
<b>Email</b>	cp594@cam.ac.uk	
<b>Telephone</b>	01223 337475	
<b>Departmental website</b>	<a href="https://www.phy.cam.ac.uk">https://www.phy.cam.ac.uk</a>	

## GLOSSARY

<b>AS</b>	Athena SWAN
<b>BA</b>	Bachelor of Arts (3 year degree in Physics)
<b>BME</b>	Black and Minority Ethnic
<b>CDT</b>	Centre for Doctoral Training (EPSRC or STFC funded)
<b>CiW</b>	Cavendish Inspiring Women
<b>DA</b>	Departmental Administrator
<b>DHoD</b>	Deputy Head of Department
<b>DUT</b>	Director of Undergraduate Teaching
<b>EPSRC</b>	Engineering and Physical Sciences Research Council
<b>ED&amp;I</b>	Equality, Diversity and Inclusion
<b>ERC</b>	European Research Council
<b>HoD</b>	Head of Department
<b>HR</b>	Human Resources
<b>IoP</b>	Institute of Physics
<b>IT</b>	Information Technology
<b>KIT</b>	Keeping in Touch
<b>MASt</b>	Masters degree (for external postgraduate students, equivalent to MSci)
<b>MPhil</b>	Master of Philosophy (1 year degree by research)
<b>MSci</b>	Master of Science (4 <sup>th</sup> year of Physics degree)
<b>NatSci</b>	Natural Sciences undergraduate course
<b>NSAA</b>	Natural Science Admissions Assessment
<b>PhD</b>	Doctor of Philosophy (3-4 year degree by research)
<b>PDRA</b>	Postdoctoral Research Associate
<b>PI</b>	Principal Investigator
<b>PRA</b>	Principal Research Associate
<b>PSS</b>	Professional Support Staff
<b>RA</b>	Research Associate
<b>RAE</b>	Research Assessment Exercise
<b>REF</b>	Research Excellence Framework
<b>SAP</b>	Senior Academic Promotions
<b>SAT</b>	Athena SWAN Self-Assessment Team
<b>School</b>	School of Physical Sciences
<b>SRA</b>	Senior Research Associate
<b>SRD</b>	Staff Review and Development
<b>STEMM</b>	Science, Technology, Engineering, Mathematics and Medicine
<b>STFC</b>	Science, Technology and Facilities Council
<b>WiSETi</b>	Women in Science Engineering and Technology initiative

## 1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT

**Recommended word count: 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.

Ruth Gilligan  
Athena SWAN Manager and Panel,  
Athena SWAN Charter,  
Equality Challenge Unit,  
First Floor, Westminster Tower,  
3 Albert Embankment,  
London SE1 7SP

10 December 2019

Dear Ruth and Panel,

I took over from the late Professor James Stirling as Head of the Cavendish over 6 years ago. He led the Department up to our successful Athena SWAN Gold application in 2013. I saw an enormous change in the Department during his time, which has continued to this day. As the father of two daughters, married to fellow woman academic, I feel personally that gender bias must be eliminated. Having worked in gender-balanced teams, at times with a woman lead, I have also seen how subtle changes in practice can improve the atmosphere and the prospects for female scientists. I have therefore tried, during my time as Head of Department, to carry on the work which Prof Stirling started, and to go further in delivering a truly gender-balanced Department, as well as tackling issues around other minority groups. We have also worked hard to spread good practice in the University and beyond. In one example, we have commissioned an artist to produce videos of female scientists from across the country, talking about their lives, their careers and their work. We will make these available for free to schools other outlets, in order to show aspirational role models and change the image of female scientists.

The information presented in the application (including qualitative and quantitative data) is an honest, accurate and true representation of the department. Since this is a resubmission, we have not attempted to rewrite every aspect of our last report. Instead we have updated our last submission, addressing the concerns which the panel raised. I felt that the criticism that we had not presented evidence of long term impact was difficult to understand. Within the Department, we have made 22 hiring decisions for academic staff, all at lecturer level, during the last 5 years and 10 women have been appointed. The increasing representation of women throughout our teaching and research activities has been mirrored by a change in culture at every level. Our first gender champion, Professor Dame Athene Donald, has been enormously influential across the UK and beyond, and was recently awarded the THE Lifetime Achievement award for her work. Our second, Professor Valerie Gibson, is now the University Gender Equality champion, and has taken our best practice to other Departments, challenging them to reach the same high standards. She is also very active on the national and international scene. They are both beacons of excellent and exceptionally influential in producing change. Our current lead is Dr Tina Potter, a recently appointed lecturer. She has an outstanding record on gender equality issues, and has progressed from post-doctoral researcher to Faculty while caring for a young family. I am also working to help the next generation of academic leads by acting as a lecturer in the University Senior Leadership training programme, focusing on the management of change.

We have been able to support several of our recent female appointments through maternity leave, with arrangements to support their research teams, and personal awards from our returning carers' scheme. We have seen a pleasing increase in men taking parental leave as well.

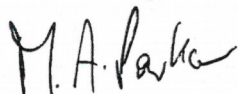
We have now completed an overhaul of our administrative processes, ensuring that equality and diversity is embedded at every level. E&D training is mandatory at induction, and all line managers have been trained in how to deliver our expectations on staff progression. This is particularly important for our Research Staff, who are often employed on short-term contracts, and need advice on how to progress within the University or beyond. The outcomes of this work are monitored by high-level management reports as well as by staff satisfaction surveys.

We are now preparing to move the Department to our new home, the Ray Dolby Centre, which is currently under construction. This building has been designed with the explicit purpose of creating a more open and sociable environment, with attractive well-lit spaces, and uniform provision of offices and social space for all. It includes a family-friendly public wing, with a common room where staff will be able to meet their families, as well as provision for nursing mothers and those with young children. We are grouping our equipment into large shared facilities, with integrated technical teams in support. This will enable all staff to make use of the most advanced techniques, rather than particular investigators being gatekeepers, controlling access to equipment and expert technicians. It will also create new opportunities for collaboration and interdisciplinary work. I am convinced that these social measures will have a huge positive impact for all of our staff, and particularly women facing the difficult career stage where promotion and parenthood coincide.

I am particularly proud of our Cavendish Inspiring Women team, our student-led initiative, supported by Departmental funding. I meet with them regularly, and they have an open door to myself and the management team if they have concerns. They make use of this both with long-term issues and urgent cases. They are very effective as "reverse mentors", enabling me to see how the Department and its policies appear to the students and research staff. Among their many activities, they have organised women network forums, helped undergraduate students find sympathetic supervision partners, and assisted our "Breaking the Silence" initiative on sexual harassment. They take the lead on LGBTQ+ issues and are now looking into support for BAME staff. They reach out to other Departments in the University and are now working at national level, hoping to attract a women in physics conference to the Cavendish. I am delighted to have the opportunity to work with them, and I feel that our future is in good hands as these inspirational young women progress in their careers.

We were disappointed that our last submission did not produce a Gold renewal. We hope that we have addressed the concerns of the panel in this resubmission. Whatever the outcome, our commitment to equality and diversity is unshakeable, and our efforts will continue. I hope that the Panel will find that our Gold status is fully deserved.

Yours sincerely,



Professor M. A. Parker  
Head of Department

-  
**Total word count: 996 words**

**From:** Athena Swan Athena.Swan@advance-he.ac.uk  
**Subject:** RE: Cambridge Physics Gold Application  
**Date:** 18 May 2018 at 09:49  
**To:** Val Gibson gibson@hep.phy.cam.ac.uk, athenaswan@ecu.ac.uk  
**Cc:** Physics HoD hod@phy.cam.ac.uk, Sam Stokes departmental.administrator@phy.cam.ac.uk



Dear Val,

We are able to offer an additional 500 words to be used to explain the departmental restructure.

We hope this helps with the finalisation of the application.

Best wishes,  
Eleanor

Eleanor McDavis  
Equality Charters Officer

E eleanor.mcdavis@advance-he.ac.uk  
T +44 (0)20 3870 6014

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3 Albert Embankment, London, SE1 7SP

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-----Original Message-----

From: Val Gibson [mailto:gibson@hep.phy.cam.ac.uk]  
Sent: 18 May 2018 08:56  
To: athenaswan@ecu.ac.uk  
Cc: Val Gibson <gibson@hep.phy.cam.ac.uk>; <hod@phy.cam.ac.uk> Physics HoD <hod@phy.cam.ac.uk>; Sam Stokes <departmental.administrator@phy.cam.ac.uk>  
Subject: Cambridge Physics Gold Application

Dear Ruth and James,

I hope you are both well? I am about to submit the Cambridge Physics Gold application. However, I am having difficulty fitting within the word limit. So much has happened over the past 4 years (a whole departmental restructure, a new Cavendish is being built, many new initiatives etc) that it is difficult to fit within the 13000 words. I am currently at about 14000 words, and if I start cutting more, you will lose significant information. I have also spent several days already trying to cut the text down.

Is there anyway you can give us some leeway on the word count?

Best wishes, Val

## 2. DESCRIPTION OF THE DEPARTMENT

**Recommended word count: 500 word**

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 Cavendish Laboratory is the largest Physics department in the UK (2014 REF return) and the 2<sup>nd</sup> largest department in Cambridge. It is one of 8 departments within the School of Physical Sciences (the School). Based in West Cambridge, the estate is shown in Figure 2.1. In 2016, the site was expanded with the opening of the Maxwell Centre, home to the Maxwell Programme, and focus of the University's industrial engagement with the physical sciences. Most recently, a £300m project to construct a completely new home for the Department, "Cavendish III", has been given planning permission, and has work-life balance at the very heart of its design, with state-of-the-art family-friendly facilities, a central family area, high-chairs, baby-changing facilities, and cycle-racks for family bikes. The Department will continue to champion the needs of staff and students as the building is realised in 2021/22 under strict financial constraint (**Action E.1**).

*"The Maxwell Centre is a great place to bring together researchers from industry and academia. It offers a comfortable environment to work and buzzes with activity."*

**Principal Research Scientist (woman), National Physics Laboratory**

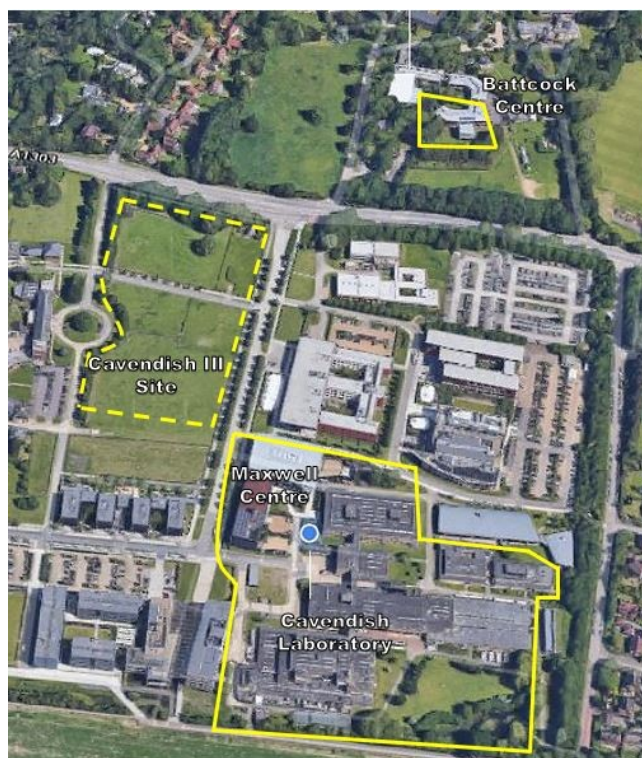


Figure 2.1: The Cavendish Laboratory estate (2018) and the site of 'Cavendish III'.

**Action E.1:** Ensure that the needs of staff and students are met in the development of Cavendish III by requiring that the family-friendly facilities are retained as the building is realised under strict financial constraint.

In the Department, Physics is researched and taught to its widest possible definition, covering astronomy, theory, experimental condensed matter, high energy physics, as well as many interdisciplinary fields, such as biomedical physics and engineering.

The Department is an international community and home to ~1300 staff and students who study and work here. The University recognises four categories of staff: Academic (contracted for teaching and research), Research (postdoctoral and research fellows), Academic-related (senior professional support), and Assistant (junior professional support). Academic-related and Assistant staff are collectively referred to as Professional Support Staff (PSS). A breakdown of the number of staff and students in each category is shown in Table 2.1.

**Table 2.1: Department staff and students by category in 2019.**

Staff			Students		
	Count (% total)	% women		Count (% total)	% women
Academic	60 (15%)	18%	Undergraduates	788 (88%)	24%
Academic-related	46 (11%)	41%	Postgraduate Research	83 (9%)	23%
Assistant	108 (26%)	36%	Postgraduate Taught	14 (2%)	7%
Research	199 (48%)	26%	Centre for Doctoral Training	10 (1%)	40%
<b>Total</b>	<b>413</b>	<b>29%</b>	<b>Total</b>	<b>895</b>	<b>24%</b>

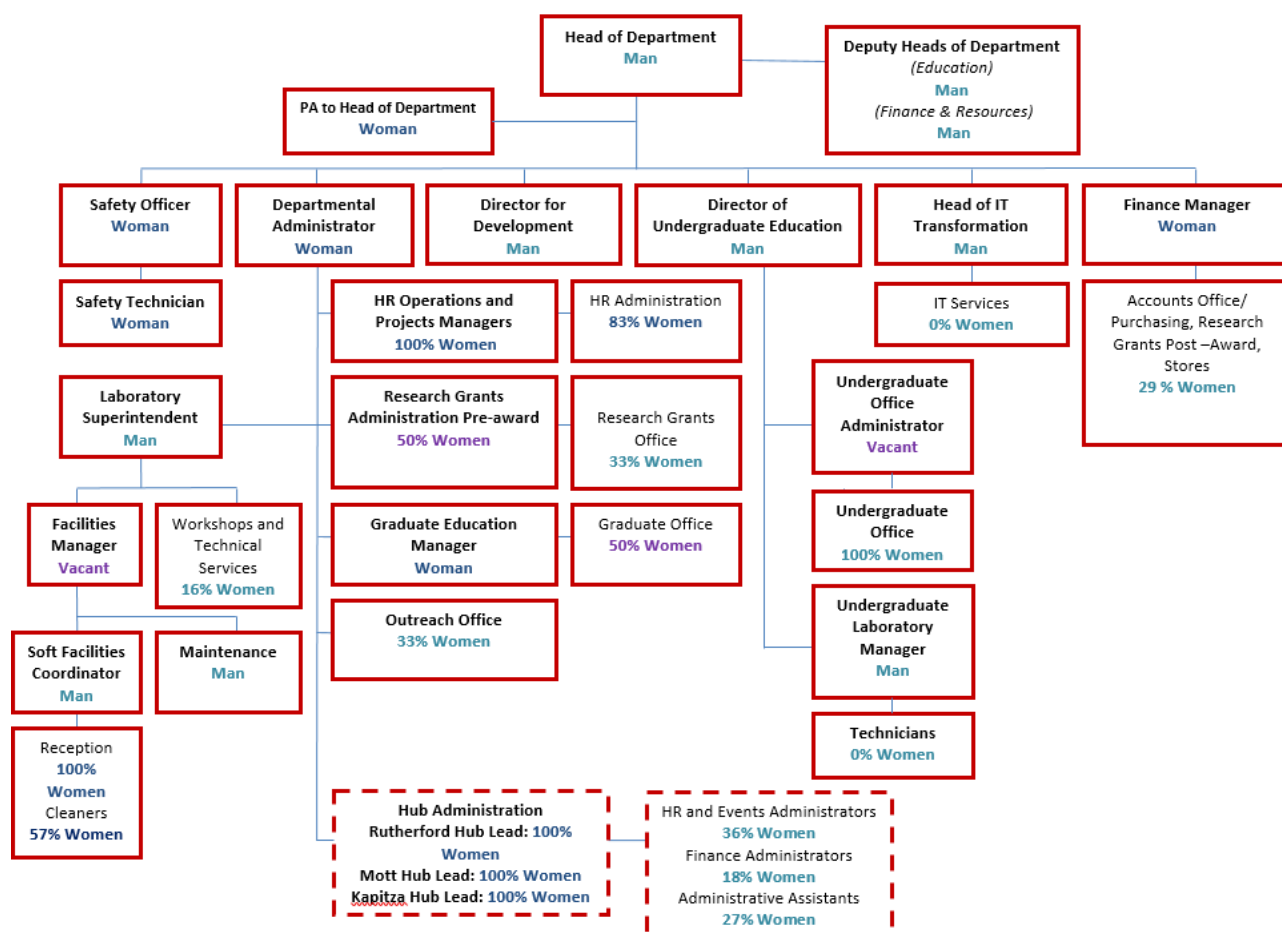
The Head of Department (HoD), Andy Parker was appointed in 2013 and leads ED&I work within the Department and University. He has just been reappointed until 2022, ensuring continuity in leadership. The University is currently undertaking a review of the HoD role, with major input from key people in the Department (**Action H.1**), to make the job more accessible to senior women academics, and to establish ED&I as a key priority alongside teaching and research.

*"The [HoD] respects people; all grades of people. He's the first HoD I've known who talks to the maintenance people, the workshops, and the cleaners. He makes an effort to do that and understands these people."*

**Academic-related staff [woman]**

**Action H.1:** Participate in the University review of the HoD role to attract senior women into the role.

The HoD is supported by a senior Departmental Administrator (DA, woman) and appoints deputies and committee Chairs to delegate responsibilities. There are two Deputy Heads (both men) and 8 core departmental committees (25% women Chairs). The organisational chart is shown in Figure 2.2.



**Figure 2.2: Departmental organisational chart.**

The Department has changed dramatically since 2014 in order to:

- accommodate an increase in staff (7% Academic, 18% Research) and students (22% undergraduate and 12% postgraduate);
- further embed good practice within policies and procedures;
- provide a clear career pathway for all staff;
- clarify the line-management of staff and supervision of students; and
- consolidate technical support as we prepare to move to Cavendish III and become a National Facility, open to visitors who wish to use our equipment.

The re-organisation included administration, teaching, Information Technology (IT) and outreach, and will include technical services in the near future. The central administration team was expanded and local administrators were clustered into 3 hubs (one for each main building), with specialised roles that offer career advancement possibilities, especially for women PSS. While the transition caused

*"I was employed as a Grade 4 administrator 6 months ago. Working in a hub, I can be trained and easily see my next career step."*  
**Assistant staff (woman)**

interruptions, the new system is more robust and consistent, and offers a platform for monitoring and delivering cultural changes required to meet our ED&I ambition.

Many of our women Academics are early-career and expressed a desire to participate more in the Department's organisation, which also led to significant changes:

- the Senior Management Group (1 woman, 5 men) that advised the HoD was replaced by the Cavendish Board (6 women, 8 men), consisting of ex-officio and elected members (2 early-career and 2 senior staff), with the HoD co-opting to balance across gender and other considerations;
- previously, research areas were identified as belonging to a Research Group. The Head of Group was used as de facto part of the management, line-managing technical staff and administrators and acting as spokesperson for PIs. The basic unit of research is now the independent PI and a training programme is in place for HR and Line Management responsibilities. Many PIs still form larger groupings, based around e.g. shared scientific interests, common grants and equipment needs; and
- the Heads of Group meetings were replaced by "All Faculty" meetings to improve communications.

Snapshots of women in the Department in 2019 are shown in Figures 2.3 and 2.4. Figure 2.3 shows all educational and academic stages, from Year 1 undergraduates through to Professors, and is compared to our 2013 AS Gold application. The Department hosts 31% Year 1 women undergraduates, well above the 23% HESA 2018 benchmark. There is also a significant increase in the percentage of women Lecturers (33% compared with the 25% HESA benchmark), which is directly due to changes in our recruitment process (see Section 5.1i), resulting in 10 women and 15 men appointed to Lectureships in the last 6 years.

Key pinch-points remaining are the retention of women undergraduates who specialise in Physics from Year 2, and the recruitment of women to Research staff positions. Figure 2.4 shows Academic-related and Assistant staff by grade. The Department employs 36% women PSS compared with 63% in other UK departments; the difference mostly due to our large technical teams, dominated by men. The gender balance in technical teams is an issue we are working on.

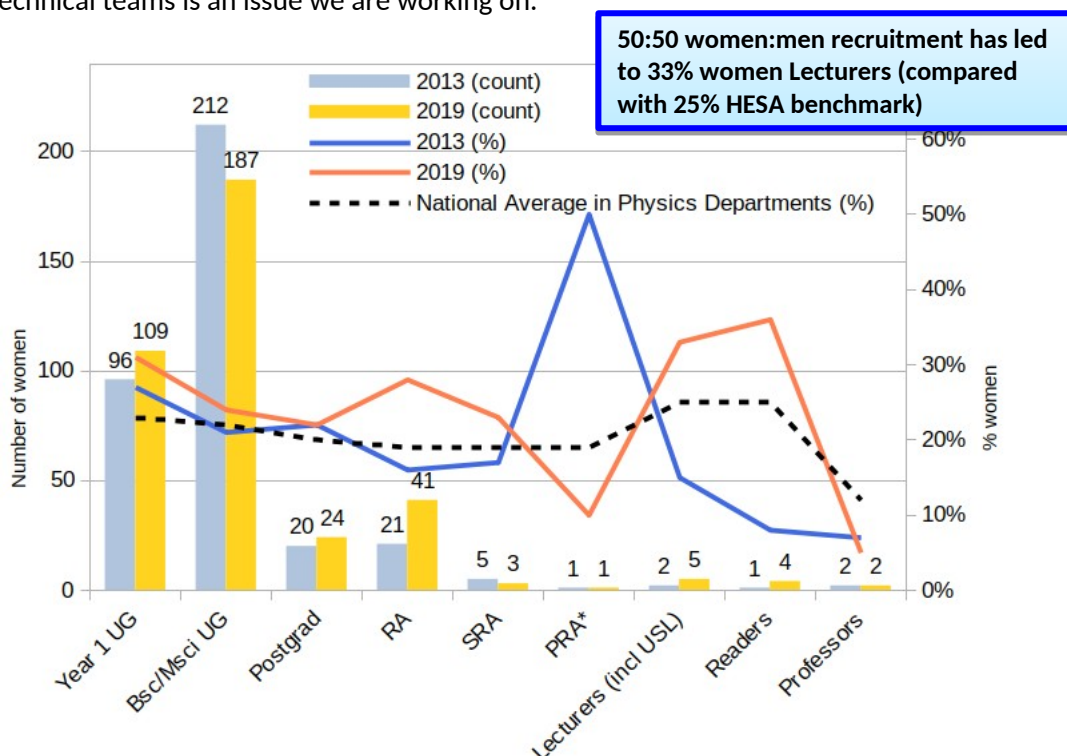
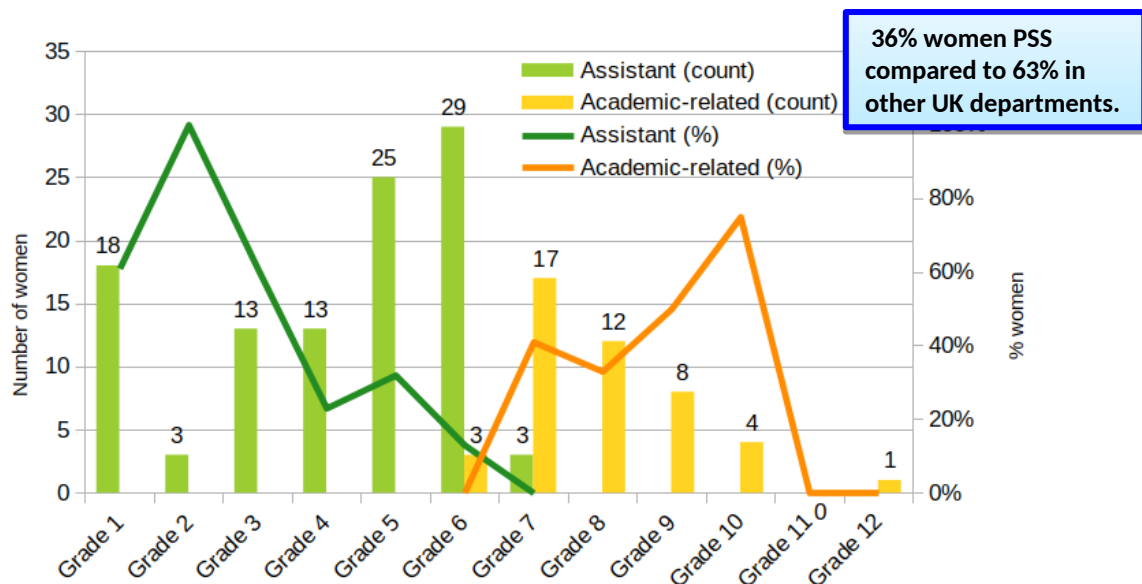


Figure 2.3: Snapshot of Cavendish women: educational and academic stages. \*PRA grade newly available in 2013



**Figure 2.4: Snapshot of Cavendish women: Academic-related and Assistant staff by Grade and gender. A full breakdown of staff by Grade and gender is given in Section 7 (Further Information).**

#### Highlights: Description of the Department

- HoD is committed to ED&I in the Department and is a champion in the School and University.
- Department restructure significantly improves support for all staff and students; provides a clear pathway for all staff, particularly benefitting women professional and research staff; and widening participation for early-career women academics.
- Equal recruitment of 50:50 women:men academics has led to 33% women Lecturers (compared to 25% benchmark).
- Cavendish III design will have state-of-the-art family-friendly facilities.

**Total word count: 842 words**

### 3. THE SELF-ASSESSMENT PROCESS

**Recommended word count: 1000 words**

Describe the self-assessment process. This should include:

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

Following our 2014 AS Gold award, our Self-Assessment Team (SAT) met approximately once a month during term. The SAT was the focus for AS activities and was reconstituted with new membership in 2016, with a 2-year term of office, to include more PSS in response to the changes in the AS principles. Members were selected by the Chair to provide as wide a representation as possible, with priorities being role, gender and ethnicity. A further consideration was to ensure that all staff categories and grades are represented, to provide them with the opportunity, alongside senior colleagues, to voice their views and ideas of what is important to them. The membership (50% men, 50% women) reflected the breadth and variety of staff and students and experiences present in the Laboratory (Table 3.1). The SAT did not have executive responsibility; instead key members were expected to take matters arising from focussed discussion back to their own committees to action or to add to their worklist.

**Table 3.1: Membership of the Athena SWAN Self-Assessment Team in 2018 (in alphabetical order).**

Name (Woman/Man)	Position	Relevant experience
Saba Alai (W)	Department Safety Officer, Secretary of Departmental Safety Committee, and Chair of University sub-committee on Physical Safety, Chartered Fellow of Institution of Occupational Safety and Health	<ul style="list-style-type: none"> <li>Member of Personnel Committee</li> <li>Member of Physics Wellbeing Committee</li> <li>Completed Springboard in 2016</li> </ul>
Two teenage daughters; caring responsibilities for elderly parents. Ethnic and religious minority (Iranian Baha'i, now British citizen).		
Ankita Anirban* (W) *term concluded, to be replaced.	PhD student	Member of Cavendish Inspiring Women.
Paul Bennett (M)	Research Associate, Centre Scientific Computing, Communications officer Cambridge PdOC society	<ul style="list-style-type: none"> <li>Chair of the Research Staff Committee</li> <li>Member of the Personnel Committee</li> </ul>
Postdoc champion for the Department's mentoring scheme		
Sarah Bohndiek (W)	Reader in Biological Physics	<ul style="list-style-type: none"> <li>Member of Personnel Committee</li> <li>2014 WiSE Research Award and MSCA Nurturing Research Talent Prize</li> </ul>
Established a new mentoring scheme, run mentoring champions. Promoted after mentoring from HoD, CV scheme, and peer mentoring.		
Pietro Cicuta (M)	Professor of Biological Physics, Deputy Head of Department (Finance & Resources) and Head of Biological and Soft Systems	
Leads a gender-balanced research team and is father of two.		
Anne Davis (W)	Professor of Mathematical Physics	<ul style="list-style-type: none"> <li>Chair of Athena SWAN SAT for Faculty of Mathematics</li> <li>Departments School buddy</li> <li>Former Chair of School of Physical Sciences ED&amp;I forum</li> <li>Former University Gender Equality Champion for STEMM subjects.</li> </ul>
Sits on SAP committees. Led the Mathematics successful 2013 AS Bronze Award and Mathematics to become a supporter of the London Mathematical Society Good Practice Scheme.		
Richard Firth-Godbehere (M)	Athena SWAN Administrator	
Consultant who is developing a robust and collaborative central database for the Department's diversity data.		

<b>Chris Ford (M)</b>	<b>Professor of Quantum Electronics</b>	
Responsible for the Department's workload model, which was adopted many other Departments in the University and elsewhere.		
<b>Val Gibson (W)</b>	<b>Professor of High Energy Physics. Head of High Energy Physics</b>	<ul style="list-style-type: none"> <li>• University Gender Equality Champion for the STEMM subjects</li> <li>• Member of the IoP Diversity and Inclusion Committee</li> <li>• Chair of the IoP Juno Panel</li> <li>• WISE Leadership Award in 2013</li> <li>• Royal Society Athena Prize in 2016.</li> <li>• Former Chair of the Personnel Committee</li> <li>• Former School of Physical Sciences Gender Equality Champion and Chair of School ED&amp;I Forum</li> <li>• Member of the General Board Education E&amp;D Committee</li> <li>• Chair of University's "People Strategy" for Recruitment</li> </ul>
Led the Department's successful 2013 AS Gold application. Advises the Vice and Pro-Vice Chancellors on gender equality matters. Two daughters.		
<b>Chris Haniff (M)</b>	<b>Professor of Astrophysics, Deputy Head of Department (Education), Director of Graduate Education, Chair of Graduate Education Committee, Member Graduate Education Committee of the School of Physical Sciences</b>	<ul style="list-style-type: none"> <li>• Chair of Graduate Student Consultative Committee</li> </ul>
Son of Indo-Guyanese immigrants of the Windrush generation, and a passionate advocate for widening participation at Cambridge.		
<b>Liz Hewitt (W)</b>	<b>Head of Physics HR (60% FTE), Academic-related, CIPD Advanced Diploma</b>	
Two children; working in a job share following flexible working due to caring responsibilities for one of her children.		
<b>Richard King (M)</b>	<b>Undergraduate Laboratory Manager</b>	<ul style="list-style-type: none"> <li>• Member of the Safety and Wellbeing committees</li> <li>• Wellbeing Advocate and a Mental Health First Aider</li> </ul>
Responsible for the day-to-day running of teaching laboratories, bringing him into contact with a large number of students and staff.		
<b>Mike Moriarty (M)</b>	<b>Head of IT Transformation</b>	<ul style="list-style-type: none"> <li>• Former student union president with experience in campaigning on ED&amp;I awareness and rights.</li> </ul>
Lived in Asia, working with people from a variety of cultural backgrounds. Built a majority-women IT team for a school in Korea. Two multicultural children.		
<b>Peter Norman (M)</b>	<b>Laboratory Superintendent</b>	
Responsible for facilities and employment and career development of the technical support staff.		
<b>Rachael Padman (W)</b>	<b>University Lecturer, Former member of University Council and General Board, Member of Teaching Committee</b>	<ul style="list-style-type: none"> <li>• Chair of SAT</li> <li>• Chair of Personnel Committee</li> <li>• Member of Equality Assurance Assessment Review Group</li> <li>• Chair of the School ED&amp;I Forum</li> </ul>
University's "Trans safe contact" for current and prospective staff and students. Has also been a member of WiSETi and the "Interconnect" inclusivity group.		
<b>Carmen Palacios-Berraquero* (W)</b>	<b>PhD student, now Research Associate</b>	<ul style="list-style-type: none"> <li>• Member of the Cavendish Inspiring Women.</li> </ul>
*term concluded, to be replaced. Joined the SAT as a PhD student then became a Research Associate		
<b>Andy Parker (M)</b>	<b>Head of Department, Professor of High Energy Physics</b>	<ul style="list-style-type: none"> <li>• Chair of review of University's "People Strategy" for career pathways</li> </ul>
Shares caring responsibilities for 2 daughters. Champions the ED&I agenda with fellow HoDs in School.		
<b>Tina Potter (W)</b>	<b>Early Career Lecturer in High Energy Physics</b>	
A mother of two pre-school children; she has recently returned from maternity leave.		
<b>John Richer (M)</b>	<b>Professor of Astrophysics, Director of Undergraduate Teaching, Chair of the Teaching Committee.</b>	<ul style="list-style-type: none"> <li>• Chair Staff Student Consultative Committee</li> </ul>
Passionate about providing challenging and inspiring education where all students can achieve their potential irrespective of their background.		
<b>David Rudderham (M)</b>	<b>Soft Facilities Coordinator</b>	<ul style="list-style-type: none"> <li>• Member of the Personnel committee</li> <li>• Member of the Wellbeing committee</li> <li>• Member of Physics Social committee</li> </ul>

Manages Facilities teams of 10 women and 7 men. Away from work, enjoys spending quality time with my family.		
<b>Tom Sharp (M)</b>	<b>Senior Mechanical Engineering Technician</b>	
Started as an apprentice in workshops, continued to become a Chief mechanical workshop technician. Represents workshop technicians and technical academic-related personnel on the AS SAT committee.		
<b>Sam Stokes (W)</b>	<b>Departmental Administrator (cover for Gillian Weale), Member of the Registry's temporary placement team</b>	
Undertakes troubleshooting and project-based assignments. A working mother, whom the Department has allowed to work flexibly for childcare responsibilities.		
<b>Gina Warren (W)</b>	<b>University Equality &amp; Diversity Consultant</b>	
Provides equality support to the School. 0.8 FTE with two small children.		
<b>Gillian Weale (W)</b>	<b>Departmental Administrator (on maternity leave)</b>	
Overall responsibility for all aspects of departmental administration, particular focus on governance, committee structure and student matters. Mother of a 3-month baby boy.		

(ii) an account of the self-assessment process

The SAT reported to the Department's Personnel Committee, to the Cavendish Board for endorsement and support of significant outcomes, and to the Staff Meeting each term. The Chair of the SAT also reported directly to the HoD on progress and issues arising, and to request resources. The SAT was very active with all members soliciting advice from their respective peer groups through focus groups and daily interactions. The Chair also attended the School's ED&I Forum each term, to report on progress and share best practice with other departments in the School.

In preparation for this application, the self-assessment process was informed by:

- analysis of current staff and student data against the 2013 application;
- results of the 2014 School staff survey (50% return) and subsequent focus groups;
- results of the 2018 Department staff survey (62% return) and focus groups;
- research on gender and undergraduate admissions and attainment;
- Year 1 undergraduate intentions survey;
- researcher-led Cavendish Inspiring Women activities; and
- wellbeing and communication initiatives.

In 2017, the SAT developed a statement of the Department's "Values" that form the basis of expectations about behaviour and attitudes. "Our Values" were endorsed by all staff at the termly Staff Meeting, and launched in the Department at an event on the 2017 International Women's Day (front-cover): The two Professorial women in the Department, Athene Donald and Val Gibson, are driving change in the Department through their respective senior roles within the University and Colleges. Val Gibson, the lead behind our AS Gold award, became Chair of the School's ED&I Forum. She instigated a School-level Action Plan, a mechanism for departments to report to the School, and a department buddying scheme. This is considered a beacon activity in the University; the School being the first to set up such a reporting and support system. The Department's School buddy and member of the SAT is Anne Davis, who has provided invaluable advice about this application. The School-level actions have resulted in major consequences across the Department, School and University, such as mandatory ED&I training for all (the policy pioneered in Physics).

The Department has sustained its leadership role on gender equality at School and University level, and its unique influence on University policy and practice. Athene Donald was the first University Gender Equality Champion and continues to direct the Women in Science, Engineering and Technology initiative (WiSETi). Val Gibson is now the University's Gender Equality Champion for STEMM subjects, and meets with the Vice-

Chancellor and Pro-Vice Chancellor termly to discuss ED&I issues. Current initiatives include the investigation of the “Gender Pay Gap” (currently 19.6% at Cambridge) and targeted work-streams to mitigate future bias; and engagement with Colleges (with Athene Donald) with the ED&I agenda.

#### Our Values

**Consideration:** treating others as we would like others to treat us;

**Respect for all:** showing respect for each other;

**Helping others to excel:** actively seeking ways for everyone to give their best regardless of personal circumstances;

**Supporting career aspirations:** encouraging and supporting everyone in their career aspirations;

**Recognising contributions:** recognising everyone’s contribution to the Department’s success.

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

Following the 2018 AS submission, the SAT evolved into the Cavendish Community Forum (CCF), which provides a forum for the discussion of issues regarding equality, diversity, inclusiveness, well-being, and aims to create a representative and inclusive community at the Cavendish, with equal opportunities for all. The CCF monitors and maintains the Athena Swan Action Plan, considers areas for development, and makes recommendations regarding the community to the Department. This will involve continuing with staff surveys at regular (2-3 year) intervals, accompanied by focus groups to elicit qualitative information about staff perceptions of working in the Department, and which are very effective in identifying actions for us to pursue (**Action A.1**). The CCF will communicate their progress and findings through termly Staff Meetings, and through posters and the Cavendish People leaflet (**Action A.2**). The CCF will report informally to the Cavendish Board and School ED&I Forum, and report progress at regular intervals (**Action A.3**). We will continue to replace 50% of the CCF membership every two years to involve new colleagues and sustain momentum and develop fresh ideas; 50% will stay the same to provide continuity (**Action A.4**). New members of the CCF are chosen by the HoD and the CCF Chair, and not on a volunteer-basis.

**Action A.1:** Undertake staff and student survey, supported by focus groups, with a 2-3 year interval.

**Action A.2:** Communicate progress and findings to staff and termly Staff meetings, and through posters and Cavendish People leaflet, and respond to concerns.

**Action A.3:** Submit an annual formal report externally to the School ED&I Forum, and act on feedback.

**Action A.4:** Turnover of 50% of the SAT personnel on a 2-year cycle to sustain momentum and develop fresh ideas.

#### Highlights: Self-Assessment Process

- An embedded statement of the Department’s values: “Our Values”.
- Driving change and policies through our leadership in the University and School ED&I forums.

**Total word count: 821 words**

## 4. A PICTURE OF THE DEPARTMENT

Recommended word count: 2000 words

### 4.1. Student data

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

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

(iv) Numbers of undergraduate students by gender

Over 600 undergraduates are admitted annually to read Natural Sciences (NatSci), which includes a range of physical and biological subjects and leads to a degree in one of 16 subjects. The course is an integrated masters course leading to a BA (3 years) plus MSci (1 year). External postgraduate students join the 4<sup>th</sup> year to read for a MAST degree. All our undergraduate degrees are full time.

In Year 1, students study 3 experimental subjects (Physics is one of 8 options) and Mathematics. In Year 2, students develop a stronger subject focus, and choose their specialist subject in Year 3 or 4. In Year 1 and 2, lectures in the centre of Cambridge and practical classes at West Cambridge are organised by the Department; the Colleges oversee their own students' progress and provide small group teaching. The Year 3 and 4 courses are solely organised by the Department with the majority of lectures and research projects undertaken on-site.

The Colleges, which are separate and legally autonomous from the University, admit students to read the various undergraduate courses. The admissions process is designed to support widening participation, subject to meeting the high threshold for admission. **The Department has no direct involvement with admissions, and hence no control over its entry.** However, many academics in the Department are involved in admissions by virtue of their College Fellowships.

In 2016, the Cambridge Natural Sciences Admissions Assessment (NSAA) was introduced to support admissions, following the removal of AS-level exams. The Department is central to the development of the NSAA through our work with the Isaac Physics Project (Sect 5.6(iii)). The Colleges use the NSAA in addition to their own interview processes. The NSAA results show a gender bias against women of the order of 10% (Table 4.1.1). The data from the NSAA will continue to be analysed, work undertaken to mitigate gender bias (**Actions B.1-B.2**).

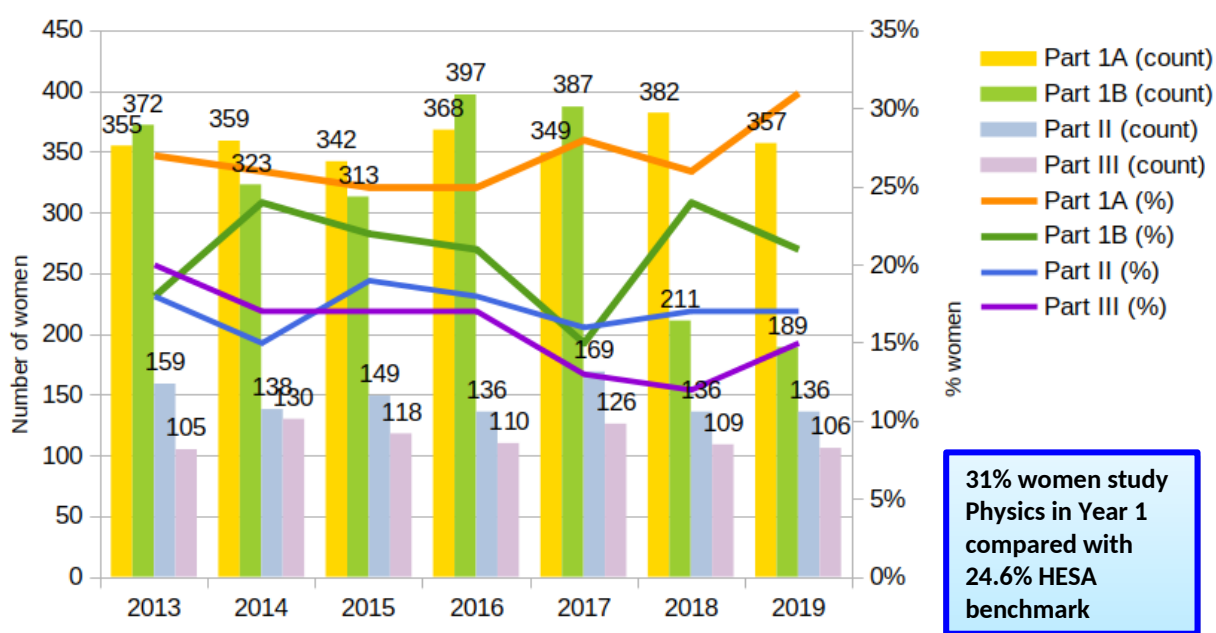
**Action B.1:** Further analyse the NSAA data for gender bias and work to mitigate the gender bias against women in the NSAA.

**Action B.2:** Promote NSAA as a gender unbiased means of selection for admissions.

The number of women who read Physics in Year 1 is key to the career pipeline (Figure 4.1.1), and the proportion is relatively constant. An upwards trend to 31% is partly caused by changes to the Computer Science degree, which meant that its predominantly male cohort were no longer enrolled in Physics.

**Table 4.1.1: Results by gender for the Natural Sciences Admissions Assessment. Section 1 is short multiple-choice questions on Mathematics, and two subjects chosen from Physics, Biology, Chemistry and Advanced Mathematics. Section 2 is two long problem-solving questions chosen from two Biology, two Chemistry, and two Physics questions. Shown are the average scores for the Physics and Chemistry questions.**

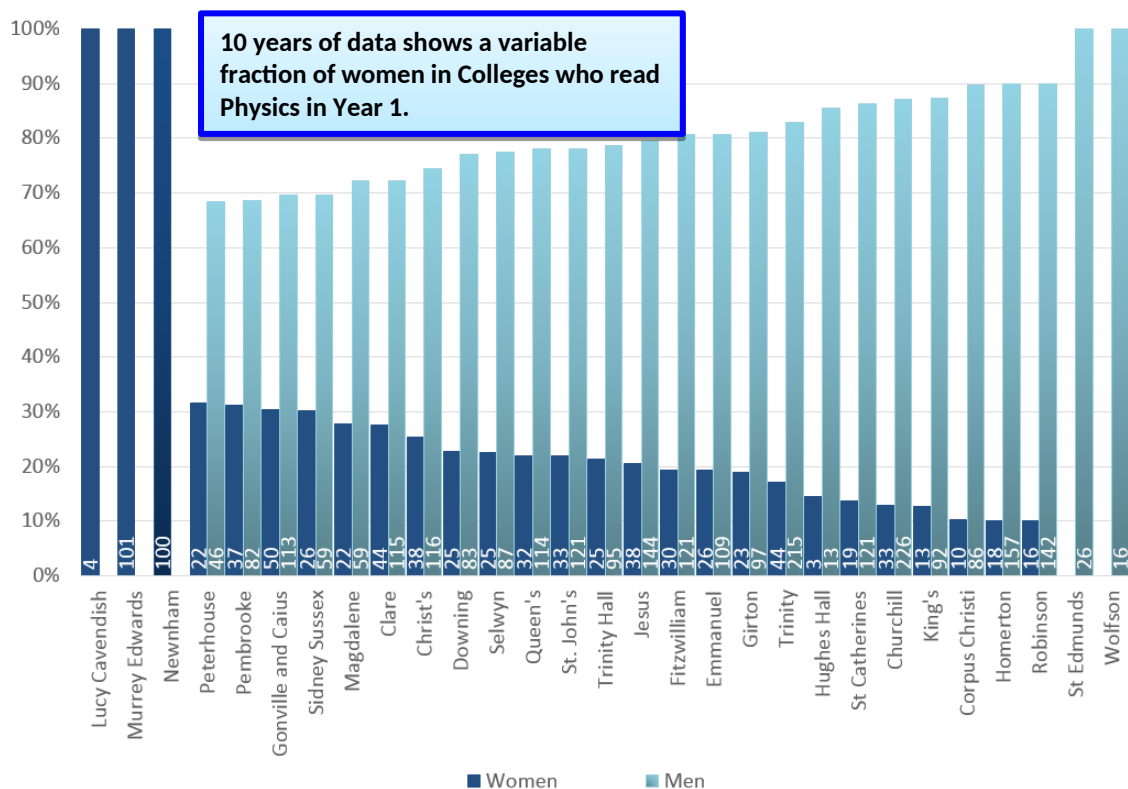
Section 1 (Max score 27)		Section 2 (Max score 20)	
Group	Score	Group	Average score per question
<b>Men Candidates (1165)</b>		<b>Men Candidates (1131)</b>	
Mean	13.6	Mean	10.1
Median	13.1	Median	9.5
<b>Women Candidates (548)</b>		<b>Women Candidates (533)</b>	
Mean	11.8	Mean	9.3
Median	11.2	Median	8.8



**Figure 4.1.1: NatSci students who read Physics by gender.**

Figure 4.1.2 shows the distribution of Physics students per College in Year 1 aggregated over 10 years; the women-only Colleges are evident with 100% women; while other Colleges range between 10–37%. The Department will run a focus group with Departmental College admissions officers to review admissions procedures and policies (**Action B.3**).

**Action B.3:** Run a focus group with Departmental College admissions officers to review admissions procedures and policies for physical NatSci candidates, in particular for women and mitigate any biases.



**Figure 4.1.2: NatSci Year 1 students who read Physics by gender and College. Wolfson, Hughes Hall, Lucy Cavendish, and St Edmunds are colleges for mature students (21+) and have low numbers of undergraduates.**

As reported in our 2013 AS Gold application, our women undergraduates stress that they wish to be treated the same as men, but the reactions of Lecturers, small group supervisors and their own peer group can affect their confidence in learning. The performance of women reading Year 1 Physics is worse than that of men (Figure 4.1.3); although all exam papers are marked gender blind. This performance difference is not just in Physics, but also in cognate subjects, such as Mathematics and Chemistry.

Our 2013 Action Plan led us to undertake an annual mock exam that incorporated an innovative project to investigate the performance of Year 1 students depending on exam question style. The results have been published<sup>1</sup> and are shown in Figure 4.1.4, aggregated over 3 years. There is clear evidence that scaffolded-type questions benefit all, most preferentially women. The study also examined school background, single-sex versus mixed-sex schools, and EU/overseas versus UK. This beacon activity has been disseminated across the sector in many seminars and conferences.

<sup>1</sup> Valerie Gibson, Lisa Jardine-Wright and Elizabeth Bateman, "An investigation into the impact of question structure on the performance of first year physics undergraduates at the University of Cambridge, Eur. J. Phys. 36 (2015) 045014.

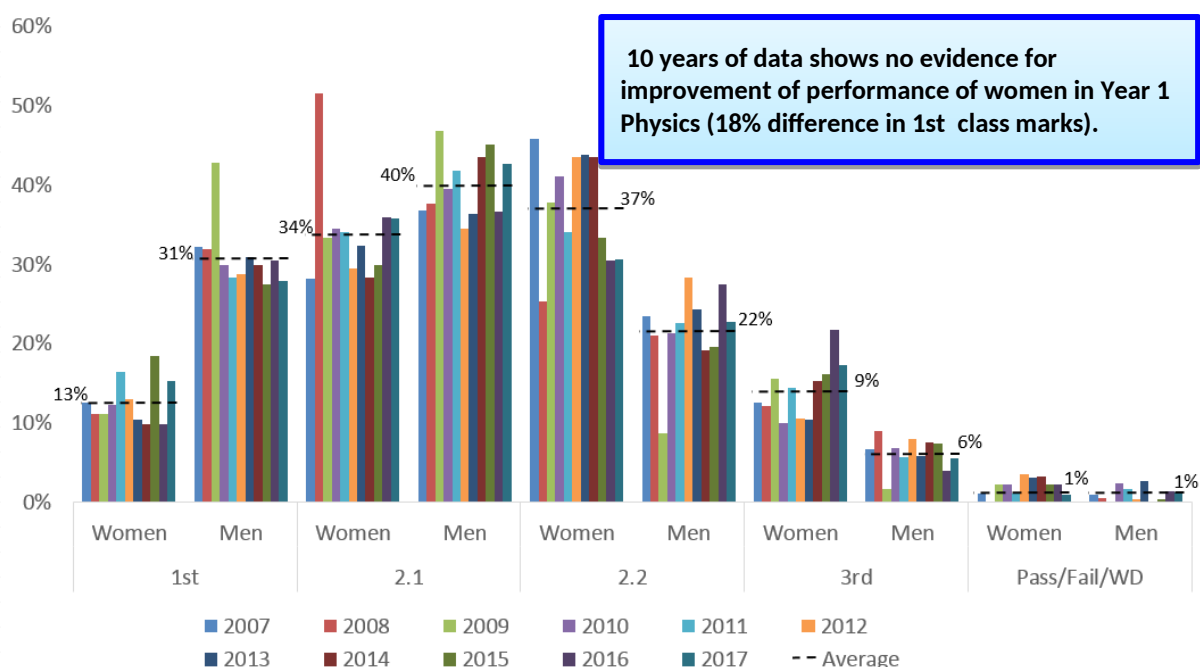


Figure 4.1.3: NatSci Year 1 Physics results by gender.

Innovative study shows that scaffolded-style questions improve performance, preferentially benefitting women.

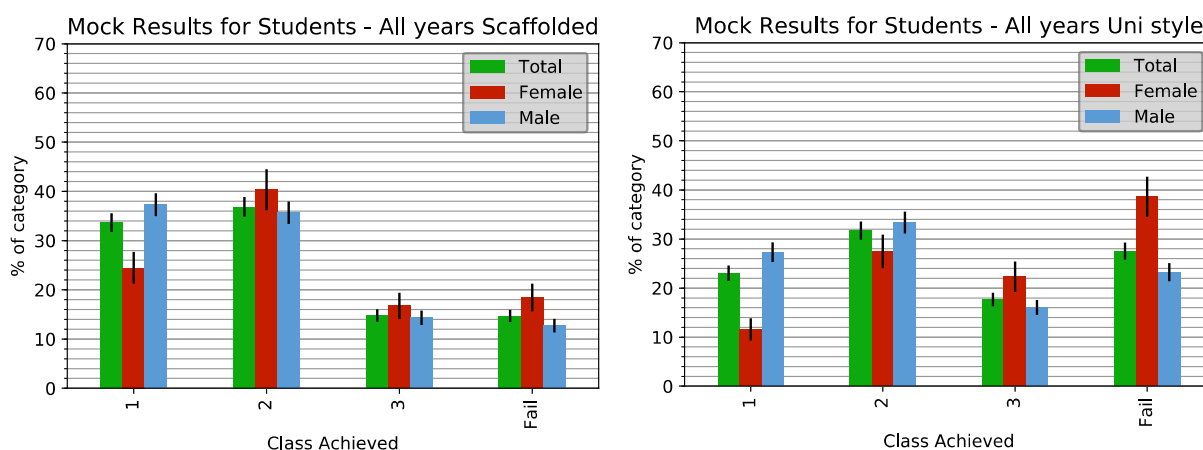


Figure 4.1.4: NatSci Year 1 Physics mock exam results (2014-17) broken down by question type (scaffolded or University).

Unfortunately, the introduction of the mock exam did not lead to significant impact on the Year 1 performance. The Department has adopted scaffolded-type questions to enhance problem-solving skills in Year 1/2 teaching methods, as well as other ways of improving the performance of women (Action B.4-B.8).

**Action B.4:** Develop teaching methods in Year 1 and 2 from experience with mock exam and scaffolded-style questions.

**Action B.5:** Improve guidelines for small group supervisions.

**Action B.6:** Increase exam-style questions on problem sheets.

**Action B.7:** Introduce exam preparation study groups.

**Action B.8:** Delivery of small group supervisions for women and non-binary students by CiW.

Year 2 is the earliest point at which the Department can assess its success in engaging women in Physics. Following the success of the Year 1 intentions survey, reported in 2013, the Department runs an annual online survey to obtain feedback from all Year 1 students, and compares the average exam results at the end of year for those who originally intended to read Physics to Year 3/4 (62.2% for women and 67.5% for men), with those who actually continued to read Physics (66.2% for women and 68.7% for men). Proportionally more women in the lower achievement tail chose other science subjects, resulting in a lower percentage of women in Year 2. The Department has sustained a proportion of ~20% women at Year 2 (Figure 4.1.1) and the difference in exam performance by gender is still evident (Figure 4.1.5).

Students choose Physics as their specialist subject in Year 3, in a course entitled “Experimental and Theoretical Physics”. Year 3 leads to a BA degree, and Year 4 to an MSci degree. The number of students who read Physics in Year 3 is approximately 130, with about 17% women (Figure 4.1.1).

Figure 4.1.6 shows the College retention rates in Physics from Year 1 into Year 3, where some Colleges demonstrate significant differences – the Department will engage with College Directors of Studies to investigate this (**Action B.9**). There also remains some gender difference in the exam results (Figure 4.1.7).

**Action B.9:** Run a focus group with College Directors of Studies to investigate the advice given to students, in particular women, and develop a good practice guide.

In 2013, the condition of at least a 2.1 class in Year 3 was required for Cambridge students to enter the Year 4 MSci course. The numbers and proportion of women in Year 4 is shown in Figure 4.1.1, where the indication of a downward trend has been reversed. By Year 4, any gender difference in performance (Figure 4.1.8) has dissipated, and the women perform equally to the men. Given the 2.1 entry requirement, the tail in the 2.2/3<sup>rd</sup> class results is more evident for men than for women

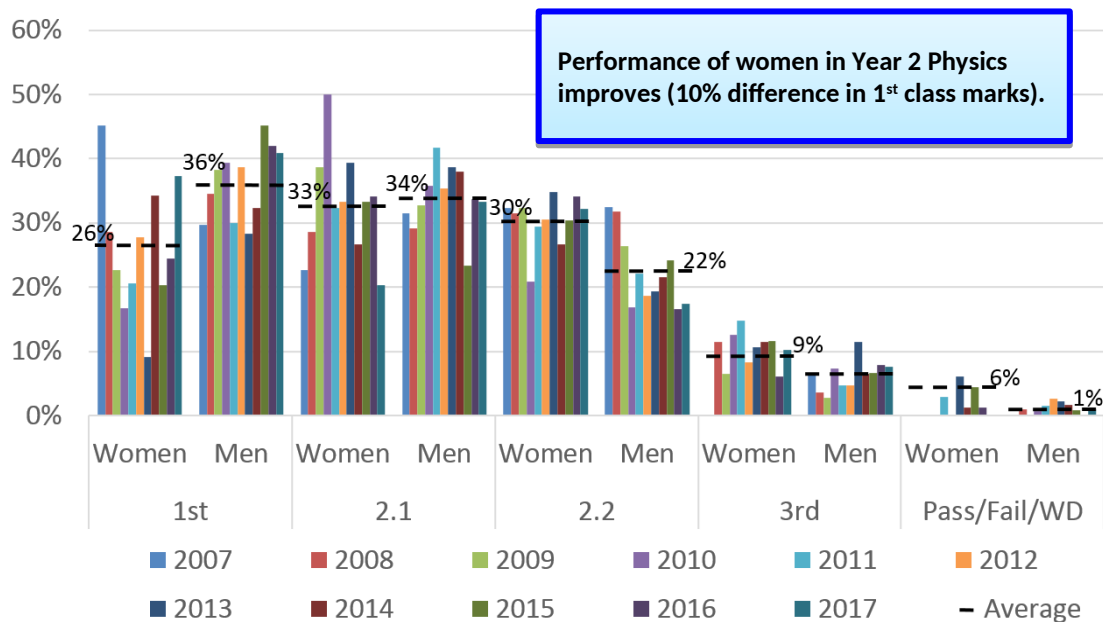


Figure 4.1.5: NatSci Year 2 Physics results by gender.

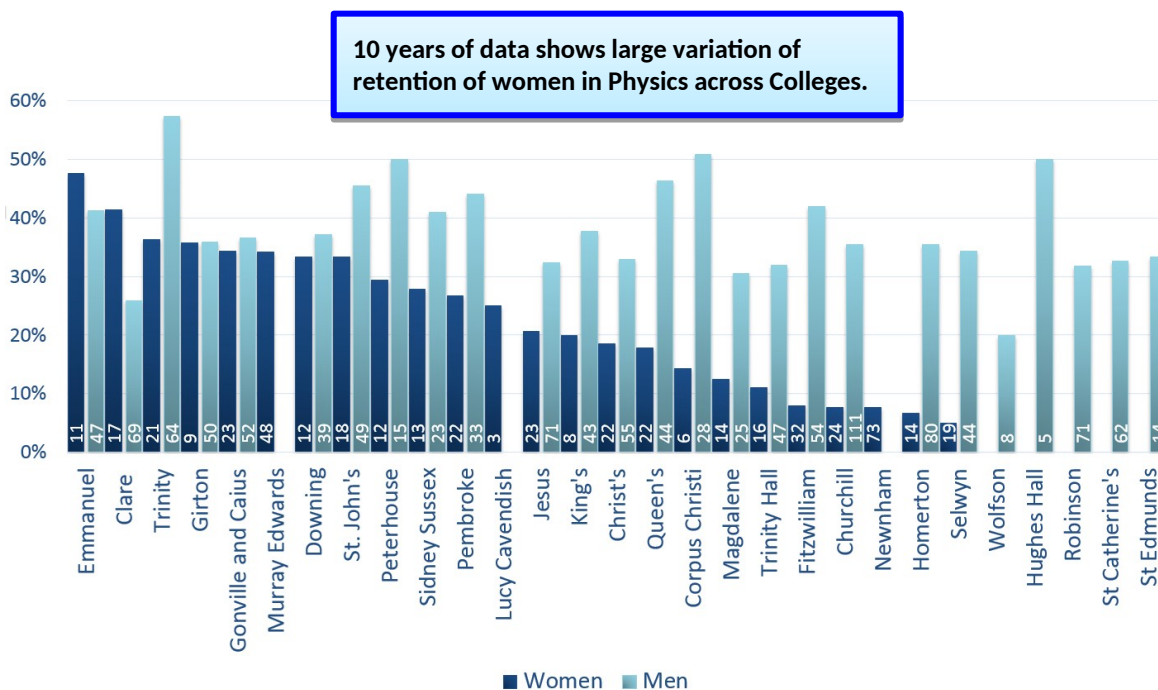


Figure 4.1.6: NatSci Year 1 to Year 3 retention by gender and College. The cohort spans 08/09 to 13/14 (Year 1) and 10/11 to 15/16 (Year 3). The numbers are not corrected for the very few students who move into Physics from another subject.

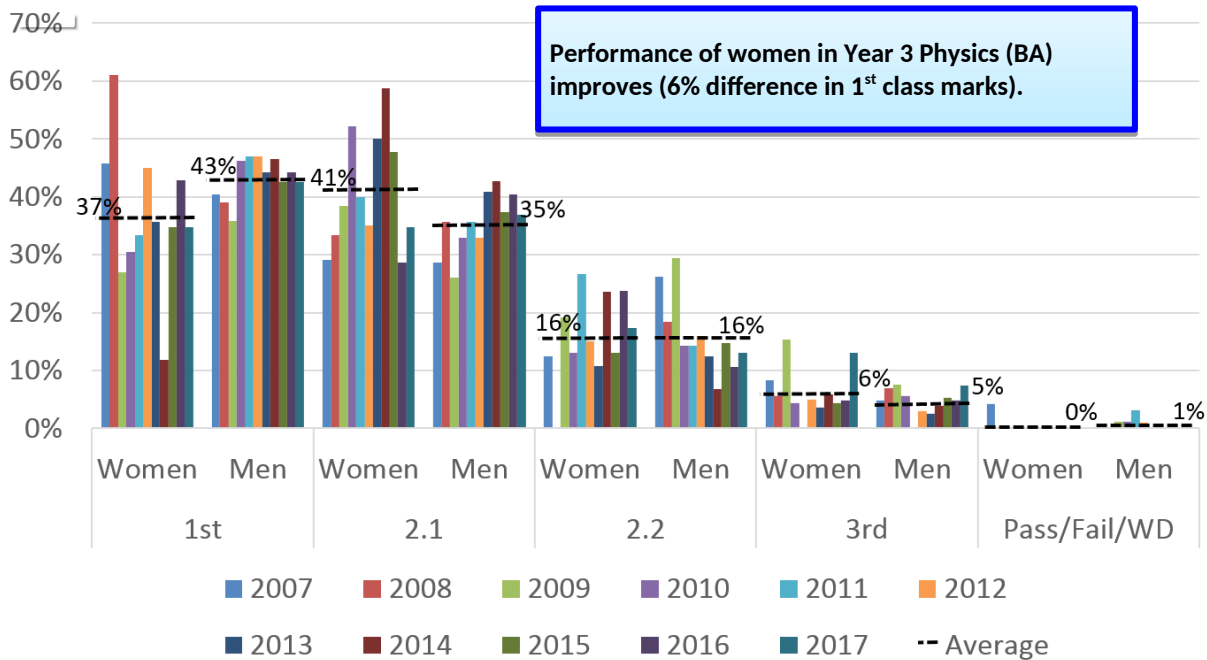


Figure 4.1.7: NatSci Year 3 Physics results by gender.

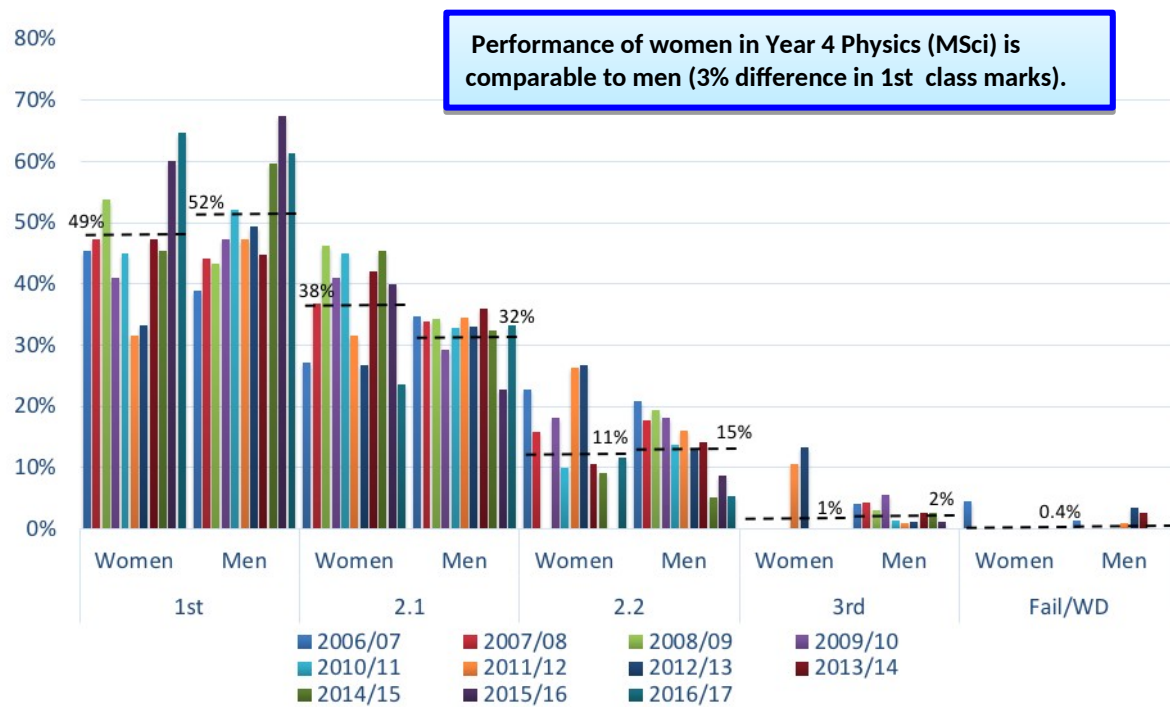


Figure 4.1.8: NatSci Year 4 (MSci) Physics results by gender.

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

The MAST is the only taught postgraduate degree in the Department, where entry requirement is a high 2.1 or equivalent degree in Physics. The recruitment process is shown in Figure 4.1.9, where there is a general trend that the number of applications is increasing. However, the fraction of applications and admissions for women is decreasing and we will investigate whether there is an underlying reason (**Action B.16**).

The MAST students receive an information pack with the Year 1-3 teaching materials to prepare before arriving in Cambridge. On arrival, they have an induction meeting to explain the peculiarities of the Cambridge system, and to promote networking within the cohort. They are given a dedicated exam training session at the end of the first term, where previous exam questions and answers are discussed in detail, and the strategies for the exams, e.g. writing essays, are explained. In addition, there is a feedback session each term with a dedicated member of Academic staff. We now send the information pack earlier, and have initiated networking schemes prior to the arrival of the MAST students (**Action B.11, B.12**).

The performance of the MAST students is shown in Figure 4.1.10; their performance peaks around a 2.1 class compared to 1<sup>st</sup> class for the MSci students (Figure 4.1.7). We will investigate why there is a difference and introduce more support for the MAST students (**Action B.13**).

**Action B.11:** Send information pack to MAST students as early as possible to enable more preparation time.

**Action B.12:** Initiate networking of MAST students prior to their arrival, and buddying scheme with other MSci students.

**Action B.13:** Investigate performance of MAST students and improve mentoring and support.

**Action B.16:** Investigate and work to mitigate the cause of the decline in the percentage of women admitted to the MAST and PhD by research courses,

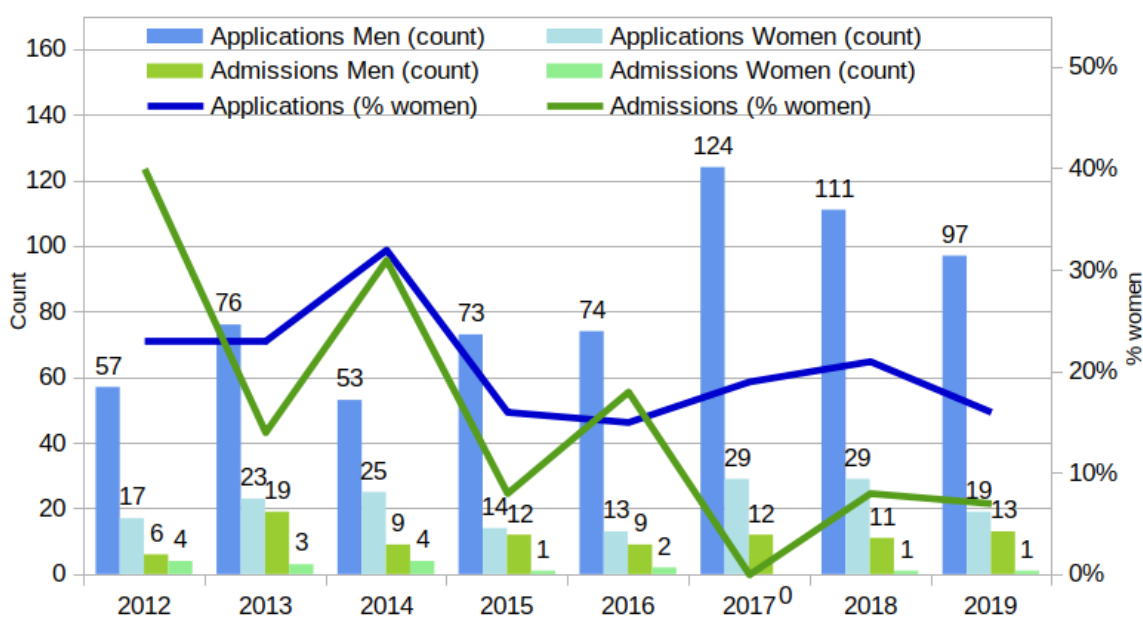


Figure 4.1.9 MAST recruitment by gender.

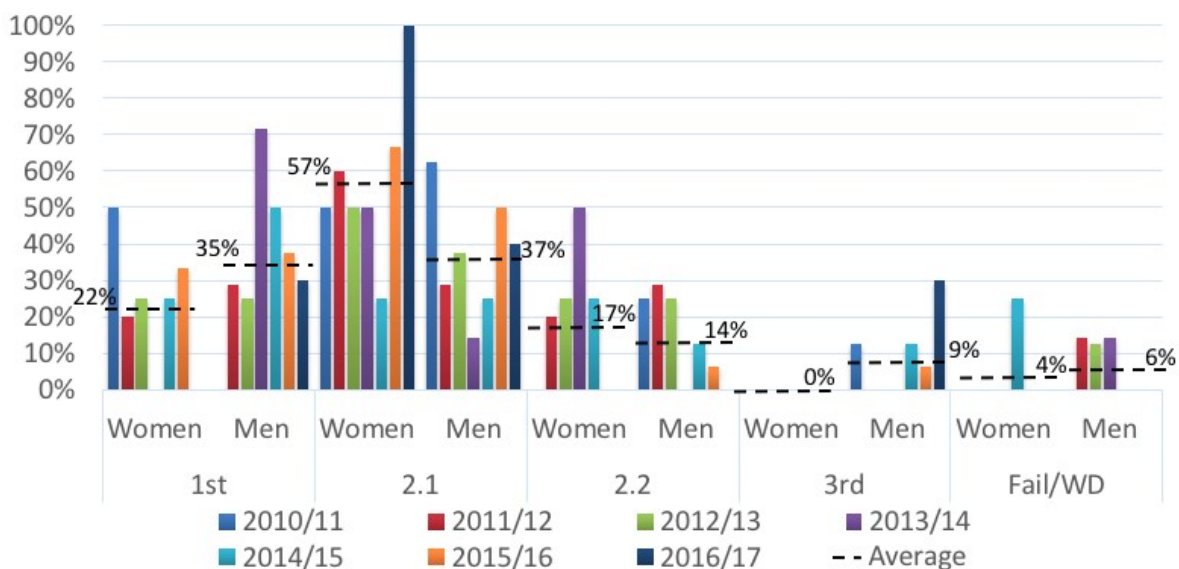


Figure 4.1.10: Performance of MAST students by gender.

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

**Provide data on course application, offers, acceptance and degree completion rates by gender.**

The Department offers MPhil and PhD research in Physics, and an MPhil in Scientific Computing. The Department leads a Nanoscience and Technology Centre for Doctoral Training (CDT), and participates in a Computational Materials CDT (led by the Material Science department) and an STFC Data Intensive Science CDT (started 2017/18). CDT students complete a first taught year in Physics, leading to a Master of Research (MRes), then go on to the PhD programme in departments across the University. The STFC CDT students undertake a similar programme to the standard STFC students, but with additional courses in Data Intensive Science and a 6-month placement in industry. Recruitment data for the postgraduate courses are shown in Figures 4.1.11, 4.1.12, and 4.1.13, respectively. Applications for the MPhil and MRes courses are significantly increasing, with a stable percentage of women applicants. For the future, we need to ensure we attract the best applicants and increase the number of women admitted (**Action B.14**).

The number of PhD applications has remained stable and from 2014-2019, 22% of the admitted PhD students were women, close to the national average of 25%. The average conversion rate (number of offers / number of applications) of 27% (24%) is observed for the women (men) applicants. The PhD completion rates are shown in Figure 4.1.14; aggregated over all years. The data show that women, in general, take longer to submit, but are less likely to discontinue and we will investigate whether there is underlying reason (**Action A.5, B.17**). Longer submission times may be partly aggravated by a lack of support, so we are also ensuring all PhD students have the strong support structure of both a first and second supervisor, as well as an advisor for pastoral concerns.

**Action A.5:** Analyse the PhD graduate student intermissions, exit survey and destinations data.

**Action B.14:** Attract excellent students to the MPhil and MRes courses and increase % of women.

**Action B.17:** Investigate further the gender difference between PhD completion rates and introduce support (1<sup>st</sup> and 2<sup>nd</sup> supervisor, and advisor) to help all students complete on time.

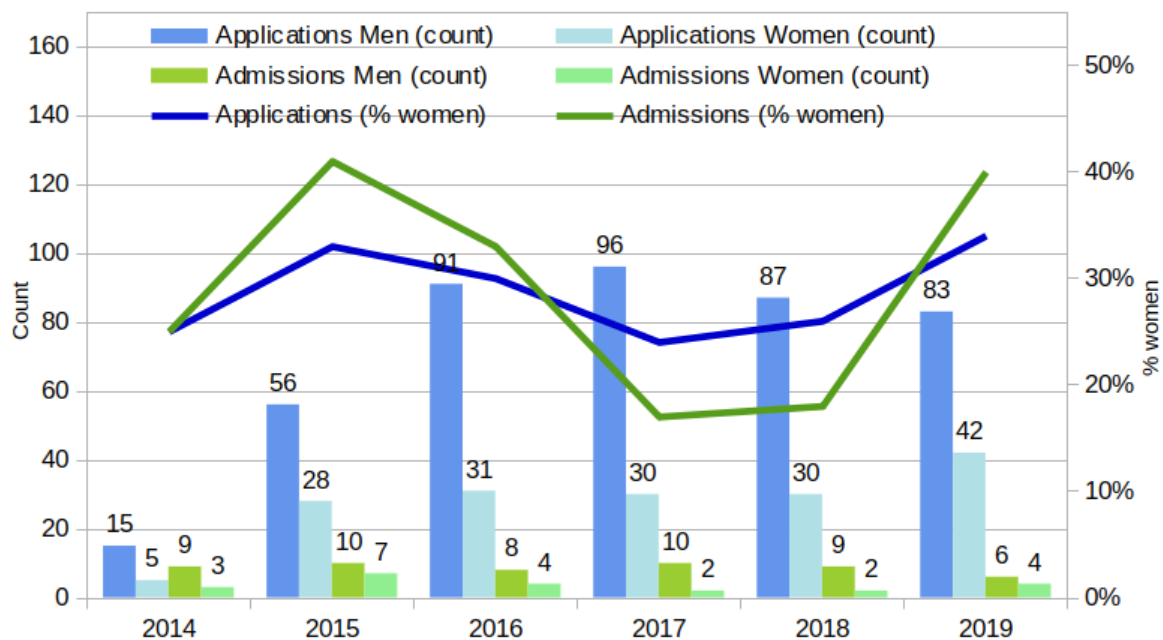


Figure 4.1.11: MRes recruitment by gender.

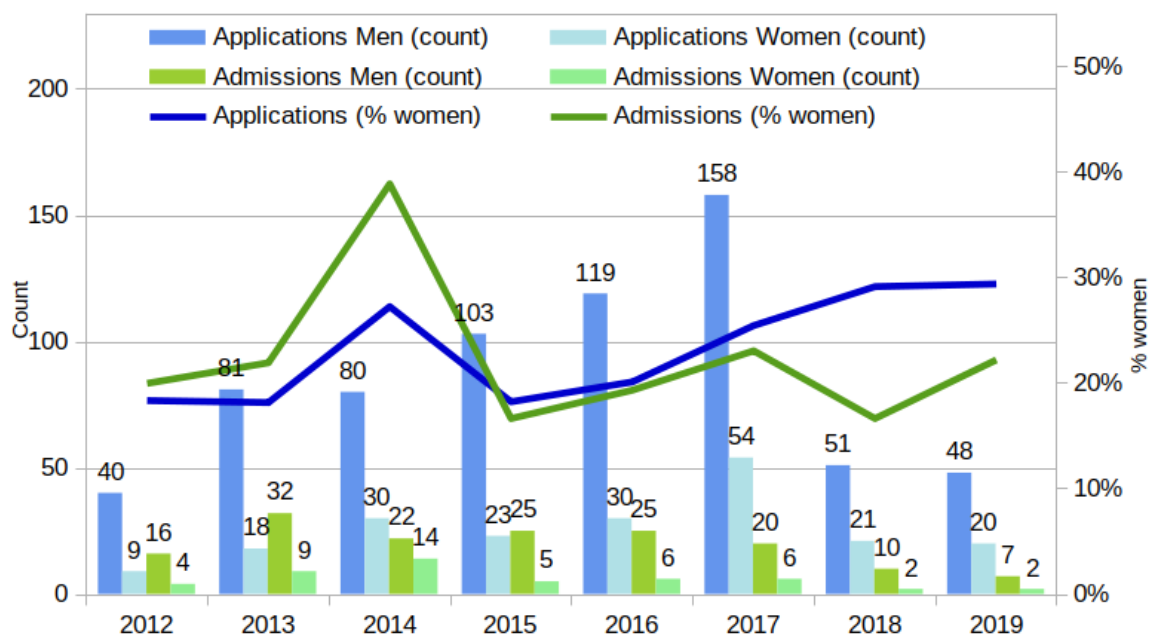


Figure 4.1.12: MPhil recruitment by gender.

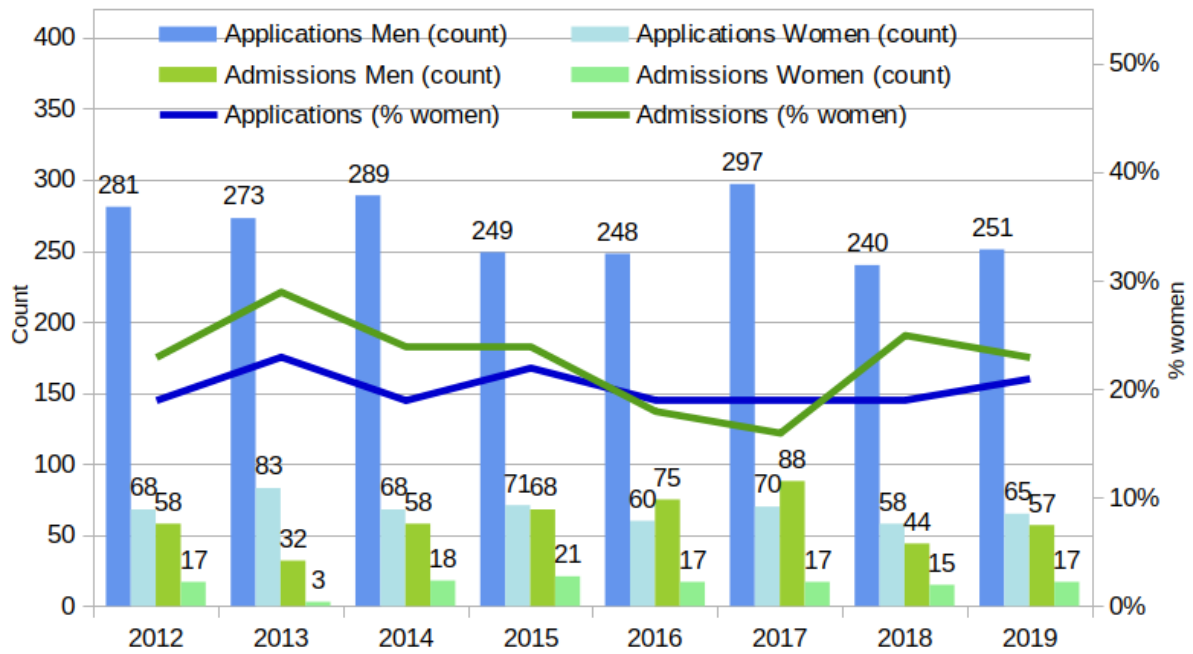


Figure 4.1.13: PhD recruitment by gender.

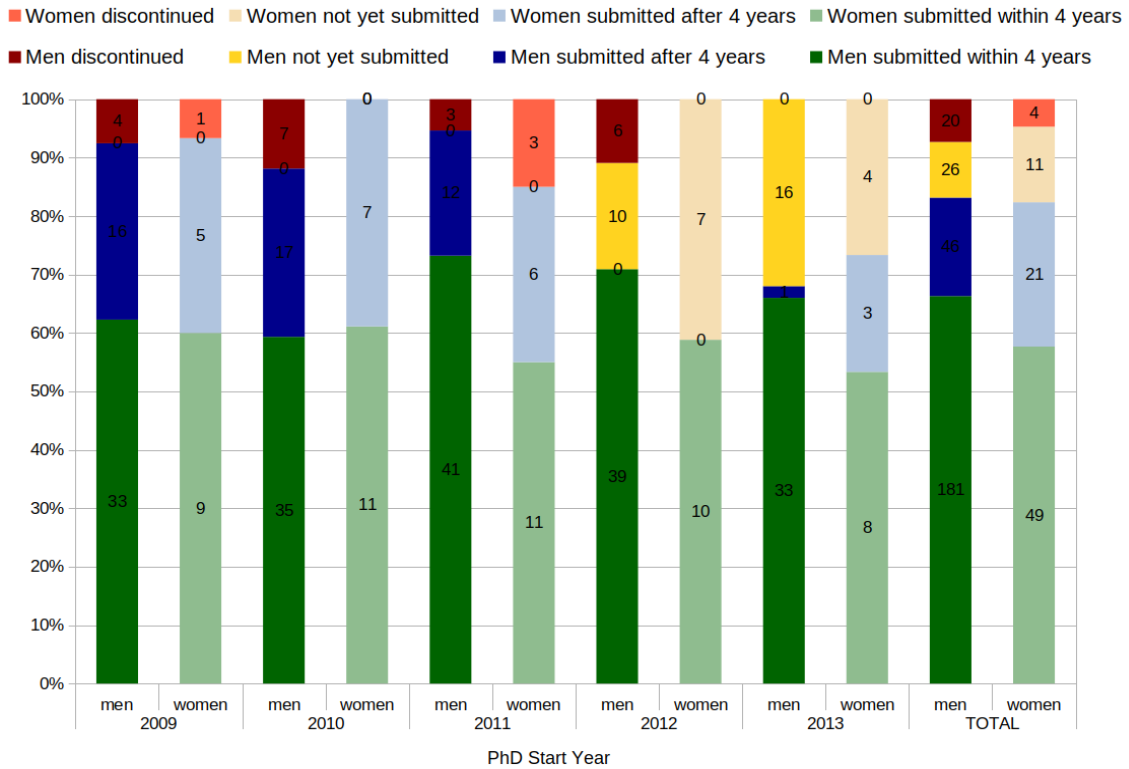


Figure 4.1.14: PhD completion rates.

(vii) Progression pipeline between undergraduate and postgraduate student levels

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

In the 2013-17 postgraduate exit survey, 70% women and 46% men reported they were continuing to postgraduate research. For both genders, 71% of the students had offers from elsewhere and 29% from Cambridge. Our women undergraduates are very successful at securing postgraduate position. We will, however, complete the full picture by investigating the destinations data (**Action A.5**).

Finally, we drive to ensure that every student who studies Physics or works within the Department has a positive experience. We will improve our student induction days (see Section 5.3(iv)), especially to provide ED&I training for every student. We will also introduce opportunities to aid the wellbeing of our students through social networking and informal feedback occasions (**Action B.18**).

**Action B.18:** Introduce social networking and informal feedback occasions for students, e.g. with defined breaks with free soft drinks and biscuits/fruit during practical class sessions.

**Highlights: Student data**

- Department is central to the development of the Cambridge Natural Sciences Admissions Assessment.
- 31% women in Year 1 of Physics course; above national average of 25%.
- With over 10 years of student data, the Department can influence College admissions and guidance given to undergraduates.
- An innovative and multi-faceted approach to address the performance of women undergraduates, especially in Year 1 and 2.
- An annual online intentions survey.
- Women undergraduates perform as well, or better than the men for 4-year MSci degree.
- 27% women accepted to undertake a PhD compared to 24% men.

## 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.

The Department is currently home to 11 women and 49 men Academic staff, and 52 women and 147 men Research staff. Academic staff are recruited to undertake both teaching and research, and Research staff to research-only.

The proportion of women Academic staff is shown in Figure 4.2.1, and the career pipeline by Grade in Figure 4.2.2. Our long-term target is to reach 50% women Academics and over the past 5 years we have achieved equality in Lecturer recruitment. This has led to 33% women Lecturers, well above the national average of 25%. The proportion of women Academic staff has risen from 9% to 18% and this has started to have an impact further up the pipeline: the number of women Readers increased from one to four by 2018. It is too early for the top of the pipeline to have seen an impact in this dataset yet, however, we project that 30% of Professors will be women in 5 years as our Lecturers and Readers move through the University promotion process. The number of women Professors has already increased in the most recent promotions round, but this falls outside the timescale for the data considered here.

In 2014, the Department invested in 6 fixed-term (3-year) Lectureships aimed at early-career academics with starting dates in 2015/16. This was to strengthen the effort available for undergraduate teaching at a time when many permanent staff had been bought-out of teaching commitments. Half of the ECLs were women, while four of the ECLs (2 men, 2 woman) are now employed with permanent contracts in Cambridge and elsewhere. The Department funded an extension of the contracts of two of the women to cover time out of the 3 years for maternity leave.

*"The role of ECL has given me a fantastic opportunity to teach my own lecture course, lead practical laboratory classes, and supervise students. With a CV strengthened by this experience, and with the full support of the Department, I recently began applying for permanent positions. The Department was also fully supportive during my parental leave last year, encouraged me to submit an application for promotion, and helped me secure vital funding from the Returning Carers Scheme."*

**Early Career Lecturer (woman)**

Research staff mostly join as Research

Associates (RA, Grade 7). Promotion is possible to Senior Research Associate (SRA, Grade 9), depending on achievement and availability of funding, and many Grade 9 SRAs hold personal fellowships. The Department also hosts a number of College Research Fellows who are selected and funded by Colleges, but work in association with a PI in the Department. The Department was instrumental in developing the career pathway for Research staff through the introduction of Principle Research Associate (PRA, Grade 11/12), equivalent to Reader for the more academic career path. The proportion of women research associates is shown in Figure 4.2.3 (and by Grade in Figure 4.2.4), where an increase from 15--26% women in the past 6 years is seen.

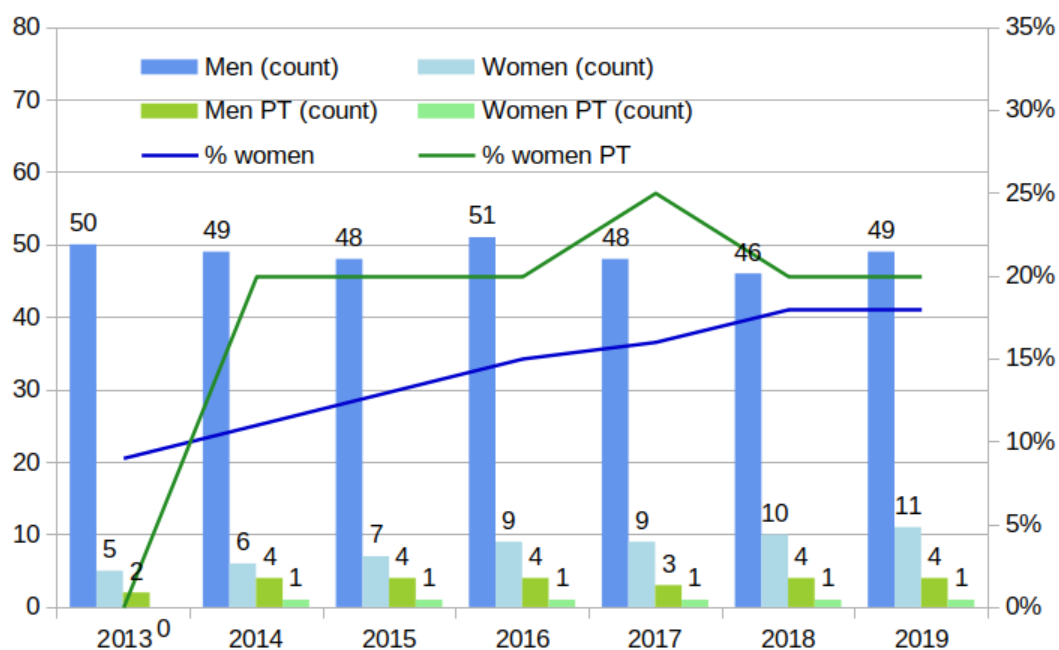


Figure 4.2.1: Number and percentage of Academic staff by gender.

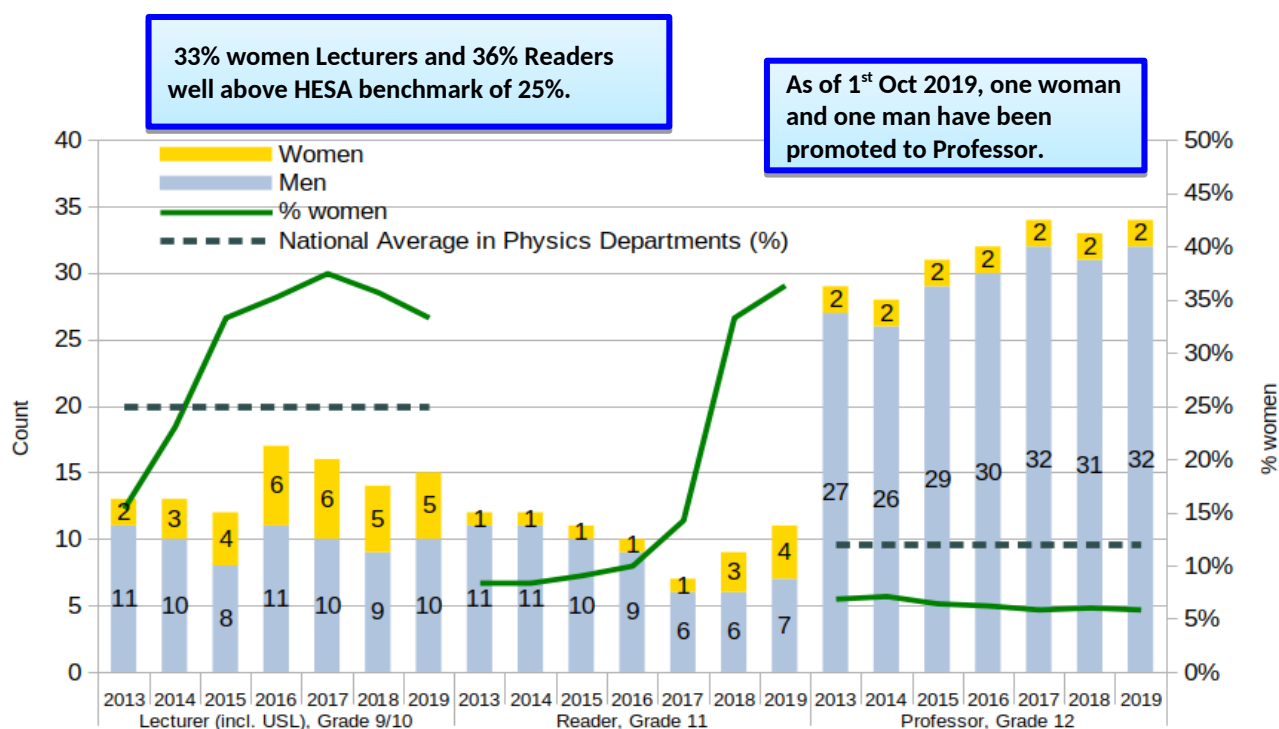


Figure 4.2.2: Percentage of women Academic staff by grade.

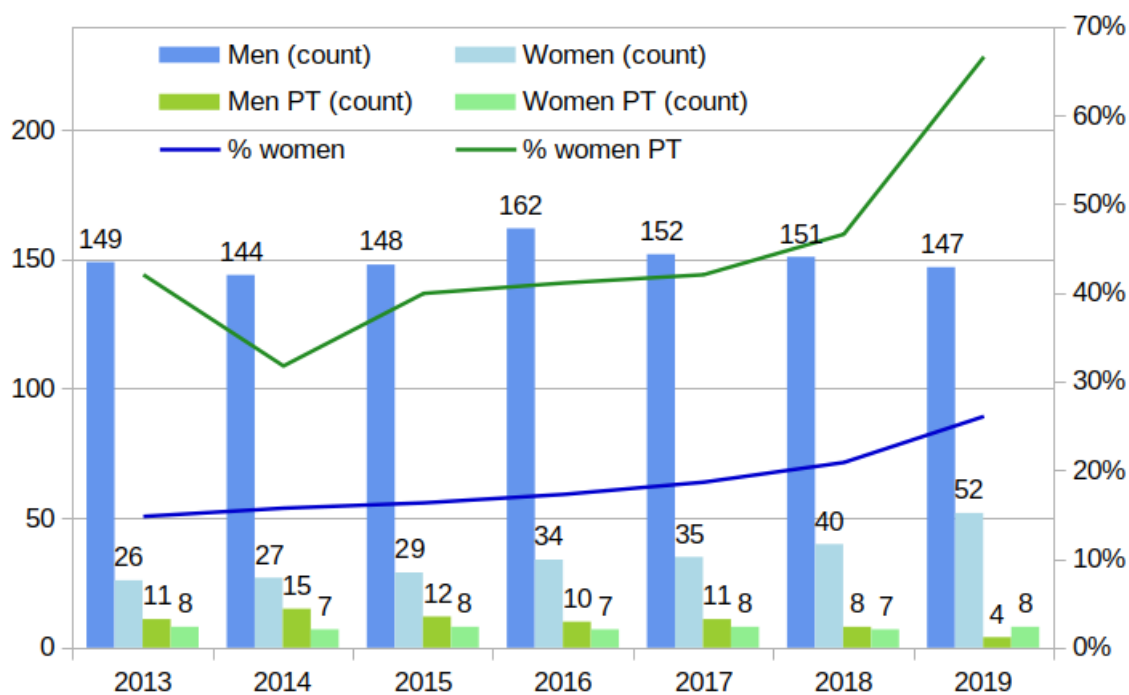


Figure 4.2.3: Research staff by gender.

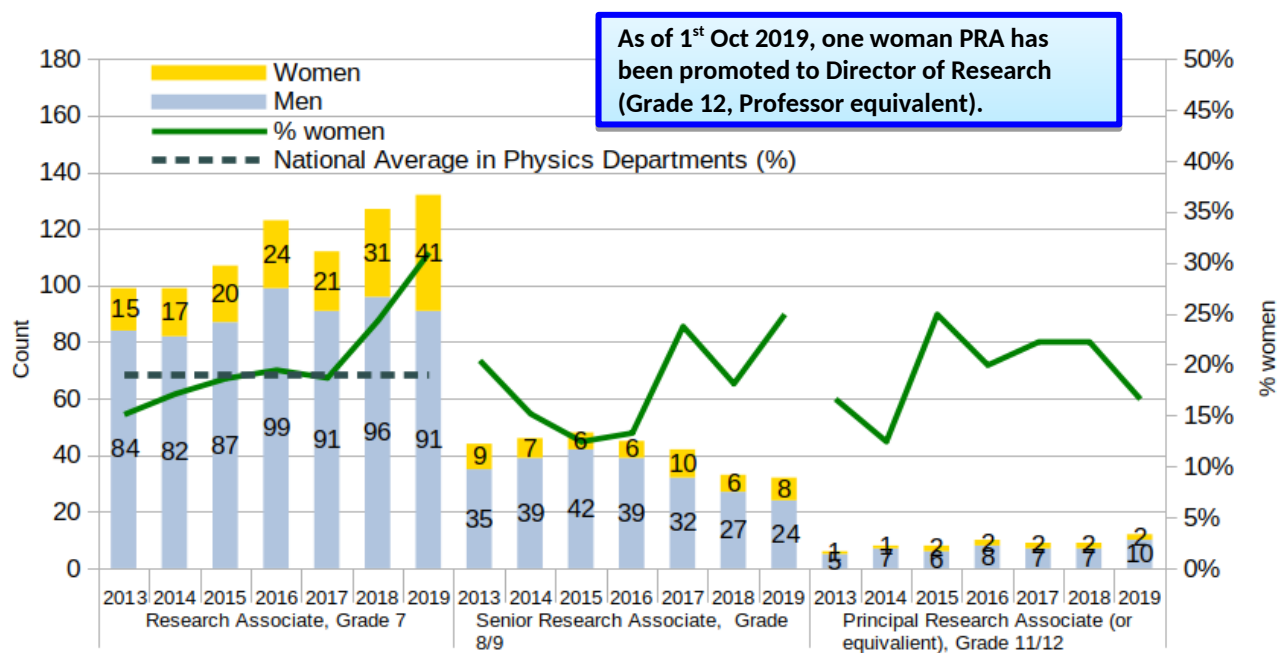


Figure 4.2.4: Percentage of women Research staff by grade. (\*or Equivalent).

- (ii) Where relevant, comment on the transition of staff between technical and academic roles.

Promotion of technical staff to academic roles is not relevant as the roles have very different responsibilities. Technical staff in Cambridge cannot be required to teach, do not act as PIs, and are generally not REF-eligible. They are therefore on a completely different career path, and can either be upgraded to a higher technical level or can apply for more senior jobs elsewhere in the University.

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

All Academic staff are employed on indefinite contracts. All Research staff (RA, SRA and PRA) are employed on open-ended contracts, which are subject to availability of funding. In line with HR best practice, a consultation process commences 90 days from the expiry date of funding, where staff are advised of the funding situation, and offered help in thinking about their next steps. On the few occasions where an exceptional case has been made to underwrite, or temporarily provide continuation of funding for an individual, the Department has provided this support where feasible. As the Department moves to a shared services provision system, the vision is to implement a far more systematic system, which considers all cases in a structured, effective way. No-one is employed on a zero-hour contract.

- (ix) Academic and Research staff 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.

Between 2013-17, 21 Academic staff left the Department: 10 men retired; 2 men took up other posts within the University, one to become Regius Professor of Engineering and one (an ECL) to a Lectureship in Engineering; and 8 men (including an ECL) and 1 woman (an ECL) to posts outside the University. All staff leaving to posts outside the University moved to more prestigious positions, such as Provost, Director of a US national laboratory, and named Chairs. The woman ECL left to become a senior Project Scientist at the European Space Observatory.

*"Following 5 years in the Department as a Research Associate, funded by a Dorothy Hodgkin Royal Society Research Fellowship, and with two rounds of maternity leave for two children, for which the HoD and Head of Research group have been so supportive, they encouraged me to apply for a Lectureship in the Department of Applied Mathematics and Theoretical Physics (DAMTP). I was successful, and now with a permanent position, I can be as supportive to women, as they have been to me."*  
**New Lecturer in Theoretical Physics (woman)**

The turnover of Research staff is shown in Figure 4.2.5. and averages 20-30% for both women and men; 97% (98%) women (men) leave due to end of contract with about half resigning before the end to move on to further positions. Other reasons include visa expiring, death in service and retirement. We will further investigate the career destinations of Academic and Research staff, their experience of the Department and the support and guidance they

Action A.6: Academic and Research staff exit survey and destinations data.

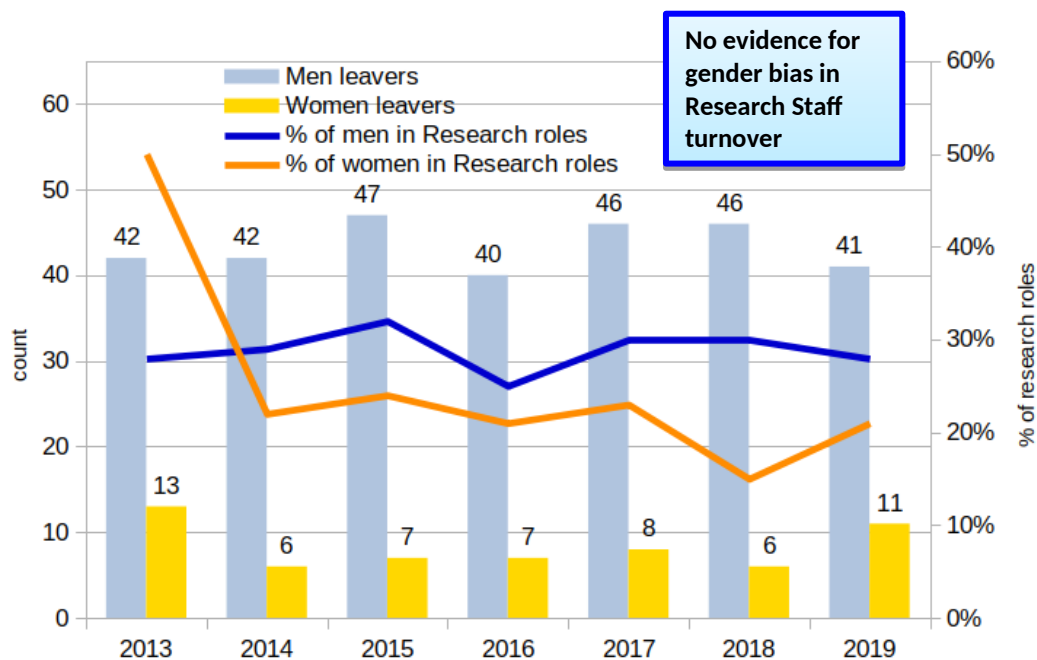


Figure 4.2.5: Turnover of Research staff by gender, i.e. the percentage of staff replaced due to staff leaving over a period of one year. Numbers are the number of staff who left.

**Highlights: Academic and Research staff data**

- A long-term target of 50% women Academic staff: equal recruitment of 50:50 women:men academics in past 5 years has led to 33% women Lecturers (compared to 25% benchmark).
- %women Research staff increased from 15% to 26%.
- Department instrumental in introducing a career pathway to PRA for more technical Research staff.

Total word count: 2501 words

## 5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

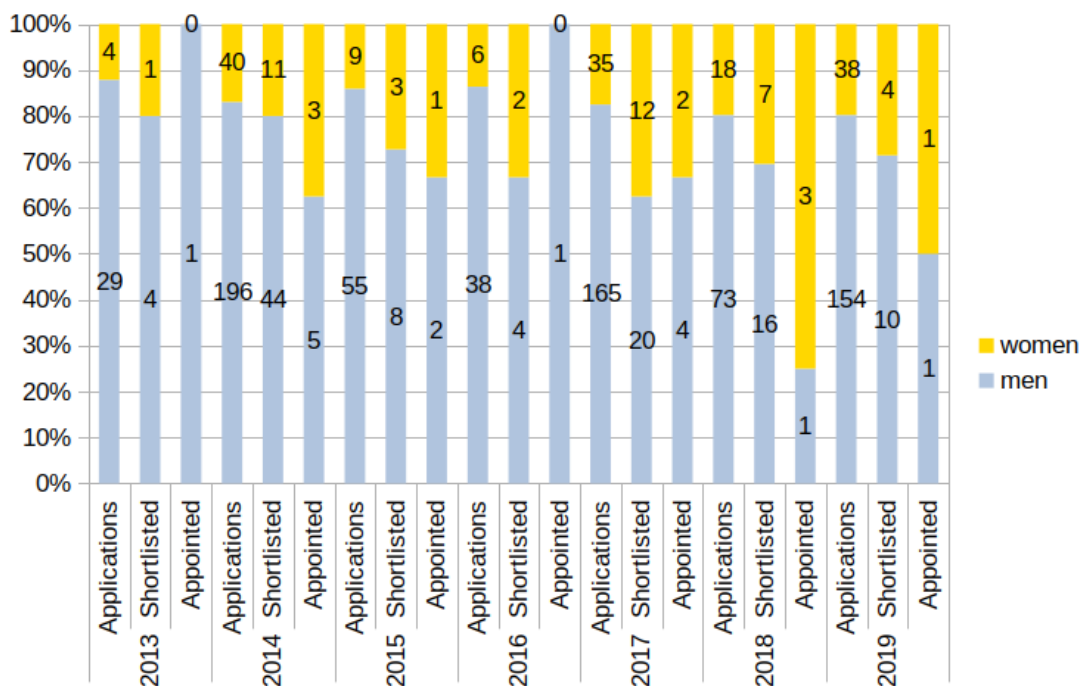
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### 5.1. Key career transition points: academic and research staff

#### (i) Recruitment

Break down data by gender and grade for: applications; long- and 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.

Since 2013, the Department has filled 25 Lectureships, including the ECLs, and has been involved with recruitment to 4 Interdisciplinary Lectureships created by the School. The recruitment pipeline is summarised in Figure 5.1.1; proportionally more women than men were short-listed, leading to 10 women and 15 men appointed.



**Figure 5.1.1: Recruitment pipeline by gender (all appointments were for Lecturers, Grade 9); 2017 positions advertised include 4 interdisciplinary Lectureships (1 woman, 3 men).**

Academics in the Department are appointed to Lectureships (Grade 9) or very occasionally to Professorial Chairs (Grade 12). Once the University has granted permission, the appointment procedure is conducted by the Department for Lectureships and by a Board, appointed centrally by the University, for Chairs. All academic positions are appointments to retirement (the University has an Employer Justified Retirement Age, currently 67 years, and this is expected to increase in the next few years). Most appointments are advertised within a particular research area and have a requirement to teach.

The Lectureship recruitment process is undertaken by a recruitment panel, normally consisting of the HoD, the DA, 1-2 experts in the research field, a teaching representative, and two externals (outside the research

area and one outside the Department); normally 2 members (~30%) of the panel are women. All panel members are required to have completed ED&I and recruitment training, and are reminded of the need to be aware of unconscious bias at the start of each meeting. The Department covers childcare/carer costs for any candidate attending interview.

The Department reviews its recruitment practices regularly and, for vacancies advertised from 2018 (6 to date), the search committee has been convened in advance of advertisement to investigate the strength and diversity of the field. Search committees have an explicit duty to ensure that the likely field of applicants includes credible women candidates, which extends to approaching potential candidates to discuss the forthcoming vacancy and encouraging them to apply (**Action C.1**).

The HoD reserves the right to restart the process if the field at any stage does not meet expectations: a large field of research excellent applicants (>30) who are committed to teaching, with a percentage of women well beyond that of the discipline as a whole. There have been two recent incidences when the HoD stopped the process due to too few candidates and a low percentage of women applicants.

During 2016/17, Val Gibson chaired a Review of Academic Recruitment as part of the University's "People Strategy". This has resulted in a major change to the recruitment process, including mandatory "Recruitment Essentials" training for all staff involved in hiring. Any appointing body is explicitly required to search for suitable women candidates; the gender balance of the body should be as close to 50% men, 50% women as possible and include a minimum of two of each gender with consideration given to the racial and ethnic diversity of the committee .

A summary of Research staff recruitment is shown in Figure 5.1.2, where the conversion rate (number of offers / number of applications) is seen to be higher for women than for men. Selection committees that use Departmental funds have embedded an equality-focussed best recruitment practice, such as that used for the Winton Scholarship competition (in 2017, 11 Winton Scholars were elected, 5 women and 6 men). The majority of Research Associates are employed on PI grants and the Department will produce guidelines to aid PIs through the recruitment process (**Action C.3**).

Over the past few years, individual members of the Department have nurtured relationships with one of the women-student only Colleges, Murray-Edwards, to pro-actively appoint a Lecturer and a Research Associate (a woman) who specifically have a track record in ED&I. We will continue to investigate further possibilities of this nature (**Action C.4**).

The Department also retains statistics on staff who voluntarily declare themselves Black and Minority Ethnic (BME); there is currently 1 BME academic (a man), and 14 women and 30 men BME Research staff. We will continue to monitor BME data and develop our adverts to attract more under-represented groups to apply for positions in the Department (**Action C.5**).

*"I was eight months pregnant when I applied for my position and had just given birth when I was invited to interview. The Department accommodated my preference for a later interview, which was very valuable to me as I was living in the US at the time and the delay meant that my newborn was old enough to travel with me."*

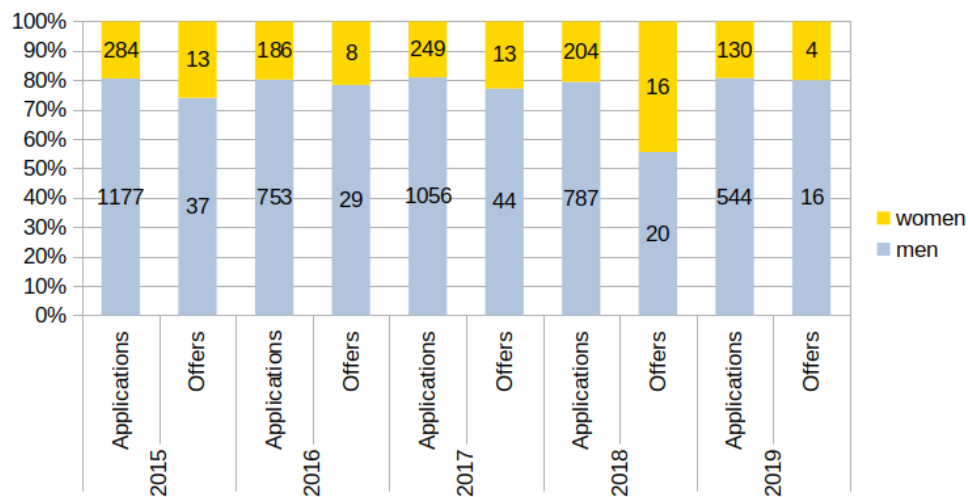
**New Lecturer (woman)**

**Action C.1:** Survey applicants, especially women, if personal contact prior to advertising an Academic post is welcoming.

**Action C.3:** Investigate individual PI practices concerning RA recruitment, and provide guidelines for best practice.

**Action C.4:** Investigate joint appointment opportunities with Colleges targeted at women.

**Action C.5:** Modify all staff job role descriptions and adverts to comply with best practice for attracting under-represented groups by gender and intersectionality.



**Figure 5.1.2: Recruitment of Research staff by gender.**

(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.

In our 2018 survey, 50% of existing Academics reported they had not undergone induction. This supports our policy that all new staff are required to undergo Departmental induction before receiving access, and in 2018-2019 100% of all new staff to the Cavendish underwent induction (mandatory ED&I training, discussion of "Our Values", Health and Safety, and direction to the University's 'Welcome to Cambridge' event and online support).

Academics receive the Departmental induction and a personal 1:1 induction from the HoD, the DA, and the Director of Undergraduate Teaching (DUT). In many cases this is an extension of the correspondence after the offer of employment has been made, in which laboratory and other start-up budgets are agreed, as well as information on relocating to Cambridge, and on other benefits of employment at the University. Termly Staff meetings, All-Faculty meetings, and PI Safety Forum keep non-inducted staff up to date.

The Department recognizes that mentoring is a vital aspect of career development. Previously, many staff reported that they found it difficult to identify an appropriate mentor or felt intimidated to ask for someone to act as mentor. The Department has since established a flexible mentoring scheme suitable for all that is facilitated by 'Mentoring Champions' who assist staff and students to find a suitable mentor. The scheme has been in place since November 2016 and a review is planned to evaluate the uptake and benefits provided (**Action D.1**).

*"I moved my research from Germany to Cambridge over a period of 6-months. Strong support from the Department enabled me to plan a series of induction meetings with key people, which made me feel very welcome."*

**New Lecturer (man)**

*"I have had some fantastic experiences with inspirational mentors who really helped me drive forward my career and seize opportunities that I would otherwise not have considered. As a mentoring champion I hope that I can connect potential mentees with suitable mentors and help them both to get the most from the relationship."*

**Mentoring champion (woman)**

**Action D.1:** Undertake a review and further promote Departmental mentoring scheme.

(x)

(xi) 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.

The University runs an annual Senior Academic Promotions (SAP) round for Academic staff (Lecturer to Senior Lecturer or Reader, and Reader to Professor). The number of promotions is shown in Table 5.1.1. Promotion criteria are: strong or outstanding evidence for sustained excellence in the three areas of research, teaching and general contribution; each must pass a threshold for promotion to be considered. It is unlikely that a Lecturer will be promoted unless they have ~3 years of teaching experience. We anticipate our recently appointed women Lecturers will be promoted to Reader within the next 3 years.

Promotion from Lecturer to Senior Lecturer in the sciences is generally used by those taking a more teaching-focussed approach to their career. The University is currently consulting on a new approach to the use of this grade, which might result in more clarity as to its purpose, and in more applicants applying for promotion via this route.

All eligible candidates receive the SAP booklet. The Department is sent a list of those eligible, and the HoD reviews suitability for promotion and actively encourages applications from those who are likely to meet the criteria, even if they do not put themselves forward. All eligible women candidates are invited to a discuss with the HoD, who reviews their CV, teaching and other duties with a view to advising them on both their general career progress and their promotion prospects. Two women candidates who were not intending to apply have been successful following this intervention. Those who do not apply are given guidance on how best to progress, and where appropriate their duties are adjusted. Candidates also have access to the University's CV mentoring scheme that allows them to discuss application paperwork with an experienced senior academic from elsewhere in the University.

**Table 5.1.1: Number of Academic and promotions by gender. During the period, the 4 eligible USLs did not apply for promotion. Please note applicants may have submitted multiple applications over a few years before success.**

Year	Number of Applications		Number of Promotions	
	Women	Men	Women	Men
<b>Lecturer to Senior Lecturer</b>				
2018	2	1	1	0
<b>Lecturer to Reader</b>				
2013	0	4	0	2
2014	0	2	0	2
2015	0	1	0	1
2016	0	1	0	1
2017	2	2	2	2
2018	1	1	1	1
<b>Reader to Professor</b>				
2013	0	1	0	1
2014	1	2	0	2
2015	1	2	0	2
2016	1	3	0	2
2017	0	1	0	1
2018	1	2	0	1

**As of 1<sup>st</sup> Oct 2019, one woman and one man have been promoted to Professor.**

Both of the Department's women Professors sit on SAP panels in STEMM subjects and influence monitoring and changes through their respective gender equality roles. In 2016/17, the HoD chaired a Review of Academic Career Pathways as part of the University's "People Strategy"; the outcomes are currently being implemented. This group inspected data from across the University for gender bias at all stages of the process. A key recommendation was that contributions other than research should be treated more flexibly in order to avoid promotion being blocked for those with non-traditional career paths, predominantly followed by women. The recommendation was adopted and during the consultation process the Department successfully put forward an established woman academic for promotion, citing the evidence that she has been unreasonably blocked by the current system. This action has opened the way for more women candidates to reach the higher grades on the pay scale and we expect this to impact women in the Academic pipeline in coming years.

Research staff are contacted directly each term requesting applications (either self-nominating or by the PI) for promotion and salary increments. Support for promotion from RA to Senior Research Associate (SRA) is

provided by the HoD and Cavendish Board, and endorsed by the School, subject to funding through the respective grant. SRAs are expected to have at least 3 years postdoctoral experience; and be on an unequivocally rising research trajectory, or providing key specialist or professional scientific expertise to a project. The Department has few (1-2) SRA promotions per year; most staff either move on or apply for personal fellowships. Between 2013-17, 2 women and 14 men have been promoted from RA to SRA.

Promotion from SRA to PRA was re-introduced in 2014 due to the Department's request for a career pathway for our more technical Research staff. The process, Senior Researcher Promotions (SRP), runs in parallel with the SAP. Since 2014, 9 RAs have applied for promotion to PRA; 6 men and 2 women have been successful.

Any single Research staff is eligible for 3 salary increments per annum provided finances are available; the HoD writes a supporting letter to the University. Between 2011-18, 36 men (24%) and 9 women (30%) Research staff received on average 2.2 and 1.6 salary increments, respectively. We will continue to review and encourage Research staff promotions (**Action C.6**).

**Action C.6:** Review and encourage Research staff promotions through the Staff Review and Development process.

(xii) [Department submissions to the Research Excellence Framework \(REF\)](#)

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

The Department's policy for the REF has been to submit all eligible staff who are sufficiently research active to have qualifying outputs. All Departmental REF panel members are ED&I trained. The submissions by gender for the 2008 RAE and 2014 REF are shown in Figures 5.1.3 and 5.1.4. In 2014, 18 out of the 19 eligible women staff (95%) and 125 out of the 145 eligible men (86%) were submitted, compared to the University-wide submission of 80% women and 87% men. The University and Department do not use REF status as a metric in promotions, nor move staff into different categories in response to the REF. The Department is actively involved in the development of the Cambridge University-level REF 2021 Code of Practice.



Figure 5.1.3: RAE2008 and REF2014 submissions by gender.

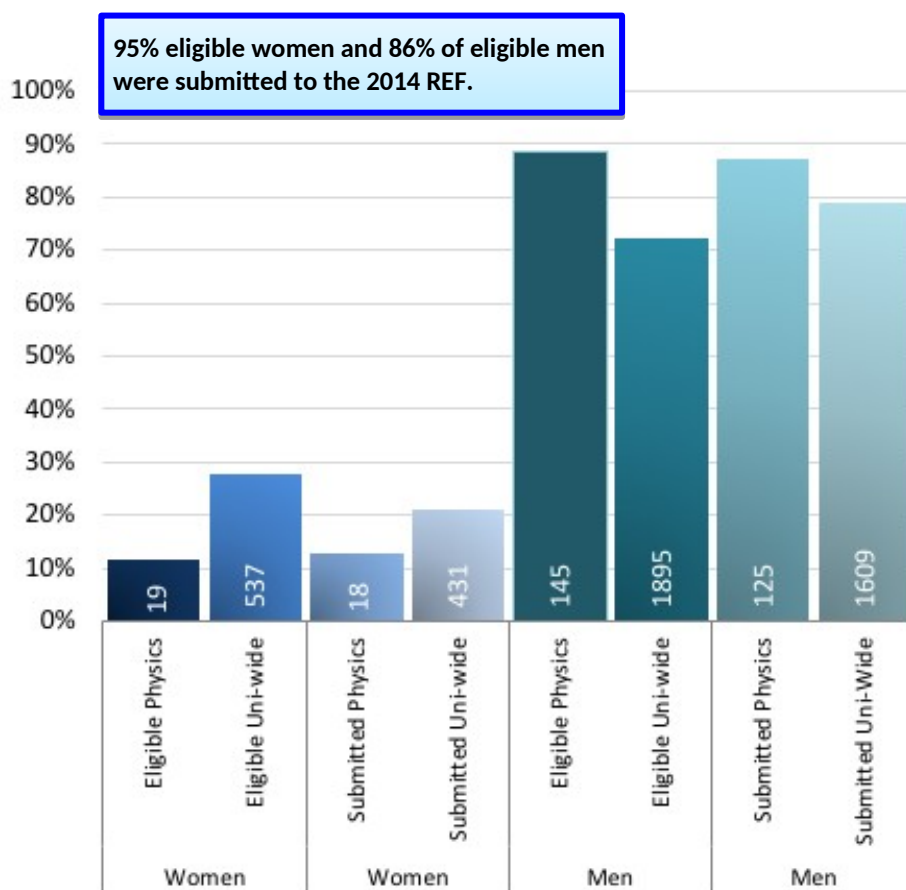


Figure 5.1.4: Percentage and number of total eligible physics staff compared with physics staff whose work was submitted to REF 2014 by gender, compared to University figures.

**Highlights: Career transition points: Academic and Research staff**

- Proactive recruitment processes to identify women candidates prior to advertisement, supplemented by “Recruitment Essentials” training.
- 4% of women appointed from the pool of applicants to RA posts compared to 3.4% men.
- Joint Academic and Research staff appointments targeted at women with a women-only College.
- Mandatory Departmental induction for all new staff, containing mandatory ED&I training.
- The Department is driving change in Senior Academic and Researcher Promotions.
- All eligible staff are submitted to the REF; in 2014, 95% women submitted compared to 80% for the whole University.

## 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.

#### a. Recruitment

All PSS positions are advertised on the University and national jobs website; we also use agencies for highly-skilled technical staff. The recruitment panel usually consists of the line-manager and 1-2 other staff members; and for appointments above Grade 4, an HR Manager and an Academic. All panels are of mixed gender; and members are required to complete the ED&I training, receive guidance on procedure and best practice, and the Chair a copy of guidance for Chairs. A summary of PSS recruitment since 2015 is shown in Figure 5.2.1.

The breakdown of PSS staff by gender is shown in Figure 5.2.2. The fraction of PSS in the Department who have declared they are BME in 2019 is 14% (8%) women (men), and the fraction who have undeclared ethnicity is 7% (15%). The declared fractions, smaller than the local Cambridge workforce fraction of 18%, suggest that women are more likely to declare (**Action C.7, E.6**).

**Action C.7:** Run BME focus groups and trial advertising in local newspapers and job web-sites.  
**Action E.6:** Launch Cavendish LGBT+ and BME networks to support minorities within the Department.

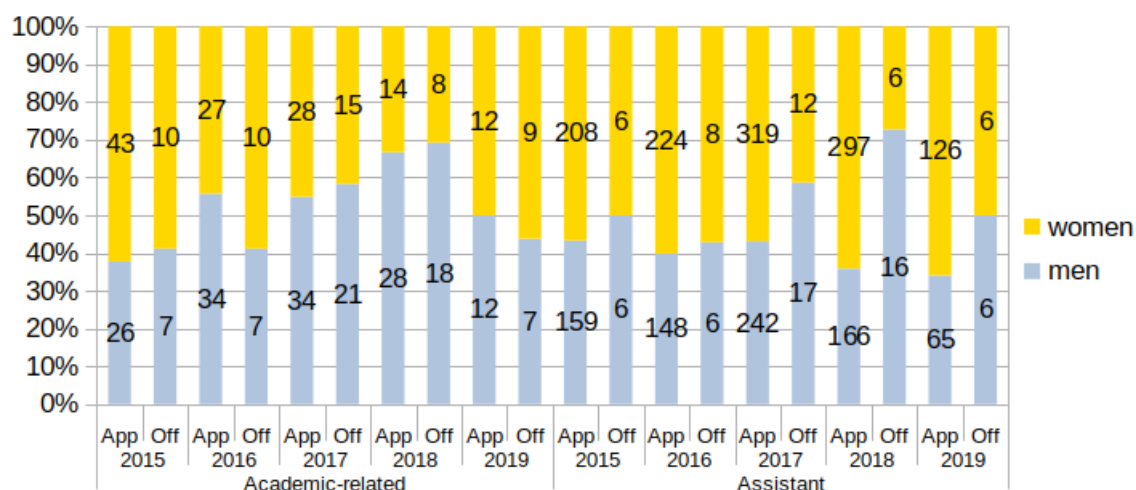


Figure 5.2.1: Recruitment of PSS staff by gender.

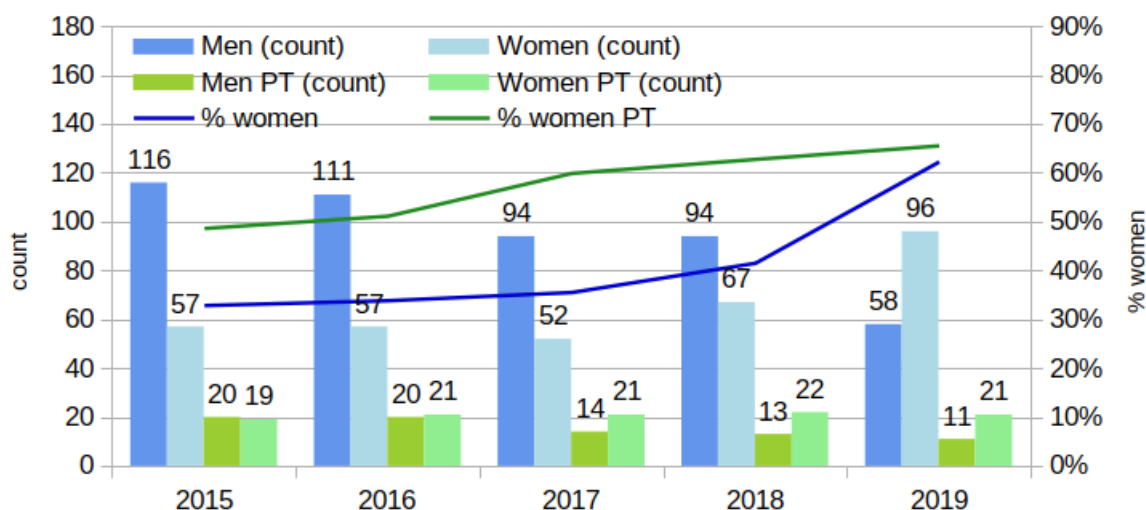


Figure 5.2.2: PSS staff by gender.

#### b. Induction

When joining the Department, all PSS and visitors attend the mandatory Departmental Induction training session, which covers all key areas of new employment, including practicalities like pay dates, key contacts, IT usage, staff benefits, and the mandatory ED&I training, “Our Values”, and Health and Safety. To ensure that all new staff and visitors are captured at the point of entry, they only gain access if they attend this training. PSS are also offered mentors through the Department’s mentoring scheme.

100% (80%) women (men) Academic-related staff and 90% (78%) Assistant staff said they had attended an induction.  
**2018 Academic Staff Survey**

#### (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.

Our PSS are employed within the University’s HERA role-based system, and cannot be promoted beyond their current grade unless their job is re-graded or they move to a more senior role advertised in the Department or University. Key members of the Department are influencing the University’s investigation of gender bias in job role descriptions as part of the University’s gender pay gap studies (**Action H.2**), and the

“My role has recently been re-graded from Grade 3 to a Grade 4. My application was fully supported by my line-manager who felt this was in recognition of my contribution over the past few years. This upgrade has made me feel a valued member of the team and that all my hard work has paid off.”

**HR Assistant staff (woman)**

Department considers all job role descriptions and advertisements to attract under-represented groups by gender and minority groups (**Action C.6, C.7**).

PSS can receive pay increments for good performance beyond their role requirement, if nominated by themselves or their line-manager in the annual pay increment round. During 2013-18, 36 men and 23 women Assistant staff were awarded pay increments with success rates of 60% and 70%, respectively. Similarly, 4 men and 7 women Academic-related staff were awarded pay increments with success rates of 88% and 67%, respectively.

The Department hosts 4 apprentices through a pilot apprentice scheme (50% women), and is looking towards hosting apprentices in more parts of the Department (**Action C.8**).

The Department has very few (1-2) incidences of PSS who come to the end of their existing contracts. The University offers a redeployment system that attempts to place people in new roles. The University HR Advisors meet with individuals and offer them advice and the support of the job advertising service in restructuring or redundancy situations.

**Action C.8:** Host equal numbers of W/M and minority groups' apprentices.

**Action H.2:** Key members of the Department will play a key active role in the University 's review of the Gender Pay Gap and job roles.

**Highlights: Career transition points: Professional and support staff**

- All PSS recruitment undertaken using University procedures for best practice.
- All new staff attend an induction, with mandatory ED&I training.
- PSS take advantage of the Department's Mentoring scheme.
- Women Assistant staff successful at gaining pay increments with 70% success rate.
- Department hosts apprentices (1 man, 1 woman) and is looking to host equal numbers of women and men in the future.

### 5.3. Career development: academic and research staff

#### (i) Training

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

The University runs a widely-acclaimed Personal and Professional Development (PPD) Programme (free to University members) for all staff at all career levels, covering a broad range of themes: induction, teaching skills, leadership and management, personal and professional skills, and pre-retirement. The Springboard programme for women also addresses communication, assertiveness, self-confidence, improving work/life balance and developing a positive attitude.

Table 5.3.1 shows a summary of the courses attended by our staff. In general, women attend proportionally more training sessions than men. The main focus for Academic staff is: leadership and professional development; and personal skills (women). For Research staff, the focus is: teaching skills; induction (men); and personal skills and Springboard (women).

In our 2018 survey, 67% (63%) Academic and Research women (men) staff reported that they were satisfied with training and development opportunities. The Department has included a discussion of training in the SRD process and will measure the impact through future staff surveys and focus groups (**Action D.2**). From 2018, PIs can bid for a postdoc training budget on research grants of £500 p.a. per researcher; the University is discussing how to implement 10 days paid training for each Research staff member. The Department will embed this in the SRD process (**Action D.3**).

In the Department, all staff are required to complete the online ED&I training course: 100% of Academic staff and 46.5% Research staff have completed; the rest will be followed-up individually, or trained during induction (**Action D.4**). We are targeting the low completion rate for Research Staff by making the online EDI training a compulsory part of induction. The Recruitment Essentials training has been made compulsory for all staff involved with recruitment (**Action D.5**), and we continue to run frequent Unconscious Bias training workshops (**Action D.6**).

In our 2014 survey, 30% staff responded that the University provision of training for line-managers did not meet their needs. The Department engaged PPD in the creation of a new Line Manager Training module, and has worked with PPD facilitators to deliver the course. It is now being rolled out more widely across the University. The training, facilitated by the PPD team, started in July 2016. Four

training sessions have been held so far (focussing on PIs), and covering the employee life-cycle. In 2017 a session specifically covering SRD was held in the Department for reviewers and reviewees. The total number of staff trained so far is 39 men and 20 women. The Department will continue running 4 sessions a year, with mandatory attendance for all line-managers, with a next survey target of 100% staff satisfaction (**Action D.7**).

100% women Academic staff know how to find training and development opportunities in the University.

**2018 Academic Staff Survey**

83% women and 73% men feel they are treated with respect by their line-manager.

**2018 Assistant Staff Survey**

**Table 5.3.1: Training and Development course sessions attended by staff type and gender (green >20%, orange ~10-20%).**

Course description	Academic		Research		Academic-related & Assistant	
	Women	Men	Women	Men	Women	Men
Admissions			9%	12%		
Teaching skills (supervising)	17%	15%	22%	20%	20%	40%
Induction		3%	9%	33%		
Recruitment					4%	<1%
Team management	8%		2%	2%	7%	2%
Unconscious bias & Dignity@work					2%	<1%
Personal skills (e.g. communication, assertiveness)	17%	4%	43%	31%	27%	21%
Springboard (women-only)			15%		10%	
Professional Development	24%	28%				
Leadership	24%	33%			9%	12%
Pre-Retirement		4%			5%	19%
Professional Skills & Information	13%	11%		3%	17%	5%
<b>Total number of sessions</b>	<b>25</b>	<b>72</b>	<b>54</b>	<b>122</b>	<b>188</b>	<b>130</b>
<b>% of sessions by staff type</b>	<b>26%</b>	<b>74%</b>	<b>31%</b>	<b>69%</b>	<b>59%</b>	<b>41%</b>
<b>% by staff type</b>	<b>17%</b>	<b>83%</b>	<b>18%</b>	<b>82%</b>	<b>36%</b>	<b>64%</b>

**Action D.2:** Evaluate training guidance received in the SRD process and take-up through staff feedback by surveys or focus groups.

**Action D.3:** Embed Research staff training budget in SRD process.

**Action D.4:** Follow-up Research staff who have not undergone ED&I training.

**Action D.5:** Make Recruitment Essentials training compulsory for all involved with recruitment.

**Action D.6:** Continue to host Unconscious Bias workshops.

**Action D.7:** All line-managers to attend line-management and SRD training.

(xiii) **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/development review training offered, and the uptake of this, as well as staff feedback about the appraisal/development review process.

The Department's SRD is designed to support and facilitate career development. It involves discussing ways to develop a staff member's work and ways in which obstacles to progression can be removed. It is an essential part of the University's commitment to developing staff, with equality of opportunity.

The process works for all categories of staff: Academic staff are assigned a more senior Academic by the HoD (who is himself reviewed by the Head of School); and Research staff are reviewed by their line-manager or, if requested, by an independent member of Academic staff. The SRD time-stamp begins at the end of all staff members' probation. All Academic staff and PSS are reviewed bi-annually. Research staff are

offered an annual SRD and reviewed 6 months after end of probation and 6 months before end of contract. The HoD and DA look through all feedback forms annually to identify any common issues.

In our 2013 AS Gold submission, we had a single SRD process that applied to all categories of staff. The response from our 2018 focus groups and appraisers was that the process was letting down specific staff groups, due to lack of reviewer training. The Department therefore reviewed the SRD process and relaunched with processes adapted to the needs of each of the four main staff groups (**Action D.8**).

**Action D.8:** Measure the effectiveness of the SRD process through staff feedback by surveys or focus groups.

(xiv) [Support given to academic and research staff for career progression](#)

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

All staff can benefit from the University PPD Programme at all career levels; activities include a grant submission support scheme, skills development and leadership and management training.

The Department actively addresses the need for support and advice at key career transitions, such as careers outside academia; from postdoc to a more senior post; securing an academic position and promotion within academia. Many positive actions in this area have been put in place:

- the SRD process and mentoring scheme;
- identification and encouragement of high quality women applicants, through mentoring and SRD, to apply for available posts, including personal fellowships;
- targeted assistance for fellowship applications, particularly from women, including mock-interviews offered by the HoD for short-listed candidates;
- guidance on how to write research proposals;
- a monthly Research Surgery in the Department, facilitated by a senior University contracts officer; and
- knowledge exchange facilitators provide a point of contact for companies and organisations, support development of research proposals, and hold associated workshops and events.

The University also provides many forums for advice, especially through the University Careers Service, which runs surgeries in the Department, and a CV mentoring scheme. The University also opened the widely-acclaimed Office for Postdoctoral Affairs in 2013 that runs a Researcher Development Programme. WiSETi run career development seminars for early-career women researchers, topics include confidence building in the workplace, “Speaking up and saying no” and “working smarter not harder”, while the Aurora Initiative supports women in fulfilling their leadership potential; these are widely publicised and encouraged within the Department.

(xv) [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).

Student pastoral care, such as personal tutorial advice, direction of studies, womens' advisor, and a teaching staff contact (independent of the Department) takes place within the College environment. This is the case for both undergraduate and postgraduate students. Undergraduate and MAST students are encouraged to discuss teaching matters with their course supervisors and send comments through their student representatives (1 man, 1 woman per year group) to the Consultative Committee, which meets once a month in term. The majority of the UTOs in the Department are College Fellows and many act as Director of Studies and/or Tutors. In addition, regular Directors of Studies meetings are held, at which concerns emerging through the College channel can be fed back to the Department.

The support provided by the Department applies to both genders; we pro-actively augment activities by sending personal invitations to women students for events that might benefit them. All students benefit from the University's Careers Service that regularly holds Departmental surgeries.

The Department runs an annual Postgraduate Opportunities Exhibition week, giving potential postgraduates an opportunity to see the research in the Department and discuss possible research projects with supervisors. Within this we hold women-only student sessions with academics and postdocs to confidence build and encourage them to consider PhD research. The HoD is committed to supporting women to attend the annual Conference for Undergraduate Women in Physics (CUWiP), where our senior women often give talks or are panel members (**Action B.20**).

In addition to their primary supervisor, all PhD students are assigned an independent advisor, and a second supervisor if they are undertaking interdisciplinary research or require supervision in a laboratory. In the 2018 survey, only 43% of women and 29% of men felt they received regular and constructive feedback on their performance. We will improve support for all MRes, MPhil and PhD students (**Action B.21**).

PhD students are encouraged to send comments through their representatives on the Graduate Committee each term, and they receive a transferrable skills log as part of their arrival package, monitored through the graduate office. We will improve the guidance for final year PhD students (**Action B.22**) and provide workshops to help thesis writing and plan future careers (**Action B.23**). Each year, the Department organises a graduate student alumni event, where ex-PhD students come and talk about their careers (**Action B.24**).

The Department avidly promotes the University's "Breaking the Silence" initiative and runs workshops for all students. Our zero-tolerance bullying and harassment policy is published in the undergraduate student handbook, and we have assigned 4 volunteer harassment officers (1 woman and 2 men Academics, and 1 woman undergraduate) for all our students to contact. We have rolled-out compulsory ED&I training to all students by informing them of our policy prior to arrival in Cambridge and at our annual induction days.

**Action B.20:** Support undergraduate women to attend CUWiP and similar events, and offer to host CUWiP

**Action B.21:** Improve support for MRes, MPhil and PhD students.

**Action B.22:** Final year postgraduate review with Supervisor or Advisor.

**Action B.23:** Workshops for final year PhD students (writing, fellowships etc).

**Action B.24:** Annual postgraduate alumnae event.

(xv) 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.

From 2015-2019, 17% of Departmental research grants have been submitted by women Academic and Research staff, who are very successful at securing funding. Academic and Research staff are encouraged by the HoD and PIs to apply for a wide variety of grants from different sources; the first point of contact is the Department's grants team. For large grants, senior colleagues in a close research field will look at draft applications and provide feedback. When interviews occur, mock interviews are organized by the applicant and staff provide feedback. Academic staff also encourage early-career researchers to apply for a wide variety of early-career funding schemes. Researchers receive feedback on their draft applications, and mock interviews where appropriate. Feedback where grants are not successful is again offered by senior academics. In 2019 a more formal grant support system led by a senior Academic was put in place to review and provide feedback on grant applications before submission. The number and value of grant applications are shown in Figure 5.3.1 and Figure 5.3.2. In earlier years men have a higher success rate than women, though this has improved recently, with a similar success rate for men and women applicants in 2019. Men used to be awarded a higher share of the grant application values, but this trend has disappeared, and perhaps reversed in recent years.

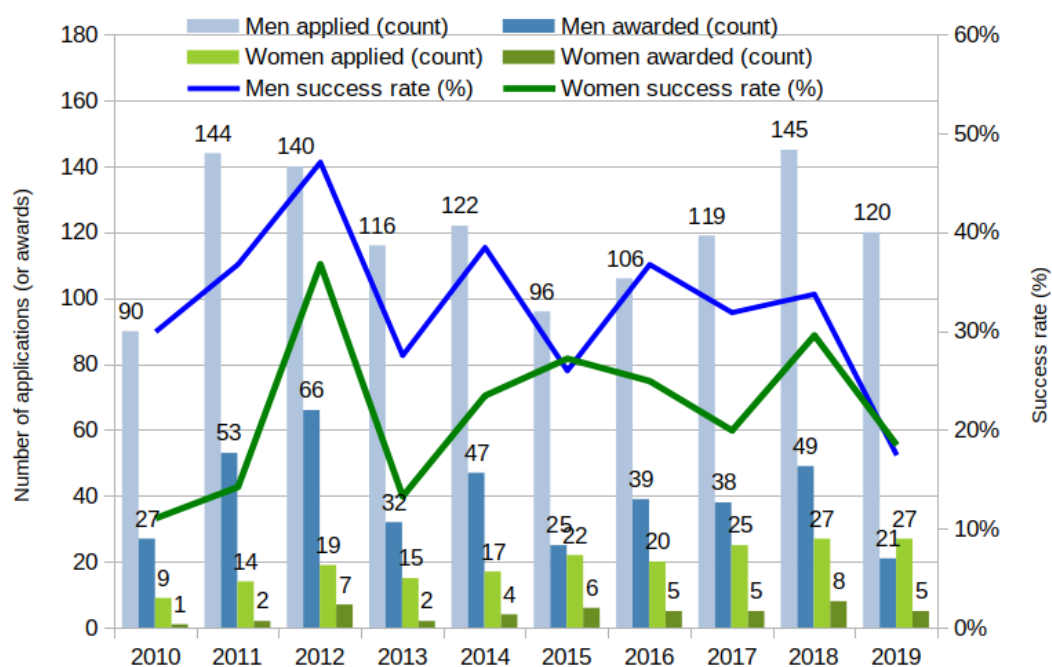


Figure 5.3.1: Number of grant applications and awards.

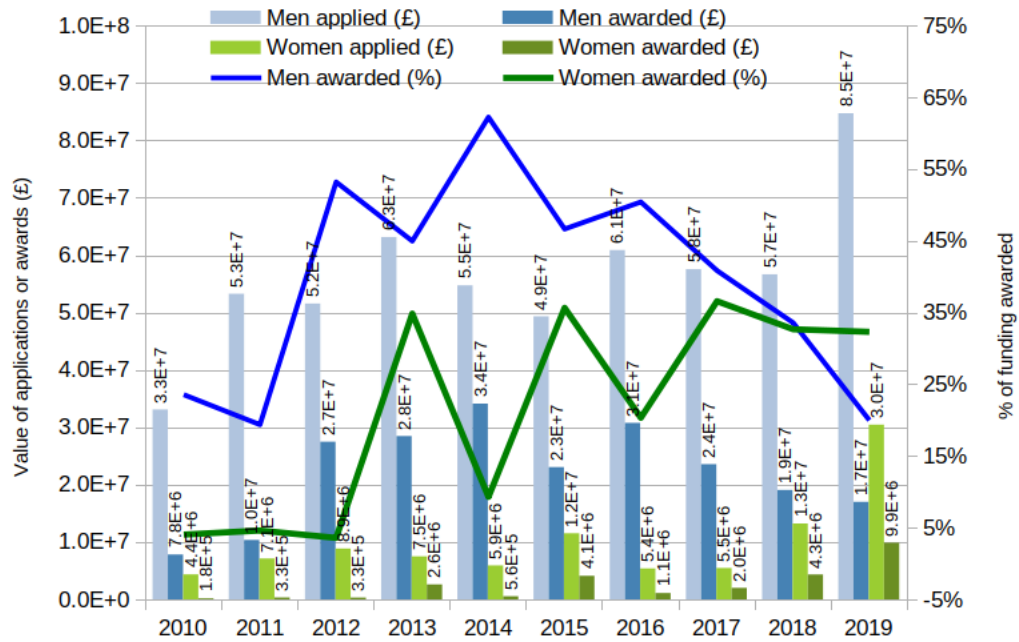


Figure 5.3.2: Value of grant applications and awards.

## 5.4. Career development: professional and support staff

### (i) Training

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

The PSS attend the University's PPD programme, which includes role-specific skills, behavioural attributes, administrator development and technician skills, as well as job share and secondment opportunities. A summary of the courses taken is given in Table 5.3.1. Women PSS benefit proportionally more than men. The main focus for PSS is: personal skills, teaching and leadership; professional skills and team management (women); and pre-retirement (men). In addition, 18 women PSS have benefitted from the Springboard programme; where our senior women regularly deliver their own personal stories and insight.

*"Whenever I asked about an extra training course or qualification, it has not only been welcomed, but fully encouraged and pushed forward by my line-manager and colleagues. I have no doubt that this ongoing support and encouragement from the Department has allowed me to progress from an apprentice in the Mechanical workshop fresh from school to a Senior Technical Officer running a brand new laboratory."*

**Technical staff (man), on training**

Our 2018 survey results show that women PSS are well-informed, although the Department needs to further promote opportunities, especially to those in technical and support roles (**Action D.10**). The survey also evidenced that only 66% (35%) of women (men) PSS were satisfied with the opportunities they receive. We therefore need to investigate whether training topics are missing from the University programme or staff are not receiving personal development guidance through the SRD process (**Action D.11**).

*"The 4-day Springboard programme built my confidence in my ability to deal with assertive academic colleagues, and helped me have a better understanding in dealing with our less confident undergraduate students. I made some good contacts across the University, which allows me to share experiences and get support"*

**Assistant staff (woman), on training**

The Department requires all PSS staff to complete the online ED&I training course; and, if involved in recruitment, the Recruitment Essentials training: 96% Academic-related and 70% Assistant staff have completed ED&I training, the rest will be followed-up individually, or trained at induction (**Action D.1**). In addition, all line-managers have to attend the Departmental line-management and SRD training.

90% women and 62% men PSS know where to find training and development information.

**2018 PSS Survey**

**Action D.10:** Promote training and development opportunities to all PSS, including those in technical and support roles.

**Action D.11:** Run focus group on PSS training support to evaluate training opportunities and guidance received through SRD process.

(xvi) 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/development review training offered, and the uptake of this, as well as staff feedback about the appraisal/development review process. Support given to professional and support staff for career progression

The SRD process is described in Section 5.3(ii) and the Departmental line-management and SRD training in Section 5.3(i) and 5.4(i). All PSS undergo an SRD with their line-manager every 2 years. The process has a time window, and if Reviewers have not conducted the SRD within the period, they are followed-up individually by the DA and HoD. We will evaluate the effectiveness of the re-launched SRD process through staff feedback by surveys and focus groups (**Action D.8**).

*"I thought [the SRD] was really useful... you just update your CV, meet with your line-manager and get a view on what you're doing and how you're doing it, as well as tips for future career development."*

**Assistant staff (man), on the SRD process**

**Highlights: Career development: Professional and support staff**

- 18 women PSS have taken full advantage of the Springboard programme.
- Mandatory for all PSS to undergo ED&I training, and line-managers to attend line-management and SRD training.

## 5.5. Flexible working and managing career breaks

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

The Department is aware that staff and students may take leave for childcare and non-childcare reasons. The needs of undergraduate students are the responsibility of the Colleges; the Department provides support when requested. In the 2018 survey, 20% of postgraduates said they had taken parental leave while studying. In order to take leave a postgraduate informs their College and the Departmental Graduate Office to request intermission to their studies (**Action F.1**). In the 2018 staff survey, we also found that 50% (37%) of Academic women (men) and 38% (21%) of PSS had childcare responsibilities; and 17% (29%) of women (men) have caring responsibilities not involving children. We have updated our policies and procedures, where necessary, to cater for the needs of non-childcare leave for staff members (**Action F.2**).

**Action F.1:** Ensure that postgraduate students taking caring leave are treated the same way as staff and that they receive support on return.

**Action F.2:** Update the Department's policies and procedures to cater for the needs of staff taking any sort of caring leave.

### (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.

The University has a clear statement of policies for all staff considering maternity, paternity, shared parental, and adoption leave. All staff inform their line-manager of their intent to take leave. The Department offers a 1:1 meeting with the HR Manager for all staff prior to leave to discuss individual needs, such as antenatal appointments and car-parking. A risk assessment is carried out for all pregnant staff. The HR Manager advises on reduced hours and liaises with line-managers concerning additional cover if required.

### (xvii) Cover and support for maternity and adoption leave: during leave

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

All staff going on maternity or adoption leave are asked what level of contact they wish to have while on leave. They also receive information relating to Keeping in Touch (KIT) days; the Department funds KIT days taken while on unpaid leave, and accommodates any reasonable requests for extra support. On leave staff can contact the HR Manager for 1:1 advice at any time. They will be kept informed of any developments or news from the Department via email. The HR Manager will contact them towards the end of their leave to ensure they have all the information needed concerning return to work and the various options for return. The take-up of KIT days is likely to be under-reported, especially among Academics where their usefulness is not so clear, and we will use a recent University survey on parental leave to understand such issues.

The Departmental policy is that the teaching load for women Academic staff taking maternity leave is covered by other existing staff in their absence; arrangements for research responsibilities e.g. line-managing postdocs and postgraduate student supervision are covered by others in a similar research field. As a large department, the additional workload can usually be distributed between UTOs not on leave. We have not had any pushback from teaching staff about this policy.

(xviii) **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.

On return from maternity leave women academics are relieved from lectures in the first term and no new lecture courses are assigned in the first 12 months. For those Research staff employed on Research Council/ other funding, maternity leave is given according to the terms of employment. The Department funded the cost of maternity leave for Early-Career Lecturers by extending the length of contract.

All staff have good access to childcare through the University nurseries (one located adjacent to the Department) and the University play scheme, which runs during school holidays. The University runs a Returning Carers Scheme, which can be tailored to individual needs, e.g. providing teaching “buy-out” or covering the cost of family member/nanny to accompany a mother to conferences. Our women academics have been successful, some several times, securing funding from this scheme. The University also offers a Salary Sacrifice Scheme, which in effect provides a contribution to tax-free nursery provision.

The Department has baby-changing facilities, high-chairs in the canteen, and provision of a quiet room for nursing mothers. The Department has a Child Policy that allows children into the public areas, provided they are accompanied by a carer, and babes-in-arms into offices.

*“The Department enthusiastically supported my successful applications to the Returning Carers Scheme, which allowed me to give presentations and keynote talks at several conferences following the birth of my children.”*

**Research Associate (woman)**

*“The Department has been very accommodating with my return to work. I have returned on a part-time basis, brilliant for child-care and work life balance. I have also been provided with a private room that I use to express.”*

**Assistant staff (woman), returning from maternity leave**

(xix) **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.

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

The maternity return rates for Academic and Research staff, and for PSS, are shown in Tables 5.5.1 and 5.5.2, respectively. All Academic staff have returned to work following leave, and 4 Research staff left on return to Academic or senior research positions. The PSS who left on return moved to more convenient jobs nearer home; no PSS staff left between 6-18 months following return from leave.

**Table 5.5.1: Academic and Research staff maternity return rate.**

		Return information			
	Number taking maternity leave	On leave	Left within 6 months	Left between 6-18 months	Still employed
2012	3		1 (33%)	1 (33%)	1 (33%)
2013	2		2 (100%)		
2014	1				1 (100%)
2015	2				2 (100%)
2016	4		1 (25%)		3 (75%)
2017	4			1 (25%)	3 (75%)
2018	2				2 (100%)
2019	2	1 (50%)			1 (50%)

**Table 5.5.2: Academic-related and Assistant staff maternity return rate.**

		Return information			
	Number taking maternity leave	On leave	Left within 6 months	Left between 6-18 months	Still employed
2012	1		1 (100%)		
2013	4		4 (100%)		
2014	1				1(100%)
2015	3		1 (33%)		2 (67%)
2016	1				1 (100%)
2017	3				3 (100%)
2018	2				2 (100%)
2019	1	1 (100%)			

(xx) **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 are encouraged to contact the HR Manager for advice on parental and shared parental leave, and inform their line-manager of their intent to take leave. Table 5.5.3 shows the uptake of parental and shared paternity leave from 2012-2019, where shared parental leave has been taken by 8 men in the department since 2016. Two members of Assistant staff have taken parental leave between 2012-2019. We will further promote Shared Parental Leave and Flexible working opportunities to all staff (**Action F.3**).

**Action F.3:** Further promote opportunities to all staff for flexible working and shared parental leave.

**Table 5.5.3: Paternity and Shared Parental leave uptake by men**

	Academic and Research Staff		Academic-related and Assistant Staff	
	Number taking paternity leave	Number taking shared parental leave	Number taking paternity leave	Number taking shared parental leave
2012	3		2	
2013	2		2	
2014			2	
2015			1	
2016	2	2		1
2017	4		1	
2018	5	3	1	
2019	3	2		

(xxi) Flexible working

Provide information on the flexible working arrangements available.

The University has a clear policy and procedure for Flexible Working, followed by the Department. No Academic staff have formally requested flexible working due to the flexibility of working within this staff category. 3 Assistant staff, who took maternity leave, all returned to work on flexible working. Other common reasons for flexible working requests are: to fit in with a dependant's care arrangements; preparing for retirement; and coping with a disability. Staff receive 1:1 advice on flexible working from the HR Manager.

19% women and 12% men have formally requested flexible working; 100% women and 75% men satisfied with the outcome.  
**2018 Academic Staff Survey**

The Department favourably considers all requests for Flexible Working either on a temporary or permanent basis and this has included working from home (**Action F.4**).

**Action F.4:** Develop additional support for flexible working and caring leave in response to survey and focus group feedback.

*"I cannot thank the Department enough for its support during the last few years. I was able to change my working hours in order to attain a good work/life balance. This enabled me to care for my elderly father who suffered with Alzheimer's Disease and who lived with me until shortly before he passed away."*

**Assistant staff (woman), on flexible working**

(xxii) 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.

The University offers a Graduated Return to Work scheme: a member of staff can return at a minimum of 20% and take graduated steps to full-time within 12 months; or part-time, either temporarily or permanently, under the Flexible Working scheme. For Academic staff, the teaching load is also reduced accordingly. Several of our woman academics have taken advantage of this scheme.

*"With my first child there was no Graduated Return; and I suffered terribly with the workload. With my second child, I took Graduated Return, which meant I could gradually introduce my baby to nursery and pick-up my first child from school, as well as leading my research activities."*

**Senior Academic (woman), on Graduated Return**

**Highlights: Flexible working and managing career breaks**

- Department funds KIT days taken whilst on unpaid leave.
- Department provides quiet room for nursing mothers.
- Department has baby-changing facilities, high-chairs, and a child policy, which allows babies in offices.
- Women academics are relieved from lectures in the first term and no new lecture courses assigned in the first 12 months on return from maternity leave.
- HoD enthusiastically supports applications to the University's Returning Carers scheme; women returners have been very successful at obtaining funds.
- Department very supportive of flexible and part-time working.

## 5.6. Organisation and culture

### (i) 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 Department runs a very active Outreach programme, directed by two Outreach Officers (1 man and 1 woman). The strategy is to raise aspirations and widen participation of students aged 11-19 by offering a range of activities, mostly for schools in East Anglia and the South East, and increasingly reaching all the UK.



Numerous events are run throughout the year, relying on the support and contributions of staff and students. Contributions vary from hour-long lectures to practical demonstrations and experimental support. In all events, our women Lecturers and demonstrators take a central role. Some of our main annual events include:

- Physics at Work Exhibition: 3-day event for 14 to 16-year olds (2300 pupils per year from 130 schools, with 50% male and 50% female participants);
- Senior Physics Challenge (>30% female participants);
- “Science Saturday”, a “Science through Art” exhibition, and keynote women speakers during the Cambridge Science Festival;
- undergraduate Open Days and Cambridge Colleges Physics Experience days; and
- School Workshops and the High Energy Physics Masterclass.

Of particular note are schemes that specifically address the “Girls into Physics” issue:

- work experience, targeting high-achieving local pupils (especially girls) with a desire to study Physics;
- Trinity College “Girls in Science” programme and residential; and
- Newnham Women in Science project (linked to the all-women college).

The impact of the Cambridge Colleges Physics Experience days is shown in Figure 5.6.1, where it is seen that the interest of girls in Physics is shifted more than boys.



Individual contributions to Outreach are recorded in our Outreach Log, accounted for in the Workload Model, and recognised as essential transferable skills for Research staff and postgraduates. In 2017, 739 hours of outreach time was logged with 236 and 503 hours by 6 women and 15 men, corresponding to 39 hours per woman and 33 hours per man, respectively. The Outreach Log will be updated so that all contributions, gender and protected characteristics are recorded in a few-clicks process, and to make it more useful for grant application and REF impact cases (**Action E.2**).

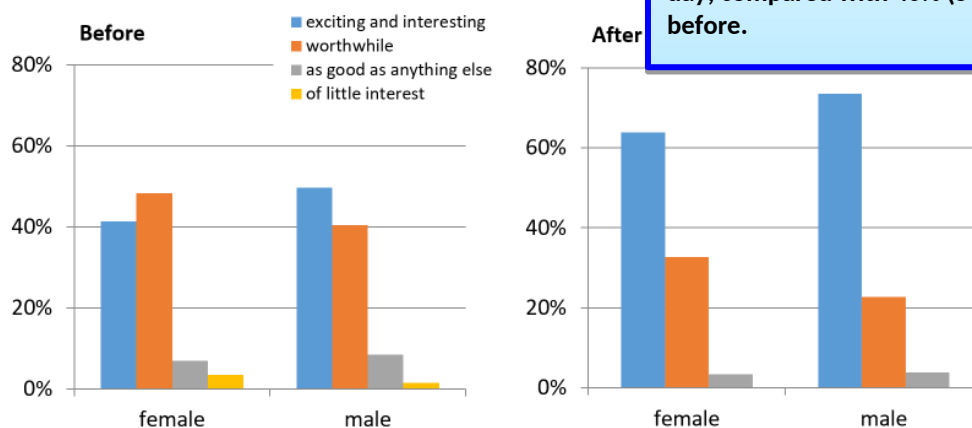


Figure 5.6.1: Survey results of Year 12 students attending Cambridge Colleges Physics Experience days showing the shift in interest, particularly by girls, before the day started compared with at the end.

**Action E.2:** Update the Outreach Log so that all contributions, gender and protected characteristics are recorded in a few-clicks process, and to make it more useful for grant application and REF impact cases.

## (ii) 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.

Our policy is to promote women staff and students at any opportunity, and aim towards a target of equality at seminars, conferences and other events held within the Department. Our web-site displays positive images of women and 25% of the last 40 Cavendish news items have been about the achievements of women.

Over the past 5 years, the percentage of women speakers at research seminars has increased from 16% to 21% (Table 5.6.1). The HoD specifically requests women speakers for the Departmental "Cavendish Physical Society" colloquia (33% women), and the prestigious annual Scott Lectures (25% women). We also promote speaker equality at conferences and meetings held on-site; at the last Research Strategy day, 57% of speakers were women and in the follow-up Strategy Working Group, 50% of members are women.

The Department is very careful to select a diverse range of images in all publications. The renowned Department's magazine, CavMag, in particular, celebrates women and diversity as much as possible, e.g. with the announcement of our AS Gold success and, in another issue, with Val Gibson as guest editor for an all women issue.



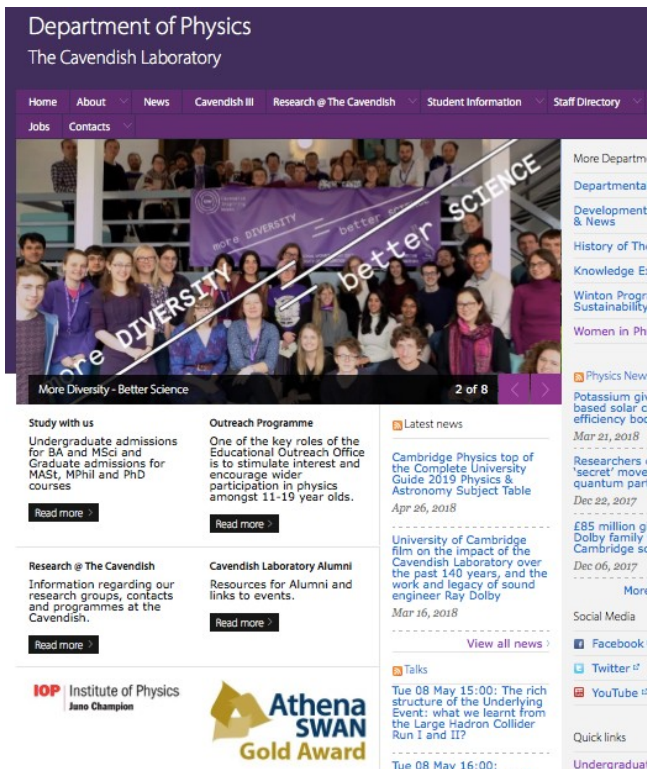
A new initiative that the Department will launch is a new international conference series, the “Cavendish Conference”, which will have equality at its very core. Each conference will consist of an equal number of men and women attendees and speakers, and will aim for proportionate representation from other minority groups. The underlying principle builds on a request from our staff and students to be treated as equals; evidence of gender bias at conferences; and the change in dynamics when a minority group reaches >30% (**Action H.3**).

**Action H.3:** Launch the Cavendish Conference series that will have equality at its core.

**Table 5.6.1: Speakers at Cavendish Laboratory seminars 2014-19 by gender. \*2019 is partial data.**

	Number of speakers	% women
2014	236	16%
2015	297	20%
2016	263	15%
2017	199	19%
2018	122	13%
2019*	169	21%

Percentage of women speakers at Cavendish seminars has risen from 16% to 21% in 2019.



“Sarah Bohndiek and her team have developed a new type of endoscope for early diagnosis of oesophageal cancer.”

“Prof. Val Gibson: Equality Champion.”

“Former Cavendish Researcher, Prof. Michelle Simmons of UNSW named 2018 Australian of the Year.”

“Team led by Jacqui Cole discover a way to potentially enhance efficiency of solar cells.”

“Rachael Padman awarded the Gay Times Barbara Burford Honour” for STEMM.”

“#iamaphysicist day was celebrated by CiW.”

Recent Cavendish news items

(iii) Beacon activity

Demonstrate how the department is a beacon of achievement, including how the department promotes good practice internally and externally to the wider community.

The Department has been working to expand our range of ED&I activities internally, within the University, with our partners and nationally. Individuals in the Department are world-renowned “Ambassadors for Women in Science”, and we highlight just some of their activities, as well as our most recent Departmental activities here.

A culture-defining group in the Department is the women’s early-career network, Cavendish Inspiring Women (CiW), led by women postdocs, postgraduate and undergraduate students, and resourced by the Department. CiW regularly host talks from women role models, organises tea/coffee sessions and (in)formal dinners, and run their own mentoring scheme. They have produced a booklet for schools, a video and are organising group supervisions for women undergraduates.

We actively promote our activities to our industrial partners by inviting them to our Unconscious Bias workshops, requiring women to sit on industrial boards, and a balanced number of presentations from women in associated symposia and conferences. This has greatly increased awareness throughout our own community and our industrial partners.

The Department has a zero-tolerance policy on bullying and harassment, and are at the forefront of the University-wide “*Breaking the Silence*” initiative to address sexual harassment. Over a hundred of our staff have attended Departmental workshops since the initiative was launched in October 2017, with each workshop introduced by the HoD. We have two harassment advisors (1 woman, 1 man) who are available to give confidential guidance and support to staff and students (**Action G.1**). This campaign has revealed two cases of sexual harassment, and the HoD has personally interviewed academics and students involved to make clear that such behaviour must be challenged at source. We will host annual “*Breaking the Silence*” workshops for students and staff (**Action G.2**).

*“BP has supported a number of Diversity and Inclusion activities in the past year including highlighting Athena Swan accreditation during research planning stages and research review meetings – this includes transferring best practice from the Department of Physics on Unconscious bias which was adapted for the BP-ICAM annual conference and later taken into BP.”*

**Report on Strategic Alliance with the University of Cambridge, BP**

100% (81%) women (men) Academic staff have not experienced bullying and harassment; 83% (78%) women men felt they could report without negative impact on them.

**2018 Academic Staff Survey**

We have run two workshops facilitated by The “Good Lads” team, who promote “positive masculinity” and enable men to deal with complex gender situations and become agents of positive change. Particular male-dominated groups in the Department were targeted, to address cultural assumptions and poor behaviour. Teams with a poor gender balance are a priority for these events (**Action G.3**). To deepen our understanding of these issues, the Department has recently agreed to scope a survey of graduate students specifically on the topic of harassment and bullying.

**Action G.1:** Send two harassment officers on a training course.

**Action G.2:** Host annual “Breaking the Silence” workshops for students and staff.

**Action G.3:** Assess impact of “Good Lads” initiative on working practice in Department, and host future workshops.

Our surveys and gender equality forums have identified concerns from women about the dynamics of “collaborating with men”. We have identified a set of mitigating actions, such as “reverse mentoring”, where a senior man is mentored by a junior woman. A plan has been agreed by the School, and will be rolled out in the Department (**Action A.7, D.12**).

The Department is in discussion with an artist who has made a series of short films, funded by L’Oreal, about women scientists, including from the Cavendish. The films take a unique perspective on women’s lives, inspirations and career paths. We plan to commission an extended set of these films, focussing on women physicists, which we will make available nationally, especially to schools (**Action H.4**).

**Action A.7:** Continue to participate in “Collaborating with Men” surveys and actions.

**Action D.12:** Reverse mentoring and other schemes identified in “Collaborating with Men”

**Action H.4:** Produce set of women in physics films to distribute nationally.

The Department hosts an extremely successful national education programme, the Isaac Physics Project (IPP). The programme aims to make the University’s Physics course accessible to all, and benefits from the experience of our AS activities to address performance as the basis of its teaching methods. The programme includes student workshops, professional development for teachers and individual support. By Jan 2018, IPP had 105,012 registered users, with 56,220 active in the last 6-months. Of those students who declared their gender, 34% are women. In 2018, IPP hosted two, two-night residential camps for students who were studying A-level (or equivalent) Maths and Physics. The camps attracted 295 students, with a 39% women attendance from 111 different schools (Figure 5.6.2). Approximately 55% of the attendees were from ethnic minority backgrounds.



**Figure 5.6.2:** Student attendees at an Isaac Physics Project camp during their visit to the Cavendish Laboratory. The cohort was 45% women.

Individuals from the Department make very significant contributions to women in science nationally and internationally. Athene Donald regularly writes about issues on her world-renowned blog and in mainstream media about gender issues. She is a member of the ERC's Gender Balance Group and a member of a group of experts working on the League of European Research Universities policy on ED&I.

Val Gibson has been Chair of the IoP Juno Panel since 2016, supporting other Physics departments on their journey, and visiting AS Gold and Silver departments to share best practice. She is also the inspiration behind the Juno Excellence award launched in 2017; the Department will work in collaboration with the IoP Juno panel to agree a strategy for their Juno Excellence plan (**Action H.5**).



**Action H.5:** Develop a strategy in consultation with the IoP ED&I team for the Department's plan for attaining Juno Excellence standard.

Athene and Val regularly give talks about women in science at University departments' AS events and conferences on gender equality. Athene and Val made a major contribution to the 2017 IUPAP International Conference on Women in Physics; Val became an author of the Waterloo Charter for Women in Physics and also played a key role in establishing the "Early Careers, Gender and Diversity" group within her multi-national collaboration at CERN.



## Athene Donald's Blog



[Home](#) [About](#) [BSA Presidential Address 2015](#) [Just1Action4WIS](#) [Science and Gender –Obstacles and](#)

### Just1Action4WIS

My call for action under the banner #Just1Action4WIS – which of these can you commit to? There should be something for everyone here, whatever their role: as academic, teacher, student, parent or simply a member of the public. (See also my original 2015 [post](#) on the subject, and the [summary](#) on the Guardian pages.)

- Call out bad behaviour whenever and wherever you see it – in committees or in the street. Don't leave women to be victimised;
- Encourage women to dare, to take risks;
- Act as a sponsor or mentor;
- Don't let team members get away with demeaning behaviour, objectifying women or acting to exclude anyone;
- Seek out and remove microinequities wherever you spot them;
- Refuse to serve on single sex panels or at conferences without an appropriate level of female invited speakers;
- Consider the imagery in your department and ensure it represents a diverse group of individuals;
- Consider the daily working environment to see if anything inappropriate is lurking. If so, do something about it.
- Demand/require mandatory unconscious bias training, in particular for appointment and promotion panels;
- Call out teachers who tell girls they can't/shouldn't do maths, physics etc;
- Don't let the bold (male or female) monopolise the conversation in the classroom or the apparatus in the laboratory, at the expense of the timid (female or male);
- Ask schools about their progression rates for girls into the traditionally male subjects at A level (or indeed, the traditionally female subjects for boys);
- Nominate women for prizes, fellowships etc;
- Tap women on the shoulder to encourage them to apply for opportunities they otherwise would be unaware of or feel they were not qualified for;
- Move the dialogue on from part-time working equates to 'isn't serious' to part-time working means balancing different demands;
- Recognize the importance of family (and even love) for men and women;
- Be prepared to be a visible role model;
- Gather evidence, data and anecdote, to provide ammunition for management to change;
- Listen and act if a woman starts hinting there are problems, don't be dismissive because it makes you uncomfortable;
- Think broadly when asked to make suggestions of names for any position or role.

(iv) 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.

The Department's aims are to treat all as equals, be sensitive to individual needs, develop a culture that is open and comfortable for all, and maintain optimal work-life balance and health and wellbeing. We need to ensure that our aims are adhered to throughout the whole Department (**Action A.8**). Following our 2018 staff survey and focus groups, a general need of improving the day-to-day communications that impact on personal work experience and sense of community became apparent, and we target this in our Action Plan (**Action E.3**).

*"I feel lucky to work at the Cavendish... it has a real commitment to equal opportunity."*  
**Assistant staff (man)**

Other aspects that influence the Department's culture include:

- **Athena SWAN/Juno:** our achievements are displayed prominently at the entrance, and all notice boards display "Our Values" and targeted messages;
- **ED&I training:** it is mandatory for all staff to complete the online ED&I training course; and, if appropriate, Recruitment Essentials training;
- **Research Staff Committee:** provides a voice for Research staff and opportunity to address issues, such as career advice, mentoring, and induction. The committee organizes events, such as the annual 'Research Day', the tea-time speaker; and a monthly 'happy hour' networking and social event for all;
- **Communications:** through the Cavendish web-site, Staff Meetings, the "Cavendish People" newsletter, and the CavMag magazine; all actively promote women's achievements and has balanced images.
- **Health & Wellbeing programme:** events in the Department and elsewhere are advertised on notice boards, via email and newsletters; the Department has 1 woman and 2 men trained health and wellbeing advisors;
- **Child Policy:** following a review of the safety constraints within a research-intensive laboratory, the Department has a child policy that welcomes children in public areas and babes-in-arms in offices;
- **Baby facilities:** accessible to both men and women; high-chairs provided in the common room;
- **Maternity:** pre- and post-maternity needs, such as car-parking and breast-feeding/expressing facilities;
- **Family/Carers:** "Families at the Cavendish" information leaflet;
- **Cavendish Collection:** a small museum celebrates the success of alumni and has a vision to include career profiles of successful women (**Action E.4**);
- **Nominations Committee:** suggests staff for external awards and prizes. Women are very successful and their successes are advertised widely. We need to review the nominations process to ensure the full range of opportunities and potential candidates are considered (**Action E.5**); and
- **Transport:** family commitments and unsociable working hours are high on the list of criteria for allocation of car-parking spaces.

**Action A.8:** Investigate female representation (e.g. PGs, post-docs, seminar speakers etc) and culture in individual Research Groups/Themes, and act on cases of bad practice.

**Action E.3:** Investigate and introduce best practice for day-to-day communications that impact on personal work experience and sense of community.

**Action E.4:** Cavendish Collection and public displays highlights successful women and diversity of the Department.

**Action E.5:** Review nominations process for prize and awards to ensure that full range of opportunities and potential candidates is considered.

UNIVERSITY OF CAMBRIDGE  
Cavendish Laboratory

## Our Values are for everyone!

<b>Consideration</b> treating others as we would like others to treat us	<b>Supporting career aspirations</b> encouraging and supporting everyone in pursuing their career aspirations
<b>Respect for all</b> showing respect for each other	<b>Recognising contribution</b> recognising everyone's contribution to the Department's success
<b>Helping others to excel</b> actively seeking ways to enable everyone to give of their best, regardless of their personal circumstances	

**What do they mean to you?**

**Athena SWAN Gold Award**

**IOP Institute of Physics June Champion**

Please tell us by emailing  
**HR@phy.cam.ac.uk**

UNIVERSITY OF CAMBRIDGE  
Cavendish Laboratory

## We expect everyone in the Cavendish to treat others with respect.

To seek advice on bullying, harassment or unwanted behaviour please email **dignity@phy.cam.ac.uk** in confidence

**phy.cam.ac.uk/intranet/admin/dignity**

(v) Timing of departmental meetings and social gatherings

Describe the consideration given to those with caring responsibilities and part-time staff when scheduling departmental meetings and social gatherings.

All Departmental committees, administrative and staff meetings are held during core hours 10-4pm. The termly Staff Meetings are held at 3pm; all staff are encouraged to attend. The main Departmental colloquium is held at 4pm, and is normally followed by a drinks reception and/or dinner with the speaker. Staff attendance is not compulsory.

Due to the short Cambridge term (8 weeks), undergraduate lectures are scheduled on a Saturday morning. The Department has made a positive action to be flexible with the assignment of courses to staff whom request that their family/carer responsibilities are taken into account. The Department also made a positive

decision to only schedule lectures, organised by the Department, between Monday and Friday. This includes the Year 3 and 4 Physics lectures, with the exception of those courses run by other departments.

The Department's Research Staff Committee and Social Committee, run by Assistant staff, are very active and organise many social activities. In particular, the heavily subsidized "happy hour" events on a Friday are very popular with postgraduates, Research and Academic staff. The staff Christmas lunch is scheduled at lunchtime in the Department's canteen and the Summer Event, includes children-focussed activities e.g. pony rides, bouncy castle etc. The HoD office organises dinners for undergraduate prize-winners and newly-promoted staff and their partners. Many social gatherings are organised by the Colleges for students and many of the research groups in the Department have regular group activities.

#### (vi) 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 Department has an HR team consisting of an HR Operations and Projects Manager and three administrators. There are also 3 administrative Hubs with 4 HR Administrators. Working closely with the central HR Division, the team ensures that the Department follows HR policies.

The Department runs bi-annual line-manager sessions to update all staff with line-management responsibilities on HR practices, and several ad-hoc sessions each year to update line-managers on e.g. Sickness Absence policy and procedure, SRD and Contribution Reward Scheme.

The Department has strongly advertised the University's policy on Dignity@Work and Study and "Breaking the Silence", with posters prominently displayed throughout the Department. There are four Dignity@phy advisors who can be contacted by any staff member or student via a designated email. Again posters are displayed throughout the Department advertising Dignity@phy.

All Academic staff are briefed of any changes in HR policies and procedures at the all Faculty Meetings, and all staff are briefed at the Staff Meeting each term.

#### (vii) 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.

A beacon activity within the University is our annual workload survey, launched in 2011, which provides an overall picture of the work that staff undertake on behalf of the Department. It provides a crucial tool for the HoD, and DUT, when assigning responsibilities, such as teaching and committee work, writing cases for promotion and allocation of resources.

The Workload Model is based on a pre-determined points system and is divided into categories:

- undergraduate teaching and examining;
- postgraduate education;

- Departmental and University administration;
- outreach;
- mentoring and SRD;
- College responsibilities that impact upon the Department (e.g. small group teaching, direction of studies, open days, admissions); and
- contributions external to the Department (e.g. examining, appointment and Research Council committees).

Guidelines for the expected number of points in each category are advertised. Extraordinary contributions, such as preparation of AS applications, are fully accounted in the Workload Model and work on women in science is embedded within all categories. Some categories, such as number of PhD students and College teaching, are capped to prevent focussed activities either for financial or research gain. The Workload Model is independent of seniority and the total workload points should be roughly equal for all Academic staff, except for new staff and those on leave.

The workload survey is conducted via a web-based facility. The results are accessible to all; each user can access their own workload and compare it to the distributions and averages. Access to individual returns is provided for the HoD and the Chair of the Personnel Committee. A summary of the average workload for Academic staff over a 12-year period is shown in Figure 5.6.3. The workload of men Academics is rising to meet that of the women.

Our workload survey is considered to be a great success and widely accepted as fair to all. It is used as a prime example of good practice in the School and University, and is being adopted by other departments both internally and externally. We will continue to monitor and use our workload survey results to modify the workload of individuals, and ensure that all forms of care leave, e.g. emergency family/care leave, are taken into account (**Action F.5**).

**Action F.5:** Ensure all forms of care leave are taken into account in the Workload Model.

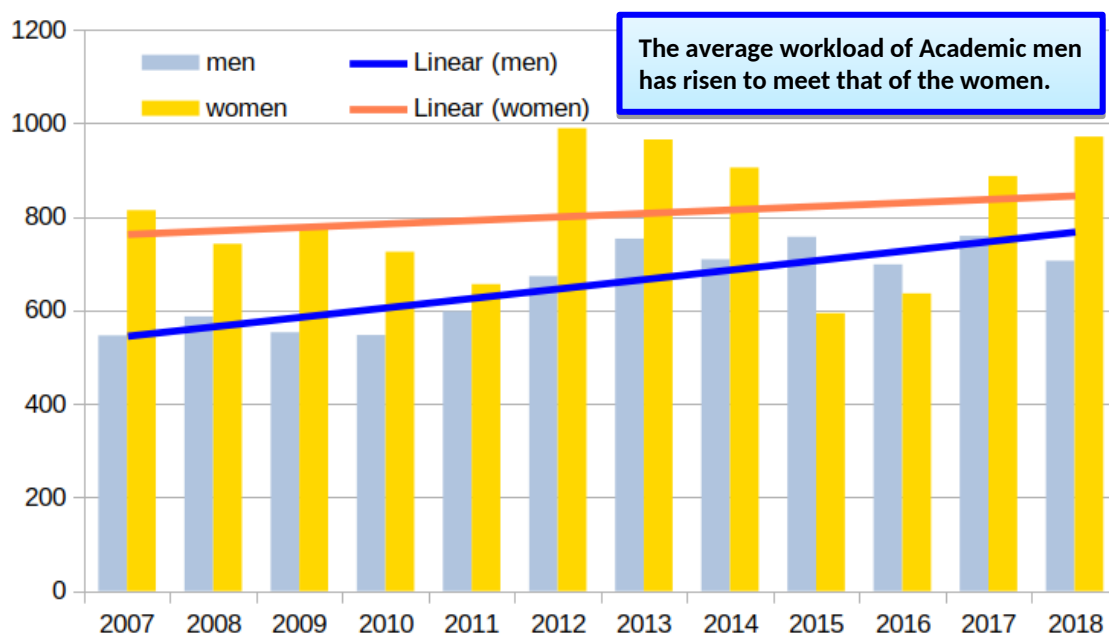


Figure 5.6.3: Average workload points for Academic staff by gender.

(xxiii) 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.

The gender breakdown of the core Departmental committees is shown in Table 5.6.2; women take about 41% of the committee load; 22% attributed to women Academics. The representation of women on committees has certainly improved, however, the trend indicates that the committee load for women Academics is gradually increasing and remains significantly higher than that of the men Academics. This may impact the research of women Academics, so we will adjust committee membership and loads according to the Workload Model, and preferentially assign women to core or influential committees (**Action A.9**).

**Action A.9:** Annual adjustment of committee membership and loads according to the workload model, and preferentially assign women to core or influential committees.

(xxiv) 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?

All staff are encouraged to participate in external committees and, if asked, the HoD provides senior, early-career and gender-balanced suggestions. External committee participation, such as Research Council committees, ED&I committees, and learned society committees, are taken into account in the Department's Workload Model.

Women Academic staff contribute 22% of the Committee load, 20% of Academic staff are women.

**Table 5.6.2: Number of women and men on the 8 core departmental committees by year.**

		Cavendish Board	Finance	Personnel	Research Staff	Teaching	Student Consultative	Safety	Graduate Education	% women	% academic women	Positions held / number of academics	
												women	men
<b>2014</b>	Academic women (men)	1 (8)	1 (3)	2 (2)	3 (8)	3 (4)	0 (4)	0 (7)	1 (7)	23%	13%	1.4	0.9
	Non-academic women (men)	3 (2)	1 (1)	1 (3)	0 (1)	0 (0)	0 (1)	2 (13)	1 (0)				
<b>2015</b>	Academic women (men)	2 (8)	1 (4)	1 (2)	3 (8)	3 (6)	0 (4)	1 (3)	1 (7)	25%	15%	1.7	0.9
	Non-academic women (men)	2 (2)	2 (1)	1 (3)	0 (1)	0 (0)	0 (1)	2 (9)	1 (0)				
<b>2016</b>	Academic women (men)	1 (9)	1 (4)	1 (4)	1 (10)	3 (9)	0 (3)	2 (6)	1 (7)	29%	10%	1.1	1.0
	Non-academic women (men)	3 (1)	2 (1)	5 (1)	0 (0)	0 (0)	3 (0)	4 (13)	1 (0)				
<b>2017</b>	Academic women (men)	2 (9)	1 (4)	1 (4)	1 (10)	4 (7)	0 (3)	1 (6)	1 (7)	31%	12%	1.2	1.0
	Non-academic women (men)	3 (0)	2 (0)	5 (2)	0 (0)	0 (0)	3 (0)	4 (13)	1 (0)				
<b>2018</b>	Academic women (men)	3 (8)	1 (4)	2 (1)	3 (14)	4 (8)	0 (3)	3 (10)	1 (7)	31%	17%	1.7	1.2
	Non-academic women (men)	3 (0)	2 (0)	4 (3)	0 (1)	0 (0)	2 (0)	3 (11)	1 (0)				
<b>2019</b>	Academic women (men)	3 (9)	1 (5)	2 (1)	5 (15)	4 (5)	0 (3)	0 (1)	3 (5)	41%	22%	1.7	0.9
	Non-academic women (men)	3 (0)	3 (0)	6 (1)	0 (0)	1 (0)	2 (0)	0 (1)	2 (0)				

### **Highlights: Organisation and culture**

- A fully comprehensive Outreach programme, with many specific activities designed to reach-out to girls and minority groups.
- Isaac Physics Project is widely-renowned nationally for supporting students and teachers.
- %women seminar speakers in the Cavendish increased from 17% to 31%.
- CavMag magazine celebrates women and diversity.
- Our two Professorial women, Athene Donald and Val Gibson, are world-renowned Ambassadors for Women in Science.
- Cavendish Inspiring Women is a culture-defining group.
- The Department has a zero-tolerance policy of bullying and harassment, and avidly supports the "Breaking the Silence" initiative.
- The Department has a very active Health and Wellbeing event programme, and has trained 3 advisors.
- Our workload model is a beacon activity in the University and elsewhere.

**Total word count: 7680 words**

## 6. CASE STUDIES: IMPACT ON INDIVIDUALS

### Recommended word count: 1500 words

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

The subjects of the case studies should include a member of the self-assessment team and a member of professional or support staff. The case studies should include both men and women.

More information on case studies is available in the awards handbook.

#### **Paternity and family life** - Prof. Nigel Cooper



I have been a member of Academic staff at the Cavendish Laboratory since 2000. Recently my work-life balance has changed significantly, as has that of my wife, through the birth of our two sons. We are a dual career Academic couple. The Department has been supportive throughout this period in many ways. Most notably, I arranged to take 8 weeks of unpaid parental leave in 2016. The Department was quick to approve this leave, and found a very effective way to ensure that my work was not impacted by this absence, also taking account of lost research time. Most recently, the Cavendish has also offered flexibility in making arrangements for my teaching/leave to coincide with that of my wife, so that I can help to support her career within the University. I have also found it very helpful that all necessary meetings within the Cavendish are scheduled within core hours, at times of the day that are family-friendly. The summer garden party is a favourite of our kids, so we are regulars there; we very much enjoy this special social event that reaches across the whole Department and brings Academic and support staff together. Overall, I have been much supported within the University in my new role as a working father, with the Department taking actions that set particularly high standards.

#### **Mentoring and Training** Member of the SAT - Saba Alai



I am the second Departmental Safety Officer. My predecessor was also a woman and was in post for 15 years until she retired. Women are still a minority in my profession, so it is noteworthy that the Cavendish appointed two. I am also an ethnic minority (Iranian). At interview, I competed against three men, some of whom were internal University candidates. It was made clear to me from the start that my expertise and attitude were valued, and that I was seen as an excellent candidate for the job.

I suffer from 'Imposter Syndrome'. The Cavendish supported me to overcome this fear by arranging for a mentor from the University Safety Office. The HoD (my line-manager) and DA provide me with support and advice whenever I needed it. As I was new to academia and unfamiliar with many of the risks in physics research, I attended ~28 University training sessions during the probationary period, including personal and professional development. I did so well that the Institute of

Occupational Safety and Health, asked to interview me as a "Star" for an article in their magazine. The result of all the training was an increased level of confidence in dealing with my work and colleagues. The Department also released me to visit the University's counselling service to help with my Imposter Syndrome.

The Department backed me to attend the Springboard programme. This was an excellent opportunity to learn more about myself and about management techniques, as well as meeting women from other departments and hearing how different parts of the University work. At the end of the programme I felt

empowered to put my name forward to be elected as a member of the Board of Scrutiny; a body that is an essential part of the governance of the University.

The Department has enabled me to make other worthwhile contributions, including serving as Chair of the University's Physical Safety Sub-Committee, member of the Personnel Committee, and the AS SAT. I feel my contribution to the Department is valued beyond my professional role.

The Department has helped me manage my home life and been understanding about occasional health problems. Being a woman of menopausal age, I occasionally suffer from serious related symptoms and need to take sick leave. With two school age children, I manage half terms by occasionally working at home, and my time to allow attendance at early evening school meetings. Not long after I started, I suffered a serious back injury that caused me severe pain and exhaustion for more than three months. The Department helped me continue to be productive and avoid sick leave, while working reduced hours at the time when the pain was at its worst.

Before joining the Department of Physics, I had 30 years' experience of working in local government and industry. The Department is the first workplace where I feel truly 'at home', respected and valued for my efforts and competence despite not being an academic, originally British, or a man. I understand we have a long way to go to improve the number of women studying Physics, but as a member of support staff I feel entirely comfortable and accepted as one of a widely diverse group of people.

**Transitioning in an academic environment and unusual career path. Chair of the SAT**  
- Rachael Padman



I was a PhD student in the Cavendish and then an 1851 Research Fellow. In 1981 I transitioned. The Department, University, my College and the Royal Commission for 1851 were all entirely easy about it. Following 2 years at Berkeley, I returned to Cambridge as a Research Associate and was appointed to a Lectureship. In July 1997, following my election to a Fellowship at Newnham (and all womens' College), I was publicly "outed" in the press. Both College and Department were totally supportive, but I suffered for a long time from post-traumatic stress; my research suffered as a consequence. With the help of my Departmental mentors, I reappraised my career, and redirected my energies to teaching and governance.

With Departmental support, I responded to a University call for more women to participate in committees, and I was appointed to several core committees that oversee Education (the University Education Committee, Academic Secretary of the Physics Teaching Committee and Director of Education for the School). I was also elected to University Council and became a member of the General Board. My passion for ED&I activities also led me to Chair the School's ED&I Forum.

In Physics, I am Chair of the Personnel Committee and the AS SAT (until 2018), and sit on the Cavendish Board. I am the University "trans safe contact", and regularly advise potential and current staff and students, as well as advising HR and others on trans policy and procedures. In 2017, I received the Gay Times Barbara Burford Honour for Excellence in STEMM, in recognition of both achievement and personal example. Physics and the University publicised it widely; the University has since run a profile on its website to mark LGBT History Month. I have also been asked to speak to various University societies. It is heartening to say that both the Department and University took my transition entirely in their stride, 20 years before they were legally required to do so.

The Department has been fully supportive over a long period of my involvement in University governance and my 50% buy-out while Director of Education. The HoD was very supportive of my case for promotion,

-  
which without a research profile makes me technically ineligible. However, he worked with me to submit an application.

**Total word count: 1132 words**

## 7. FURTHER INFORMATION

Recommended word count: 500 words

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

**Table 7.1: Academic-related and Assistant staff by Grade and gender.**

Grade	Staff Type	Women	Men	% Women
1	Catering	4	0	100%
	Cleaning	7	7	50%
2	Office Support	3	0	100%
3	Computing	1	0	100%
	Office Support	7	3	70%
	Technician	0	2	0%
4	Finance	0	1	0%
	Office Support	3	2	60%
	Plant Equipment Operative/Supervisor	0	2	0%
	Technician	0	5	0%
5	Catering	0	1	0%
	Finance	2	4	33%
	Office Support	5	0	100%
	Plant Equipment Operative/Supervisor	0	1	0%
	Skilled Trades	0	2	0%
	Technician	1	9	10%
6	Computing	0	1	0%
	Finance	0	1	0%
	Office Support	4	4	50%
	Other Administrative Professional	0	2	0%
	Plant Equipment Operative/Supervisor	0	1	0%
	Research Support	0	2	0%
	Technician	0	17	0%
7	Computing	0	4	0%
	Finance	0	1	0%
	Other Administrative Professional	4	1	80%
	Research Support	0	4	0%
	Science, Engineering & Health Professional	1	0	100%
	Teaching Support	2	0	100%
	Technician	0	3	0%
8	Computing	0	3	0%
	Other Administrative Professional	3	1	75%
	Research Support	1	2	33%
	Science, Engineering & Health Professional	0	2	0%
9	Academic Administrator	1	0	100%
	Manager	0	1	0%
	Other Administrative Professional	2	1	66%
	Science, Engineering & Health Professional	0	1	0%
	Teaching Support	1	0	100%
	Technician	0	1	0%
10	Academic Administrator	1	0	100%
	Computing	0	1	0%
	Department Administrator	1	0	100%

	Other Administrative Professional	1	0	100%
12	Other Administrative Professional	0	1	0%
Other	Manager	1	0	100%
	Skilled Trades (Apprentice)	2	2	50%
	<b>TOTAL</b>	<b>58</b>	<b>96</b>	<b>38%</b>

**Total word count: 0 words**

## 8. ACTION PLAN

The action plan should present prioritised actions to address the issues identified in this application.

Please present the action plan in the form of a table. For each action define an appropriate success/outcome measure, identify the person/position(s) responsible for the action, and timescales for completion.

The plan should cover current initiatives and your aspirations for the next four years. Actions, and their measures of success, should be Specific, Measurable, Achievable, Relevant and Time-bound (SMART).

See the awards handbook for an example template for an action plan.

Our Action Plan in this submission builds on previous actions and incorporates new actions reflecting the development of the AS and IoP Juno principles. The themes are presented under the following headings:

- A. Baseline data, supporting evidence and monitoring;
- B. Student admissions, training and support (undergraduate and graduate);
- C. Key career transition points, appointments and promotions;
- D. Career advice and support;
- E. Culture, communications and departmental organisation;
- F. Career breaks and flexible working;
- G. Professional conduct, harassment and bullying; and
- H. University, national and international ED&I.

Actions are labelled A.1, B.1 etc throughout the document to reflect these themes.

### Timescales

Q1, Q2, Q3, Q4 refer to quarters of year: Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec.

	Year 1 (2018)
	Year 2 (2019)
	Year 3 (2020)
	Year 4 (2021)
	Year 5 (2022)

## 9. ACTION PLAN

Action	Juno Principle	Planned Action	Rationale	Key Outputs and Milestones	Timeframe		Person responsible	Success Criteria and Outcome
					Start Date	End Date		
A		Baseline data, supporting evidence and monitoring						
A.1	1	Undertake staff and student surveys, supported by focus groups, with a 2-3 year interval.	Anonymous feedback of progress and new issues needed to inform Action Plan	Updated Action Plan every 2 -3 years	Q2 2020	Every 2-3 years	SAT	Target survey return rate > 75%. Focus groups consist of >20% staff and students, with feedback used to inform actions before next survey.
A.2	1	Communicate progress and findings to staff at termly Staff meetings, and through posters and Cavendish People leaflet, and respond to concerns.	Two-way communication and feedback is key	Standing item on termly Staff meetings, termly update of posters and leaflets	Q4 2018	Once per term	HoD and Departmental Administration	Measured improvement of staff satisfaction with Departmental communication from survey and focus groups.
A.3	1	Submit an annual formal report internally to Cavendish Board and externally to the School ED&I Forum, and act on feedback.	Independent reporting and feedback, and share best practice with other departments in the School	Annual AS report	Q2 2019	Annual	SAT	Target: Reports submitted, feedback received and Action Plan updated.
A.4	1	Turnover of 50% of the SAT personnel on a 2-year cycle to sustain momentum and develop fresh ideas.	Healthy turnover of SAT team will sustain momentum, develop new ideas and share workload.	New membership in place and active.	Q3 2018	Every 2 years	Chair of SAT/CCF, HoD	50% SAT members replaced. New Cavendish Community Forum in 2019 takes over.
A.5	1	Investigate the PhD graduate student intermissions, exit survey and destinations data.	Complete picture of first career steps of PhD students informs Career Advice needs, and exit survey will inform Action Plan	Annual report	Q4 2018	Annual	Director of Graduate Education, Graduate Office	Report submitted to Graduate Education Committee with recommendations submitted to Cavendish Board.
A.6	1	Academic and Research staff exit survey and destinations data.	Complete picture of next career steps of Research staff informs Career Advice needs, and exit survey will inform Action Plan	Annual report	Q4 2018	Annual	HoD office and HR	Report submitted to Cavendish Board and Research Staff Committee with recommendations acted on.
A.7	1	Participate in “Collaborating with Men” survey.	To improve workplace culture	Survey results, report from survey and focus groups	Q2 2018	Q4 2018	School office, Murray-Edwards College and Chair of SAT	Survey completed with >75% staff return. Follow-up focus groups provide feedback to inform actions. Report written and sent to School Council, with feedback.
A.8	4	Investigate female representation (e.g. PGs, post-docs, seminar speakers etc) and culture in individual Research	To embed best practice uniformly, and improve culture and working practice across the Department	Outcome contained in annual AS report, including updated Action Plan	Q4 2018	Annual	SAT, Hub administrators	Staff and student data broken down by Research Group/Theme. Standard recruitment adopted for graduate students and Research

		Groups/Themes, and act on cases of bad practice.						staff. Target 30% women seminar speakers in individual seminar series.
A.9	1	Annual adjustment of committee membership and loads according to the workload model, and preferentially assign women to core or influential committees.	To give women staff more say and influence in the Department without increasing workload.	New committee memberships announced at termly staff meeting	Q3 2018	Annual	HoD, Chair of Personnel Committee	Target 30% women Chairs of core committees, with >30% representation. Target equal committee loads for men and women Academics. Demonstrated improvement in feedback and surveys.
<b>B</b>		<b>Student admissions, training and support (undergraduate and graduate)</b>						
B.1	1	Further analyse NSAA data for gender bias and work to mitigate the gender bias against women in the NSAA.	Currently 10% bias in NSAA against women	Updated NSAA and gender attainment study redone. Report written.	Q3 2018	Annual	NSAA team	Report submitted to Teaching Committee with recommendations back and acted on.
B.2	1	Promote NSAA as a gender unbiased means of selection for admissions.	Without gender bias, and if NSAA results are a good prediction of University achievement, NSAA could be used for (de)-selection by all Colleges.	Bias free and predictive NSAA. Review annually until ready.	Q4 2019	Annual	NSAA team, Departmental College NatSci Admissions officers	NSAA adopted by Colleges as a fair means to use in admissions
B.3	1	Run a focus group with Departmental College admissions officers to review admissions procedures and policies for physical NatSci candidates, in particular for women and mitigate any biases.	Admissions policy and practice variable across Colleges	Focus group convened and report written.	Q1 2019	Q1 2019	DUT, Departmental College Admissions officers	Report submitted to Teaching Committee with recommendations back and acted on.
B.4	1	Develop teaching methods in Year 1 and 2 from experience with mock exam and scaffolded-style questions.	Evidence that scaffolded-style questions improve the performance of all; but preferentially women.	Report written	Q2 2019	Q2 2019	DUT, Lisa Jardine-Wright and Year 1 and 2 Lecturers	Report submitted to Teaching Committee with recommendations back and acted on. Positive feedback from undergraduate consultative committee.
B.5	1	Improve guidelines for small group supervisions.	Supervision experience of students is variable, especially for women.	Guidelines published	Q3 2018	Q3 2018	DUT, Teaching Committee	Guidelines written, circulated to all supervisors and published on teaching website. Supervisors acted on them and improvements reported in undergraduate consultative committee
B.6	1	Increase exam-style questions on problem sheets.	Exposure to more exam-style questions improves exam confidence, preferentially benefitting women.	More exam style questions have been included in problem sheets.	Q4 2018	ongoing	DUT, Teaching Committee, Lecturers	Teaching policy agreed for percentage of exam-style questions on problem sheets, and implemented by Lecturers.
B.7	1	Introduce exam preparation study groups.	Exposure to more exam-style questions improves exam	Exam preparation groups scheduled	Q1 2019	Annual	DUT, Teaching Committee.	Exam preparation groups scheduled and positive feedback reported at

			confidence, preferentially benefitting women.					undergraduate consultative committee.
B.8	1	Delivery of small group supervisions for women and non-binary students by CiW.	Year 1 women tend to underperform	Small group supervisions scheduled	Q4 2018	ongoing	DUT, CiW	CiW organise and deliver small group supervisions for women. Women undergraduates performance improves and positive feedback received
B.9	1	Run a focus group with College Directors of Studies to investigate the advice given to students, in particular women, and develop a good practice guide.	Direction of Studies advice variable across Colleges, particularly for women.	Focus group convened and report written.	Q1 2019	Q1 2019	DUT, Departmental Directors of studies	Report submitted to Teaching Committee with recommendations back and acted on.
B.10	1	Investigate if the downward trend of the percentage of women in MSci is real, and if so, implement mitigating actions.	Indication of a downward trend in percentage of Year 4 women MSci students.	Analyse data from next 2 academic years.  Focus group with Year 4 MSci women students.  Introduce mitigating support and guidance.	Q3 2018	Q3 2019	DUT, Teaching Committee	Indication of downtrend has turned into a positive upward trend.
B.12	1	Initiate networking of MAST students prior to their arrival, and buddying scheme with other MSci students.	Better integrate incoming MAST class with MSci cohort	Policy for pre-arrival communication developed	Q3 2018	In place for Q4 2018 cohort and then ongoing	MASt Course Director	Incoming students have established connections prior to arrival. Incoming students report smooth integration with existing class
B.13	1	Investigate performance of MAST students and improve mentoring and support.	Desire to better understand whether a lack of mentoring/support is hindering good results	Report on needs to support better performance  Implement any desired adjustments in support	Q4 2018- Q3 2019	In place for Q4 2019 cohort and then ongoing	MASt Course Director	Clearer understanding of needs developed  Students report satisfaction with level of support provided  Performance of MAST students improves.
B.14	1	Improve recruitment messaging and engagement with high quality women applicants to the MPhil and CDT programs	Desire to maintain high quality of intake to the MPhil and CDT programs to support an increase in % of women admitted.	Recruitment information updated to encourage appropriately qualified female (and male) candidates.	Q4 2018	In place for Q1 2019 recruitment and then ongoing	Relevant Course Directors	Course directors continue to report excellent candidate pool  % of women admitted > % of women applicants
B.15	1	Update entrance guidelines for MPhil and PhD candidates	Remove confusion that sometimes occurs when overseas candidates apply	(a) Review of entrance and progression guidance for MPhil and PhD candidates on web pages  (b) Update of the relevant guidelines	Q3 2018	In place for Q1 2019 recruitment and then ongoing	Director of Graduate Education	Review has taken place  Web pages updated  Reduction in clarifications requested by applicants
B.16	1	Investigate and work to mitigate the cause of the decline in the percentage of women	Gain better understanding of applicant pool and options for enhancing	Review most recent periods where data exists	Q4 2018	In place for Q1 2019 recruitment exercise	Director of Graduate Education	Reports on applicant cohort produced regularly.

		admitted to the MAST and PhD by research courses, and also whether external influences, e.g. Brexit has caused a difference to our EU/overseas applications.	recruitment	Initiate tracking of subsequent cohorts  Review data on yearly basis		and then ongoing		Analysis of application data produced, and recommendations made and adopted
<b>B.17</b>	1	Investigate the gender difference between PhD completion rates and introduce support methods (1 <sup>st</sup> and 2 <sup>nd</sup> supervisor, and advisor) to help all students complete on time.	Understand and mitigate existing indication that female students take longer to complete their PhDs	Review most recent periods where accurate data exists  Initiate tracking of subsequent cohorts  Develop and introduce processes to help student to complete on time	Q4 2018	Initial procedures in place for Q1 2019 entry and then ongoing monitoring	Director of Graduate Education	Develop process for tracking and understanding completion rates  Introduce procedures to Improve completion rates overall to at least School median  Target: PhD completion rates independent of gender
<b>B.18</b>	1	Introduce social networking and informal feedback occasions for students, e.g. with defined breaks with free soft drinks and biscuits/fruit during practical class sessions.	Concern for the wellbeing of undergraduate students and provide opportunity for networking	Check feasibility with Undergraduate Laboratory Manager and catering staff  Decide on timing and Year groups.	Q4 2018	In place for start of year and then ongoing	DUT, HoD	Positive feedback received by Undergraduate Consultative Committee, and in student surveys.
<b>B.19</b>	1	Hold event for women undergraduates during Postgraduate Exhibition Week.	Feedback indicates that women undergraduates benefit from networking and confidence building opportunities	Hold focus group for Year 4 women students to confirm or not previous feedback.  Event for held during Postgraduate Exhibition Week.	Q4 2018	Q1 2019 and then annually	DUT, CiW	Positive feedback received by Undergraduate Consultative Committee, and evidence of increased PhD applications and admission of women to Cambridge or elsewhere.
<b>B.20</b>	1	Support undergraduate women to attend CUWiP and similar events, and offer to host CUWiP.	Previous women attendees reported positive experience.	Advertise CUWiP and other similar conferences.  Teaching Office to collect names of those wishing to attend.  HoD to fund attendance.	Q4 2018	Q2 2019 and then annually	Teaching Office and HoD	Women undergraduates attend CUWiP, supported by departmental funds. Feedback sent to Teaching Office and Teaching Committee.  Offer to host CUWiP in 2021 / at a future date.
<b>B.21</b>	1	Improve support and feedback for MRes, MPhil and PhD students.	2018 survey showed that postgraduate students would welcome more support and feedback.	Focus group with postgraduates and supervisors to discuss improvement of support and feedback.  Strategy agreed and implemented.	Q4 2018	ongoing	Director for Graduate Education, Graduate Office and Graduate Course organisers	Positive feedback received by Graduate Consultative Committee, and >90% postgraduate students report they feel they get enough feedback in survey.

B.22	1	Final year postgraduate review with Supervisor or Advisor.	To improve guidance and support for PhD students	Review paperwork completed. Reviews scheduled.	Q4 2018	ongoing	Director of Graduate Education, Graduate Office	Reviews undertaken and improvement in PhD completion rates demonstrated.
B.23	1	Workshops for final year PhD students (writing, fellowships etc).	To improve support for final year PhD students	Workshops organised	Q2 2019	Annual	Director of Graduate Education, Graduate Office	Positive feedback received by Graduate Consultative Committee, and in postgraduate surveys.
B.24	1	Enhance annual postgraduate alumni/ae event	Provide a gender balanced set of role models	Speakers routinely providing good representation of gender and background	Q4 2018	Q2 2019 and then annually	Director of Graduate Education	Broad gender and background balance of speakers validated
B.25	1	Roll-out compulsory ED&I training for all undergraduate and postgraduate students.	ED&I training mandatory for all staff. Now make mandatory for all students.	Students pre-informed of Departments policy and can complete online ED&I training once given University computer account.  Start of year induction sessions to include ED&I training.  Undergraduate students will not have access to laboratories without being trained.  Postgraduate students will not have access to the Department without being trained.	Q4 2018	Annual cohorts	HoD, Teaching Office, Directors of Postgraduate and UG Teaching.	Undergraduates: 100% trained, Dec 2018.  Postgraduates: 100% trained, Dec 2018.
<b>C</b> Key career transition points, appointments and promotions								
C.1	2	Survey applicants, especially women, if personal contact prior to advertising an Academic post is welcome.	Search Committees to be more proactive in reaching out to potential women applicants to Lectureships.	Each recruitment exercise to include dedicated Search Committee who contact potential women applicants.	Q3 2018	Ongoing	HoD Office	Search Committee demonstrate significant field of applicants, including a percentage of women larger than the field as a whole.  Women applicants report welcome contact prior to advertising of Lectureship post.
C.2	2	Embed new academic recruitment policy and practices.	Review of University recruitment practice completed in Q1	Embed new University recruitment policy	Q4 2018	Q1 2019	DA, HoD, HoD Office.	New University policy and procedure embedded in

			2018. University in process of adopting the new policy and practices.	and procedure.				Department.
C.3	2	Investigate individual PI practices concerning RA recruitment, and provide guidelines for best practice.	Evidence that RA recruitment practices across Department are not uniform.	Gather further information on individual PI RA recruitment.  Provide guidelines for best practice.	Q2 2019	Q4 2019	DA, Departmental hubs, Pls	All Pls use standard RA recruitment practice.
C.4	2	Investigate joint appointment opportunities with Colleges targeted at women.	Follow-on from current relationship with Murray-Edwards College.	Joint appointments identified.	Q2 2018	Q4 2021	HoD, Pls	Work with Colleges and Alumni and Development office to identify opportunities for joint appointments.
C.5	2	Modify all staff job role descriptions and adverts to comply with best practice for attracting under-represented groups by gender and intersectionality.	Percentage of BME staff is below local percentage in local workforce.	Investigate wording in job role descriptions and adverts etc that will attract BME staff.	Q1 2019	Q1 2020	DA, HR Manager, HoD	Employ more BME staff than local BME workforce (18%).
C.6	3	Review and encourage Research staff promotions through the Staff Review and Development process.	Evidence that RA promotion support across Department is not uniform.	Review SRD process.  Run Research staff survey and focus group.	Q4 2019	Ongoing	DA, HR Manager, HoD	RA promotion guidance and support is reviewed through SRD process. RAs report 100% satisfaction with process.
C.7	2	Run BME focus groups and trial advertising in local newspapers and job web-sites.	Percentage of BME staff is below local percentage in local workforce.	Run BME staff focus group.  Trial advertising.	Q1 2019	Q1 2020	DA, HR Manager, HoD	Employ more BME staff than local BME workforce (18%).
C.8	2	Host equal numbers of W/M and minority groups apprentices.	2 apprentices currently employed. More technically-skilled staff are needed.	Review of technical services.  Identify technical-skills needs.  Advertise through Apprentice scheme.	Q4 2018	Q4 2020	DA, Laboratory Superintendent	Increase in number and diversity of apprentices.
<b>D Career advice and support</b>								
D.1		Undertake a review and further promote Departmental mentoring scheme.	Mentoring scheme in place, Mentoring Champions trained.	Investigate take-up and success of Mentoring scheme.	Q3 2018	Q3 2018	DA, HR Manager, Mentoring Champions.	Mentoring scheme promoted and 100% staff satisfaction with mentoring scheme reported in surveys and focus groups.
D.2	3	Evaluate training guidance received in the SRD process and take-up through staff feedback by surveys or focus groups.	67% (63%) women (men) Academic and Research staff report that they are satisfied with training and development opportunities.	Evaluate guidance given in SRD process.	Q4 2018	Q4 2019	DA, HR Manager	>80% staff report they are satisfied with guidance given about training and development opportunities.
D.3		Embed Research staff training budget in SRD process.						
D.4	4	Follow-up Research staff who have not undergone ED&I training.	Survey results show that not all Research staff have been ED&I trained.	Continue ED&I training at induction.  Follow-up with individual Research staff who have not been ED&I trained.	Q3 2018	Q3 2019	HR Manager	100% Research staff report in surveys that they have been ED&I trained.
D.5	2	Make Recruitment Essentials training	Requirement of new University policy and	Register all Academic staff and	Q4 2018	Q4 2020	Da, HoD office	100% of members of Selection and

		compulsory for all involved with recruitment.	procedures for Academic recruitment.	other staff involved with recruitment on Recruitment Essentials training.				Recruitment panels have undertaken "Recruitment Essentials" training.
D.6	4	Continue to host Unconscious Bias workshops	Positive feedback on previous UB workshops received in surveys and focus groups.	Annual UB workshops ran.	Q3 2019	Annual	Chair of SAT, HR Manager	>50% staff and students have attended at least 1 workshop, and report via surveys and focus groups that the workshops have changed their way of treating minority groups.
D.7	3	All line-managers to attend line-management and SRD training.	Departmental mandatory requirement that all line-managers undergo line-management and SRD training.	4 sessions run each year.	Q4 2018	Ongoing	HR Manager	>90% line-managers trained. 100% staff satisfaction that they are treated with respect.
D.8	3	Measure the effectiveness of the SRD process through staff feedback by surveys or focus groups.	New SRD guidelines launched in 2018.	Measure effectiveness of SRD process every 2-3 years.	Q2 2020	Every 2-3 years	DA, HR Manager	>80% staff report that they are satisfied with SRD process.
D.9	3	Identify a senior academic to lead the formal grant support scheme, and new scheme put in place and promoted.	Current grant support system informal.	Identify lead Academic. Write proposal to be approved by Cavendish Board. Launch scheme.	Q4 2018	Q1 2019	HoD, Lead of Grant Support scheme	Lead for grant support scheme identified. Proposal written and approved by Cavendish Board. Scheme launched.
D.10	3	Promote training and development opportunities to all PSS, including those in technical and support roles.	90% (62%) women (men) PSS know where to find training and development information.	Produce information leaflet/email.	Q4 2018	Ongoing	DA, HR Manager	100% of PSS know where to find training and development opportunities.
D.11	3	Run focus group on PSS training support to evaluate training opportunities and guidance received through SRD process.	Only 66% (35%) of women (men) PSS were satisfied with the opportunities they receive.	Run focus group on PSS training. Feedback needs to central HR & PPD team.	Q1 2020	Q1 2021	DA, HR Manager	>75% of PSS satisfied with training support and opportunities.
D.12	4	Reverse mentoring and other schemes identified in "Collaborating with Men"	Focus groups and surveys regularly discuss experience of culture in the workplace e.g. in meetings, networks etc.	School Council approve "Collaborating with men" survey. Run survey in Department and feedback results. Follow-up sessions with trained facilitator. Assign "Reverse mentoring" pairs, and feedback.	Q3 2018	Q3 2020	SAT Chair, HoD, DA, HR Manager	>70% return for survey and attendance at follow-up sessions. Positive feedback from "Reverse mentoring" pairs.

E	Culture, communications and departmental organisation							
E.1	4	Ensure that the needs of staff and students are met in the development of Cavendish III by requiring that the family-friendly facilities are retained as the building is realised under strict financial constraint.	Financial constraints in the building of Cavendish III may impinge on needs of staff and students, and implementation of family-friendly facilities.	Regular Cavendish III User meetings to discuss details of design and build.	Q1 2018	Q4 2022	HoD, Cavendish III “User”	All family-friendly facilities are retained in build of Cavendish III.
E.2	1	Update the Outreach Log so that all contributions, gender and protected characteristics are recorded in a few-clicks process, and to make it more useful for grant application and REF impact cases.	Outreach log is voluntary and not practical for several uses.	Assess needs or users.  Develop and launch new Outreach Log.	Q4 2019	Q4 2020	Outreach team, IT team, users	100% user satisfaction with new Outreach Log that useful for many applications.
E.3	4	Investigate and introduce best practice for day-to-day communications that impact on personal work experience and sense of community.	Focus groups reported the need for more day-to-day communications.	Run focus group to discuss communications.  Proposal from Personnel Committee to Cavendish Board.  Implement proposal across Department.	Q4 2018	Q4 2020	Personnel Committee, DA	>75% staff satisfaction reported in staff survey about day-to-day communications in the Department.
E.4	4	Cavendish Collection and public displays highlights successful women and diversity of the Department.	Cavendish Collection very historical with many images of men. Balance with displays of successful women and diversity of the Department.	Initial design and placement of images and displays in vicinity of Collection.  Collect stories and images from identified members of staff and students.  Produce new displays, put in place and launch with an event.	Q1 2019	Q1 2021	Collection Curator, HoD	Positive feedback from staff, students and visitors about new images and displays in Collection.
E.5	4	Review nominations process for prize and awards to ensure that full range of opportunities and potential candidates is considered.	Cavendish staff are very successful at being nominated and receiving accolades, although many opportunities are missed, especially for women and diversity.	HoD to discuss with Nominations Committee, and request input of award schemes from all staff.	Q3 2018	Ongoing	HoD, Nominations Committee	Increase in number of awards that staff and students receive, and more exposure in Cavendish news and publications.
E.6	4	Launch Cavendish LGBT+ and BME networks.	Embed inclusivity in the Department culture and provide a welcoming and support ing	Invite interested staff to form networks and meet to discuss needs.	Q4 2019	Q4 2020	Cavendish Community Forum Chair	Target: Networks launched and active, with positive feedback from community.

			environment for minority communities.					
<b>F</b>		<b>Career breaks and flexible working</b>						
<b>F.1</b>	5	Ensure that postgraduate students taking caring leave are treated the same way as staff and that they receive support on return.	Survey feedback says that 20% postgraduate students take caring leave.	Prepare information leaflet and inform postgraduate students.	Q3 2018	Ongoing	Director of Graduate Education, Graduate Office, HR Manager	100% feedback through graduate student survey that they know what to do if they intend to take parental leave.
<b>F.2</b>	5	Update the Department's policies and procedures to cater for the needs of staff taking any sort of caring leave.	Substantial number of staff have non-childcare caring responsibilities	Make sure all Departmental documentation on care leave caters for all types of leave.	Q3 2018	Ongoing	DA, HR Manager	100% feedback through survey that staff know what to do if they intend to take all types of caring leave.
<b>F.3</b>	5	Further promote opportunities to all staff for flexible working and shared parental leave.	2018 survey showed that staff and students not all aware of opportunities for flexible working and parental leave.	Write slides for staff meeting and produce new leaflets for promotion on notice board.	Q1 2019	Annual	DA, HR Manager	Increased take-up of flexible working and shared parental leave seen. Feedback reports that 100% staff and students have been informed.
<b>F.4</b>	5	Develop additional support for flexible working and caring leave in response to feedback.	Very few members of staff take Shared Parental leave.	Run a targeted focus group on flexible working and caring leave to address any issues in support for staff.	Q4 2019	Annual	DA, HR Manager	Increased take-up of flexible working and shared parental leave. Feedback reports that 100% staff and students have been informed and feel fully supported.
<b>F.5</b>	4/5	Ensure all forms of care leave are taken into account in the Workload Model.	Care leave currently not taken into account in workload model	Update Workload Model.	Q1 2019	Q1 2019	Workload Model manager	Care leave now taken into account in Workload Model.
<b>G</b>		<b>Professional conduct, harassment and bullying</b>						
<b>G.1</b>	6	Send two harassment officers on a training course.	Harassment officers still to be trained.	Book harassment officers on course.	Q3 2018	Q3 2018	HR Manager, Harassment officers	Harassment officers are fully trained.
<b>G.2</b>	6	Host annual "Breaking the Silence" workshops for students and staff.	Department has zero-tolerance policy on bullying and harassment, and is an advocate of the University's "Breaking the Silence" initiative.	Run workshops for students and staff on "Breaking the Silence" hosted by the HoD.	Q1 2019	Annual	HR Manager	100% staff and students reporting no incidences, and 100% staff and students feel they can report without a negative impact on them.
<b>G.3</b>	6	Assess impact of "Good Lads" initiative on working practice in Department, and host future workshops.	Individuals report uncomfortable working environment in male-dominated groups in Department.	HoD funded workshops by the "Good Lads" initiative.  Repeat feedback reports workshops are successful.	Q2 2018	On demand	HoD, HR Manager	Positive feedback from individuals who were uncomfortable about male-dominated working environment.  Positive feedback from those attending "Good Lads" workshop.
<b>H</b>		<b>University, National and International ED&amp;I</b>						
<b>H.1</b>	2	Participate in the University review of the HoD role to attract senior women into the	HoD role known not to attract women; all HoDs in School are men.	Attend VC discussion sessions and provide input to report.	Q2 2018	Q4 2018	HoD and Val Gibson	Recommendation report written by central HR, including our feedback.

		role.						
H.2	1	Key members of the Department will play a key active role in the University 's review of the Gender Pay Gap and job roles.	University has 19.6% gender pay gap.	University to organise workstreams to address gender pay gap.	Q1 2018	Q4 2019	HoD, Val Gibson	Participate in gender pay gap workstreams and report progress to Department.
H.3	4	Launch the Cavendish Conference series that will have equality at its core.	New initiative to host a series of Cavendish Conferences that have equality at the core of the organisation and delivery.	Identify conference team. Organise 1 <sup>st</sup> Cavendish conference with equal numbers of women/men attendees, speakers etc.	Q1 2019	Q3 2020, then biannually	HoD, Conference Chair	Identify staff members and conference team to lead. 1 <sup>st</sup> conference 2020. Positive feedback.
H.4	4	Produce set of women in physics films to distribute nationally.	Contact already made, dates for filmmaker to visit to be arranged.	Contract flm-maker to make films. Identify suitable women in Department.	Q1 2019	Q1 2020	HoD, CiW	Set of films completed, distributed to schools and published on the Department web-site
H.5	n/a	Develop a strategy in consultation with the IoP ED&I team for the Department's plan for attaining Juno Excellence standard.	Juno Excellence scheme launched in 2018.	Once Juno guidelines received, organise meeting with IoP Juno team to discuss Cambridge strategy.	Q4 2018	Q4 2021	SAT, HoD	Agreed 2-3 year Juno Excellence programme with IoP.