Department Application
Gold Award

ATHENA SWAN GOLD DEPARTMENT AWARDS

A Gold department award recognises sustained progression and achievement, by the department, in promoting gender equality and addressing challenges particular to the discipline. A well-established record of activity and achievement in working towards gender equality should be complemented by data demonstrating continued impact. Gold departments should be beacons of achievement in gender equality, and should champion and promote good practice to the wider community.

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

COMPLETING THE FORM

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

This form should be used for applications for Gold department awards.

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

WORD COUNT

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

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

We have provided the following recommendations as a guide.

Gold Department application	
Word limit	**13,000**
Recommended word count	
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

Name of institution	**University of Glasgow**
Department	**School of Physics and Astronomy**
Focus of department	**STEMM** ~~**AHSSBL**~~
Date of Gold application	**19 May 2018**
Date of current Silver award	**30 September 2016**
Institution Athena SWAN award	**Date: April 2013** **Level: Bronze**
Contact for application Must be based in the department	**Professor Lyndsay Fletcher**
Email	**lyndsay.fletcher@glasgow.ac.uk**
Telephone	**0141 330 5311**
Departmental website	**https://www.gla.ac.uk/schools/physics/**

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.

University of Glasgow | School of Physics & Astronomy

Athena SWAN Silver Award

Dr R. Gilligan,
Equality Charters manager,
Equality Challenge Unit,
First Floor, Westminster Tower,
3 Albert Embankment,
London,
SE1 7SP.

17th May 2018

Dear Dr Gilligan,

Application for an Athena SWAN Departmental Gold Award

I am delighted to endorse this application and confirm that it presents an honest, accurate and true representation of the School.

Our Athena SWAN journey began before my appointment as Head of School, with our 2011 Juno Champion award. Its subsequent renewal and translation to Athena SWAN Silver sharply focussed my personal commitment, and that of our senior management, to promoting a culture founded on equality and diversity. I believe that culture is now shared and supported across the entire School, infusing every aspect of its mission – from our collegiate approach to strategic planning to the respectful, inclusive student learning environment that we foster.

There is much work still to do and we acknowledge that in some areas our record lags behind the relevant UK average. Nevertheless, we have made significant progress – as evidenced by the many quantitative and qualitative indicators presented here. Our approach has been comprehensive and thorough, seeking first to diagnose and understand the barriers to equality before developing solutions that are well thought-out, sustainable and owned by stakeholders across all career stages and job families. Some examples of our commitment to these efforts, and their success to date, are as follows:

- Since 2011-12 increasing threefold the membership of our Juno Committee, with the Chair formally reporting to Management Team every 2-3 months;

- Increasing our proportion of female Professors to 18%, well exceeding the national average of 11%;
- Transforming our annual School induction meeting to forefront our ethos and principles, and not merely presenting practical information;
- In the School's monthly newsletter highlighting equality issues, promoting improved work-life balance and celebrating broader achievements and personal life events (and not simply traditional measures of academic success) across our entire community;
- Pioneering more inclusive, evidence-focussed language for academic post advertisements, as well as offering carer expenses to applicants;
- Adopting a "core hours" policy for school-level meetings that better accommodates flexible working practices, and achieving a 100% success rate with formal applications for flexible working;
- Via our postdoctoral and PGR forums providing direct, regular communication between ECRs and senior management – a model showcased as best practice by the University.

The School benefits from outstanding female champions of equality and diversity on the national and international stage – from Christine Davies' pioneering contributions to Juno's earliest phase to Sheila Rowan's international leadership of gravitational-wave science and, as Scotland's Chief Scientific Adviser, championing of gender equality in STEM learning. Through her shining example and tireless advocacy, Lyndsay Fletcher has been an exceptionally bright beacon, her national awards richly deserved. Key to Lyndsay's leadership approach, however, has been its inclusivity, ensuring that initiatives proposed by students and ECRs, such as our Women in Physics programme and "Girls into Physics" outreach events, are fully supported, nurtured and properly resourced – and thus embedded as vehicles for permanent culture change.

I am firmly committed to resourcing and implementing the comprehensive action plan presented here. This will be a shared endeavour, owned by our entire School community, and together we look forward to meeting the challenges it will present.

Yours sincerely

Prof Martin A. Hendry MBE FRSE FInstP FRAS

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The University of Glasgow, charity number SC004401

[Word count: 500 words]

Glossary:

CoSE – College of Science and Engineering
CROS – Careers in Research Online Survey
E&D – Equality and Diversity
EDU – (University) Equality and Diversity Unit
GESG – (University's) Gender Equality Steering Group
GU – Glasgow University
HoS – Head of School
HR – Human Resources
IOP – Institute of Physics
MPA – Management, professional and administrative staff
MVLS – (College of) Medical, Veterinary and Life Sciences
P&A – The School of Physics and Astronomy
P&DR – Performance and Development Review
P&SS – Professional and Support Staff
PGR – Postgraduate research (includes M.Sc. by research)
PGT – Posgraduate taught
PRES – Postgraduate Research Experience Survey
R&T - Research and Teaching
RAS – Royal Astronomical Society
RG – Research Group
RSC – Research and Strategy Committee
SMT – School Management Team
TLS – Teaching, Learning and Scholarship
UG – Undergraduate
WLM – Workload Model

NB throughout this application we use the term "academic" to refer to all staff of all grades on research and teaching, research-only or teaching-only (TLS) contracts.

All staff and student numbers are head counts.

2. DESCRIPTION OF THE DEPARTMENT

Recommended word count: 500 words

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

Overview: The School of Physics and Astronomy is a research-intensive department, with a highly international profile in a Scottish "Ancient" and Russell Group University, comprising 9 research groups and administrative, teaching and technical support teams. We have, by headcount, 138 academic staff (research & teaching, research-only), 56 professional and support, 156 postgraduate research (PGR) students, 37 postgraduate taught (PGT) students and 680 undergraduates taking courses leading to degrees including physics or astronomy, over years 1 to 5 of the Scottish curriculum (Tables 2.1-2.3)[1].

Table 2.1: Students on courses with 'Physics' and/or 'Astronomy' subject codes (census date 31 July 2017)

Course	*F*	*M*	***%F***	16/17 RG benchmark	16/17 HESA benchmark[2]
Undergraduate (all years)	177	503	**26.0%**	22.3%	**21.5%**
Total Postgraduate taught	17	20	**45.9%**	28.0%	**22.1%**
Postgraduate research (all years)	42	114	**26.9%**	24.6%	**22.1%**
All students	236	637	**27.0%**		

Table 2.2: Research and Teaching Staff headcount (census date 31 July 2017)

Grade and job family	*F*	*M*	***%F***	Benchmark[3]
Research assistant (grade 6/7)	6	46	**12%**	
Research associate/fellow (grade 8/9)	3	32	**8%**	
Total research-only staff	9	78	**10%**	**21%**
Lecturer (grade 6)	0	1	**0%**	
Lecturer (grade 7/8)[4]	2	12	**13%**	
Senior lecturer/reader (grade 9)	2	13	**14%**	
Total non-professorial R&T and TLS	4	26	**13%**	**18%**
Professor	4	17	**19%**	**11%**
All Research, R&T, and TLS staff	17	121	**12%**	**18%**

We are substantially ahead of national benchmarks for students, and have a relatively high fraction of female professors, but need to step up our efforts elsewhere.

[1] Rounded to the same number of decimal places as the benchmark

[2] HESA benchmark is calculated from HESA data based on all students on degrees reported as 'physics' or 'astronomy', which we believe is the best comparison for our School.

[3] Source: IOP Data Brief, July 2017, "Academic staff in UK Physics Departments"

[4] Includes 4 male long-term fellowship holders who undertake limited lecturing duties but are counted as R&T as they will become lecturers at the end of their fellowships.

Table 2.3: Professional and support staff (census date 31 July 2017)

Grade	*F*	*M*	*%F*
Grade 2	0	1	**0%**
Grade 3	0	0	-
Grade 4	4	2	**66%**
Grade 5	4	2	**67%**
Grade 6	7	12	**37%**
Grade 7	4	10	**19%**
Grade 8	5	5	**50%**
All Professional and Support Staff	24	32	**43%**

Equality & Diversity: We became Institute of Physics (IOP) Juno Supporters in 2007, and now hold Institute of Physics Juno Champion and Athena SWAN Silver status (first awarded 2011 and 2013 respectively, and since renewed). We were the first Physics department in Scotland to receive these awards, and promote them widely to staff, students, visitors and prospective students, on web pages, at open days (Figure 1), School welcome events and staff meetings. As our previous Athena SWAN awards have been by translation from Juno, this Gold bid is the first time that we have made an application following the Athena SWAN process.

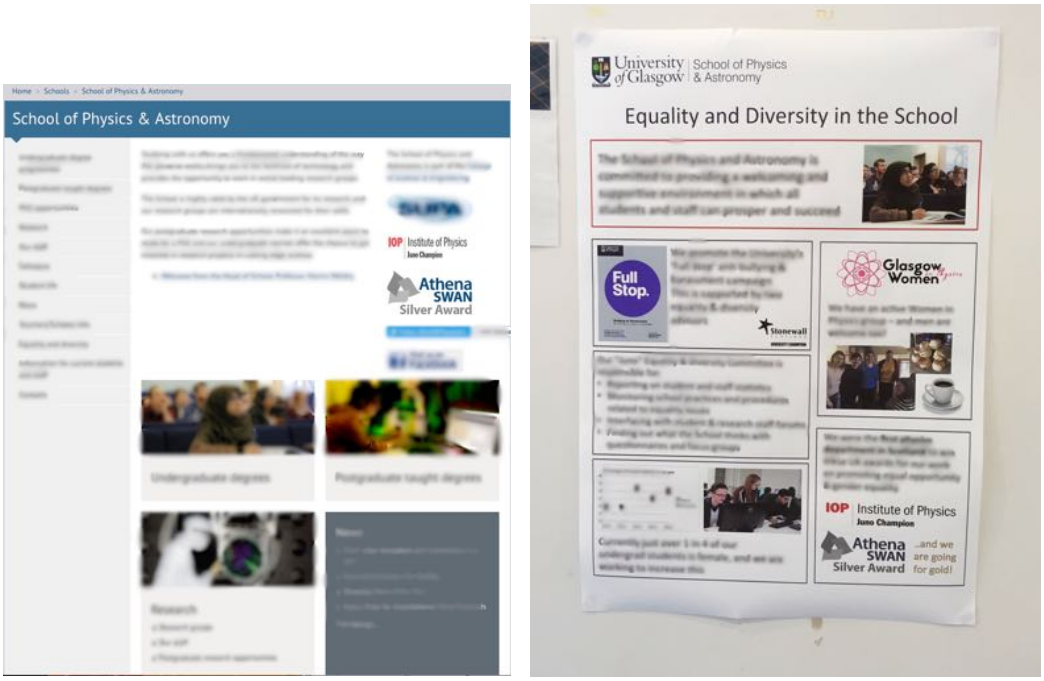

Figure 2.1. Snapshot of the School web page (9/4/18) and poster displayed at 2018 Open Days, demonstrating that we actively highlight our work and our existing awards.

Research: Our 9 research groups span theoretical, experimental and applied fields in physics and astrophysics, including the fundamental physics of the Universe (with high-profile involvement in the discovery of the Higgs Boson, and the detection of gravitational waves), the structure of the atomic nucleus, characterisation of materials at scales of a billionth of a metre, and advanced optical and imaging systems. We are

members of the Scottish Universities Physics Alliance (SUPA) research pool, and have used this to lead SUPA-wide Juno/Athena meetings in 2014 and 2017. Our current grant portfolio is £22.6M.

Teaching: We award undergraduate P&A degrees, at BSc and MSci, in 7 different subject combinations, and taught postgraduate MScs in 9 subjects. We also teach Level 1 courses to students from other Schools. With 47 R&T and TLS staff currently teaching, we have a high student-staff ratio for the sector leading to challenges in managing workloads, but also opportunities for research staff to be involved in demonstrating and lecturing (taken up by 24/79 researchers, 14%F). Teaching and research are closely intertwined: each student graduating at BSc (Hons) level has at least a 20-credit independent research project. All PGR students gain experience demonstrating and marking in undergraduate labs and whole-class tutorials.

Women in Roles of Leadership and Visibility: Our female staff members occupy high-profile roles visible to staff and students. For example, Prof. Christine Davies is Head of the Particle Physics Theory Group; Mrs. Angela Eden is Head of School Administration; Prof. Lyndsay Fletcher is Juno Committee (ASSAT) chair; Dr. Sonja Franke-Arnold is Head of the Optics Group and Prof. Sheila Rowan is Director of the Institute for Gravitational Research and Chief Scientific Advisor for Scotland.

[489 words]

3. THE SELF-ASSESSMENT PROCESS

Recommended word count: 1000 words

(i) a description of the self-assessment team

The Athena Swan Self-Assessment Team (still known as the "Juno Committee") developed from our IOP Project Juno work, forming in 2008 with 5 members (continuing members indicated by # in Table 3.1) led by the current Chair. For our Athena SWAN work, we extended the committee in September 2016 by direct approaches to individuals, following discussion with Head of School (HoS), line manager or PhD supervisor.

Table 3.1: Members of the Athena SWAN Self-Assessment Team ("Juno Committee") and their committee roles at time of submission.

Steve Barnett (SB)	M	Academic F/T	Quantum Theory Research professor and group leader. Father of two school-age children. Role: lead on research support issues.
Chris Bouchard (CB)	M	Academic F/T	New Lecturer in Particle Physics Theory. Single parent of a teenage girl. Role: focus on new staff induction.
Andy Buckley (AB)	M	Academic F/T	Lecturer in particle physics. Parent of two school/nursery-age children. Role: work/life balance and PDRA conditions
Sarah Croke (SC, Deputy Chair)	F	Academic F/T	Lecturer in Quantum Theory. Three young children and recent maternity leave. Role: staff survey, caring leave, planning of application.
Angela Eden (AE)	F	MPA P/T	Head of School Administration. Line-manager for professional services staff. Part-time working mother of two school-age children. Role: representing MPA staff.
Katie Farrell (KF)	F	EDU F/T	Experience on University SATs and Athena SWAN panels, UG-PGT-PGR experience at UofG. In dual-career relationship. Role: liaison with EDU
Lyndsay Fletcher# (LF, Chair)	F	Academic F/T	Professor of Astrophysics. Dual-career family, no children, elderly parent. Role: chair, undergraduate matters, application lead.
Stefan Hild (SH)	M	Academic F/T	Professor in gravitational wave detection. Married, father of two children (2 and 6 years). Role: postgraduate matters
Mark Jones (MJ)	M	Technical, F/T	Technician. Dual career family, grown-up children. Role: representing technical and support staff.
Ian MacLaren# (IM)	M	Academic, F/T	Reader in Materials Physics. Married with a teenage son: Role: publishing statistics, maintaining equality webpages.
Rachael McLauchlan (RM)	F	MPA, P/T	Research support secretary. Part-time and compressed hours worker. Mother of two young children. Role: Committee admin support, web pages.
Monifa Phillips*	F	PhD, F/T	4th year materials physics PhD student. Role: PhD student representative, outreach information.
Hamish AS Reid# (HASR)	M	Postdoc, F/T	Post-doctoral research associate in Solar Physics. Married and father of an 18-month-old daughter. Role: post-doc matters
Sara Restuccia* (SR)	F	PhD, F/T	4th year Optics PhD student. Married to a mature student. Role: PhD student representative, PhD survey, outreach information.
Ermes Toninelli (ET)	M	PhD, F/T	4th year Optics PhD student. Married to a mature part-time student. Role: Centre for Doctoral Training (CDT) PhD student representative.
*Louise Clark (replaces MP)	F	PhD, P/T	4th year (part-time) mature PhD student in nuclear physics. Combining study with career. Role: PhD student representative
*Laura Cowan (replaces SR)	F	PhD, F/T	2nd Year PhD Student, computational imaging, partially funded by industry. Role: PhD representative, GU Women in Physics contact.

Constitution: The Committee includes PhD students and staff at various grades, with varied professional roles and working patterns. Members have identified responsibilities, and hours allocated in the School Workload Model (WLM) are consistent with recommendations of the University's Gender Equality Steering Group (GESG). Formal Terms of Reference are reviewed and agreed every October, and approved by SMT.

Remit: the committee promotes E&D initiatives in the School and, where possible, beyond; ensures implementation of University policies; reviews evidence and formulates actions; supports the implementation of the current action plan; assists with forums, surveys and presentations; contributes to writing applications; reports to the SMT and HoS; actively provides communication channels with all staff and students.

(ii) an account of the self-assessment process

We seek to engage the whole School in our self-assessment work by (i) embedding E&D considerations in all School activities; (ii) communicating and promoting our purpose, goals and achievements throughout the School and beyond; (iii) encouraging participation in and celebration of E&D work by all School members; (iv) sharing our insights and experience of E&D initiatives.

Timeline: We embarked first on IOP Juno, gaining Supporter status (2007), Practitioner (2010) and Champion (2011, 2015) translated to Athena SWAN Silver (2013, 2016) after the University obtained Athena SWAN Bronze. The committee expanded (Table 3.1), the pace of meetings increased in September 2016 (11 since then) and smaller subgroups formed. We have continued with our Juno Champion Action Plan, integrating the well-aligned actions into our work for Gold submission.

Meetings: The agenda, composed by the Chair and Deputy, includes input from committee members, School committees and others. An online repository holds Minutes, actions and papers, statistical information and reports. It is advertised and open to anyone in the School who requests access (confidential information is redacted). Meetings are arranged within core hours (10am-4pm) by online poll.

Statistical information: Primary data comes from central University systems – the 'MyCampus' student database and the 'Core' HR database, reality-checked against School records and supplemented by data collected internally (e.g. Open Day visitors, leavers' information database). HESA Benchmarking data is provided by the IOP and the University via HeidiPlus.

Surveys: To avoid 'survey fatigue' we combine University and national survey with School-issued follow-up surveys. Our sources are:

- University-wide Staff Satisfaction Surveys 2014 (response rate - 58%; 2016 - 60%)
- School Staff Survey 2017 (65% overall, with 49/51 (96%) R&T and teaching-only, 42/87 (48%) Research-only and 30/56 (54%) of P&SS staff responding)
- UK-wide CROS surveys 2015 (32/78 = 41%)
- UK-wide PRES surveys (2015 - 58%; 2017 - 40%)
- PGR student exit questionnaires (ongoing)

Forums/focus groups: We receive input from Postgraduate and Postdoctoral Forums which meet every 6 months, from two postgraduate focus groups convened to explore gendered perceptions of the School Environment, and to understand the PRES results, and a focus group of new hires who explored induction processes.

Communication: The Committee is tightly woven into School governance. Athena SWAN is a standing item on the biannual Research and Teaching Staff Forum, the 4-monthly Research and Strategy meetings, and the Recruitment and Teaching committees. The Juno Chair attends SMT 3-4 times annually providing direct communication with HoS, Head of School Admin, Head of Teaching, PGR Committee Chair, and Postdoc Representative. The Postdoc and Postgrad Forums report to the HoS and the Chair.

External relations: committee members interface broadly with University and external committees having oversight of E&D issues and/or student and staff support. Our committee includes a member of the University E&D unit. We thereby deepen our understanding of E&D activity, give input according to our experiences, and make sure our work is aligned with other activities. A sample in Table 3.2 shows the scope of this.

Table 3.2: P&A Members of the Athena SWAN Self-Assessment Team ("Juno Committee") and their committee roles at time of submission

Name	Dates	Committee
Lyndsay Fletcher	2011-	Glasgow University (GU) Gender Equality Steering Group (GESG)
Ian MacLaren	2015 -	Deputises on GESG
Sarah Croke	2017-	GU Gender Action Plan Committee
Hamish AS Reid	2016 -	GU Postdoc Forum, SUPA postdoc representative
Lyndsay Fletcher	2017-18	Deputising for University Gender Champion, Scottish Funding Council Gender Governance Group
Lyndsay Fletcher	2015-17	GU College of Medical, Veterinary and Life Sciences Gender Equality Committee
Steve Barnett	2017	Lead on E&D guidelines for "Quantum Technologies" CDT

In preparing for this application, committee members have participated in workshops and seminars on equality and diversity, including presentations from expert speakers on E&D issues;

- National Astronomy Meeting Equality & Diversity sessions, 2015/16/17 (HASR);
- IOP "Going for Gold" meeting, 12/2015 (LF, HASR);
- SUPA workshop "Making Progress on Gender equality in Physics Higher Education" (SC-organised), 06/2017; (SC, SB, KF)
- IOP "Juno Excellence" launch, 10/2017 (LF)
- WISE Webinar "Action Plans for Successful Athena SWAN Submissions"10/2017 (LF, SC)
- LIGO/VIRGO Collaboration "Gender Bias in Science" 03/2018 (IMcL)

External reading included reports on gender inequality in schools (IOP); postgraduate and postdoctoral careers (IOP, Royal Society of Chemistry, Royal Astronomical Society); scholarly articles, and other Silver and Gold applications.

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

We will meet regularly to progress our action plan, examine ongoing statistics, and plan for relevant events, with annual events highlighted in our School Calendar providing additional momentum. We intend to apply for IOP Juno "Excellence" in 2019; until then

the frequency of meetings will be maintained, reducing to 3 – 4 times/year until the next SWAN/Juno application is in sight. Ongoing outcomes of the action plan will be disseminated to the School as outlined above.

The current Chair will step down at the start of 2018/19 academic year. The Deputy will take over, with a new Deputy appointed. Existing members with over 5 years' service will have the chance to step down, with replacements sought from volunteers, and consultation with HoS. PhD and Postdoc replacements will be found by a call for volunteers and approaches by committee members.

3.1	Appoint new chair and deputy for the Juno committee to ensure continuity, and refresh membership.
3.2	Produce an online calendar of events for the committee's attention, to help structure future work
3.3	Apply for IOP 'Juno Excellence', appointing a committee member who is responsible for overseeing work on professional conduct together with the School and the University's Equality and Diversity Unit

[1000 words]

4. A PICTURE OF THE DEPARTMENT

Recommended word count: 2000 words

Note, we examine whether male/female differences are significant using a standard statistical test (defined as $p < 0.05$ using a χ^2 test against the null hypothesis of no difference). Unless indicated, differences are not significant.

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

Participants on the University's 6-week summer school include Undergraduate (UG) applicants who attend e.g. for extra credits to fulfil conditional offer requirements. Table 4.1 shows female proportions on the physics course, consistent with our UG data, with year-to-year fluctuation due to small numbers |

Table 4.1 Numbers of M/F pre-University summer school participants taking Physics

Summer School Participants				
	F	**M**	**TOTAL**	**% F**
2011/2012	8	20	28	**29%**
2012/2013	4	27	31	**13%**
2013/2014	6	19	22	**27%**
2014/2015	8	22	30	**27%**
2015/2016	5	22	27	**19%**
2016/2017	10	23	33	**30%**
Total:	41	133	171	**24%**

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(ii) Numbers of undergraduate students by gender

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

a) Total Undergraduate Population:

The proportion of female UGs[5] studying Physics or joint Physics/Astronomy has been above the Russell Group Average in 3 of the last 5 years, rising between 2013/14 and 2016/17.

[5]All undergraduates studying full-time

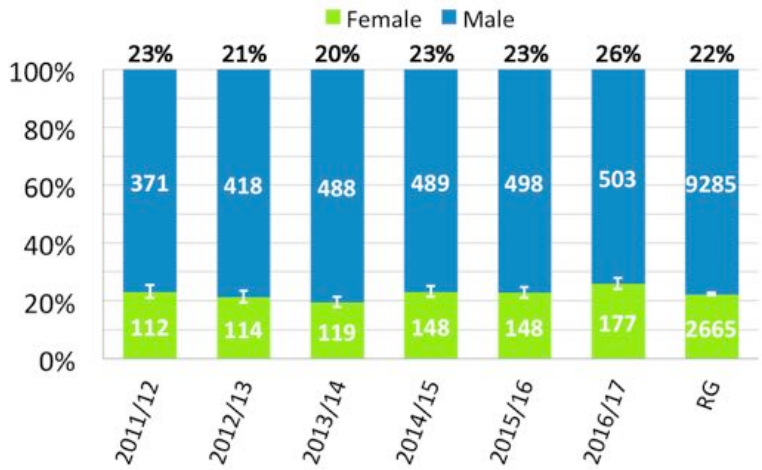


Figure 4.1. Population of full-time M/F undergraduate students on degree programmes in all years (1-5) including physics and/or astronomy, by percentage and number. The white bars are the margins of error on the percentages (statistical uncertainties)[6]. Female percentages are indicated above the columns. RG = Russell Group benchmark.

The increasing female percentage results from the increasing percentage at Level 1 intake from 2012/13 onwards (Fig. 4.2). As this cohort feeds through the female percentage will increase further. There is a statistically significant increase in %Female between the periods 2011-2013 and 2014-2016.

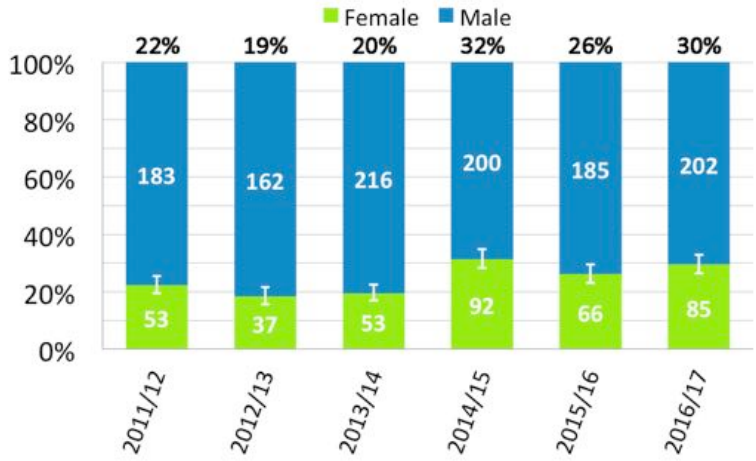


Figure 4.1: Population of M/F undergraduate students taking Level 1 Physics, by percentage and number. The white bars are the margins of error (3-4%) on the percentages (statistical uncertainties).

[6] Benchmarking data is from Russell Group HESE data for 2015/16 (2016/17 not available during Self-Assessment- now sits at 23% for 2016/17- lower than our figure of 26%).

b) Breakdown by M.Sci./B.Sc.:

The %Female has increased over the period for B.Sc. and M.Sci. degrees.

The M.Sci. is increasing in popularity overall, and female students opt for the 5-year M.Sci. and the 4-year B.Sc. in equal proportions to men. This illustrates the same level of ambition and support offered to all students.

M.Sci.

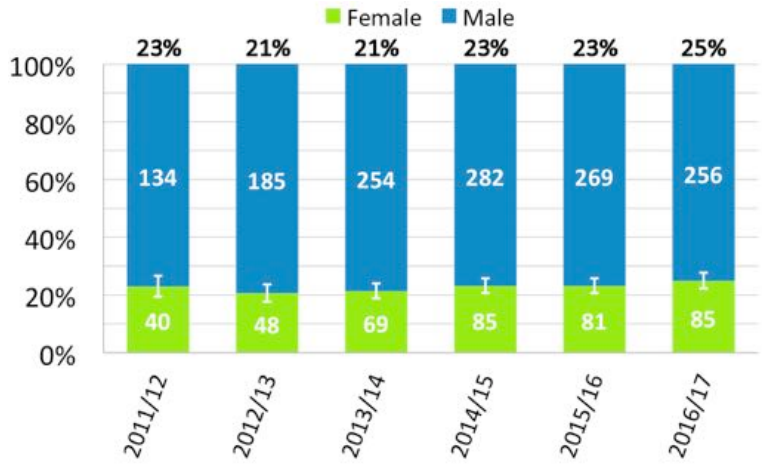


Figure 4.2 Female/Male students at Level 3 and above on M.Sci. degree programmes including physics and/or astronomy by percentage and number. White bars are margins of error on the percentages (statistical uncertainties)

B.Sc.

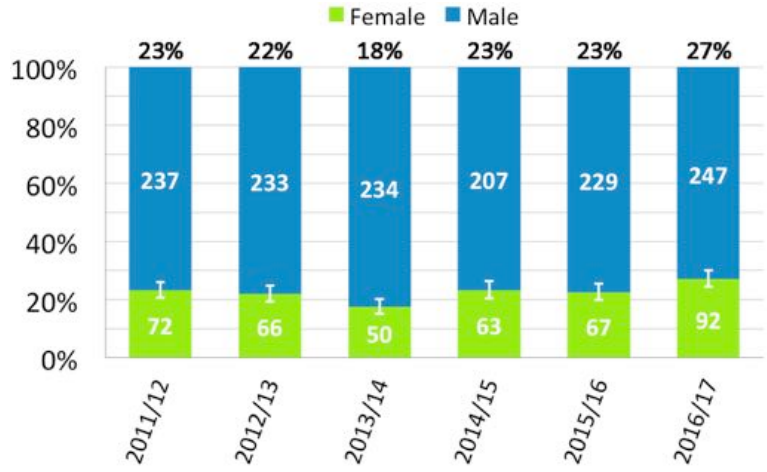


Figure 4.3 Male/Female students at Level 3 and above on B.Sc. degree programmes including physics and/or astronomy, by percentage and number. White bars are margins of error on the percentages (statistical uncertainties)

c) Course Applications, Offers, and Acceptance Rates

Female success rate at offer is slightly higher on average than for males. There is no statistically significant gender difference in acceptance rates. The increased female percentage in Level 1 intake (Fig 4.2) reflects a corresponding increase in the percentage of female applications since 2014/15.

Undergraduate		Gender (n)		Gender (%)		Success/Accept Rate	
		F	M	F	M	F	M
2011/12	Applications	299	962	**24%**	76%		
	Offers	211	625	**25%**	75%	71%	65%
	Acceptances	56	166	**25%**	75%	27%	27%
2012/13	Applications	291	915	**24%**	76%		
	Offers	195	567	**26%**	74%	67%	62%
	Acceptances	39	144	**21%**	79%	20%	25%
2013/14	Applications	273	893	**23%**	77%		
	Offers	187	603	**24%**	76%	68%	68%
	Acceptances	61	217	**22%**	78%	33%	36%
2014/15	Applications	306	724	**30%**	70%		
	Offers	243	538	**31%**	69%	79%	74%
	Acceptances	87	182	**32%**	68%	36%	34%
2015/16	Applications	254	720	**26%**	74%		
	Offers	206	567	**27%**	73%	81%	79%
	Acceptances	60	172	**26%**	74%	29%	30%
2016/17	Applications	284	700	**29%**	71%		
	Offers	226	545	**29%**	71%	80%	78%
	Acceptances	58	132	**31%**	69%	26%	24%
Total	**Applications**	**1707**	**4914**	**26%**	**74%**		
	Offers	**1268**	**3445**	**27%**	**73%**	**74%**	**70%**
	Acceptances	**361**	**1013**	**26%**	**74%**	**28%**	**29%**

Table 4.2 Undergraduate Applications, Offers and Acceptances by Gender 2011/12-2016/17

There are 3 Open Days held by the School throughout the year. June/September events are for students still to make UCAS applications. An Applicants' Day (AD) is for those who have already applied to the School.

We record data to compare the fraction of prospective students visiting against the fraction who subsequently apply (from UCAS data), and to assess the effect of our gender interventions (web-pages, open-day posters and presentations emphasising our Equality & Diversity work). In 2014 we revamped the web pages with more E&D information, which could have encouraged female applicants. Since 2016 we have highlighted E&D at the open days: we cannot yet say if this has had an effect, though the 2017/18 intake is 31% female.

In 2017 we ran a 'Girls into Physics' workshop to introduce S3 (Y9) girls to physics at University, aiming to further narrow the gender gap It attracted 135 girls (see 5.6 (i)).

Year	Open Day June			Open Day Sept		%F	Applicants' Day		
	F	M	% F	F	M		F	M	% F
2011/12	79	124	**39%**	192	428	**31%**	135	100	**57%**
2012/13	46	67	**41%**	191	418	**31%**	35	100	**53%**
2013/14	65	57	**53%**	175	325	**35%**	53	63	**46%**
2014/15	62	81	**43%**	98	248	**28%**	50	80	**38%**
2015/16	70	82	**46%**	120	230	**34%**	37	64	**37%**
2016/17	61	82	**43%**	86	242	**26%**	n/a	n/a	

Table 4.3 Female/Male prospective student visitors to Open and Applicants' Days

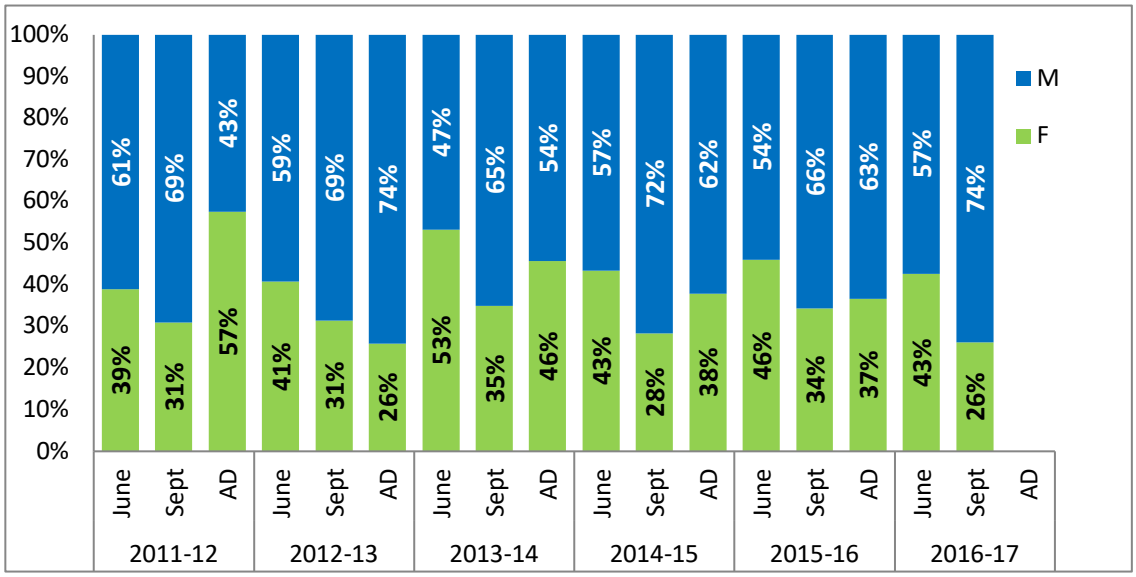


Figure 4.5 Female/Male prospective student visitors to Open and Applicants' Days

%Female Open Day attendees is systematically higher than %Female Applications. We do not yet know if this means female applicants to physics are *more* likely to visit, or that female attendees are *less* likely to subsequently apply.

In 2017/18 we issued a survey to Physics 1 students, regarding experiences studying Physics to date, and motivations for studying Physics at University. We found no significant gender differences in responses.

4.1	Expand Physics 1 survey to investigate students' motivations for coming to Glasgow and the role of Open Days, generally, and the School's Open Days, in particular, on decisions about course and place of study.
4.2	Embed the 'Girls into Physics' workshop, first run in 2018, as an annual event, co-organising also with Strathclyde university to broaden reach and support a sister department.

d) Degree Attainment:

Table 4.4 Degree Attainment data by Gender for BSc/MSci degrees 2011/12 – 2016/17

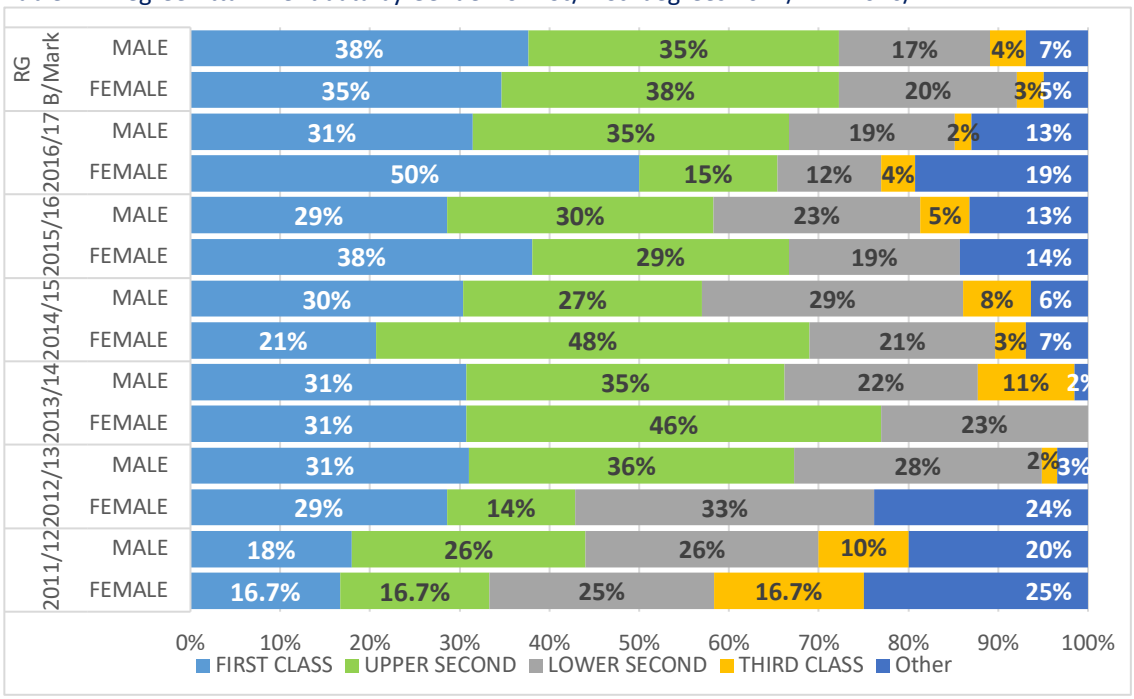


Figure 4.6 Undergraduate degree attainment by gender, all degrees (B.Sc. Hons and Designated, M.Sci)

There are large fluctuations between years, due to small numbers in each category. Totalling over 6 years (to improve statistics) we find no statistically significant differences in UG attainment by gender, though we award fewer 1st/II:1 degrees than the RG average.

Tables below present data disaggregated by M.Sci/B.Sc.

M.Sci.

BSc/MSci Physics and/or Astronomy	FIRST CLASS		UPPER SECOND		LOWER SECOND		THIRD CLASS		DESIGNATED DEGREE 'Other'		TOTAL
	F	M	F	M	F	M	F	M	F	M	
2011/12	2	9	2	13	3	13	2	5	3	10	**62**
2012/13	6	18	3	21	7	16	0	1	5	2	**79**
2013/14	4	20	6	23	3	14	0	7	0	1	**78**
2014/15	6	24	14	21	6	23	1	6	2	5	**108**
2015/16	8	26	6	27	4	21	0	5	3	12	**112**
2016/17	13	34	4	38	3	20	1	2	5	14	**134**
TOTAL	**39**	**131**	**35**	**143**	**26**	**107**	**4**	**26**	**18**	**44**	**573**
% of Total Awards to F/M	**32%**	**29%**	**29%**	**32%**	**21%**	**24%**	**3%**	**6%**	**15%**	**10%**	
RG Benchmark	**35%**	**38%**	**38%**	**35%**	**20%**	**17%**	**3%**	**4%**	**5%**	**7%**	

MSci Physics and/or Astronomy	FIRST CLASS		UPPER SECOND		LOWER SECOND		THIRD CLASS		TOTAL
	F	M	F	M	F	M	F	M	
2011/12	1	6	1	5	0	3	0	0	**16**
2012/13	6	11	2	4	0	3	0	0	**26**
2013/14	2	13	3	8	0	0	0	0	**26**
2014/15	4	20	7	9	2	6	0	1	**49**
2015/16	6	17	4	19	2	7	0	0	**55**
2016/17	9	24	1	14	1	3	0	0	**52**
TOTAL	**28**	**91**	**18**	**59**	**5**	**22**	**0**	**1**	**224**
% of Total Awards to F/M	**55%**	**53%**	**35%**	**34%**	**10%**	**13%**	**0%**	**1%**	

Table 4.5 Degree Attainment data by Gender for MSci degrees 2011/12 – 2016/17

BSc:

BSc Physics and/or Astronomy	FIRST CLASS		UPPER SECOND		LOWER SECOND		THIRD CLASS		TOTAL
	F	M	F	M	F	M	F	M	
2011/12	1	3	1	8	3	10	2	5	**33**
2012/13	0	7	1	17	7	13	0	1	**46**
2013/14	2	7	3	15	3	14	0	7	**51**
2014/15	2	4	7	12	4	17	1	5	**52**
2015/16	2	9	2	8	2	14	0	5	**42**
2016/17	4	10	3	24	2	17	1	2	**63**
TOTAL	**11**	**40**	**17**	**84**	**21**	**85**	**4**	**25**	**287**
% of Total Awards to F/M	**21%**	**17%**	**32%**	**36%**	**40%**	**36%**	**8%**	**11%**	

Table 4.6 Degree Attainment data by Gender for BSc degrees 2011/12 – 2016/17

Designated Degrees:

Designated Degree awardees complete after 3 years without pursuing the 4-year Honours degree. These differ from Ordinary Degrees that tend to be awarded in English Universities, and are not directly comparable with the 'other' category for RG benchmark. The overall fraction obtaining Designated Degree is low, at 62/573.

Designated degree	F	M	Total
2011/12	3	10	**13**
2012/13	5	2	**7**
2013/14	0	1	**1**
2014/15	2	5	**7**
2015/16	3	12	**15**
2016/17	5	14	**19**
TOTAL	18	44	**62**

Table 4.7 Degree Attainment data by Gender for Designated Degrees 2011/12 – 2016/17

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

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

a) Total Postgraduate Taught (PGT):

Our PGT offering started in 2010. We partner on a number of Centres for Doctoral Training (CDTs) that include MSc programmes in their 1+3 training model: these students are included in our PGR data below (Fig. 4.8).

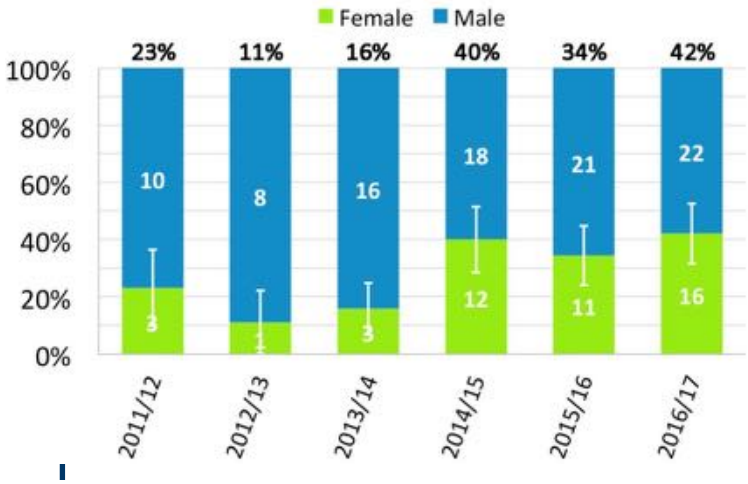


Figure 4.7 PGT Students by Gender 2011/12 – 2016/17
There was only one part-time student (Female) in 2014/15-2015/16.

Table 4.8 PGT students by programme 2011/12–2016/17

PROGRAMME	F	M	F %
Astrophysics	20	18	**53%**
Advanced Materials	7	11	**39%**
Energy & Environment	9	18	**33%**
Global Security **(Discontinued)**	0	1	**0%**
Life Sciences **(Discontinued)**	1	2	**33%**
Nuclear Technology	5	12	**29%**
Theoretical Physics	4	19	**17%**
TOTAL	**51**	**99**	**34%**

- %Female varies year-to-year, and across programme (margin of error on the percentage value is 9-10%). However, we see an upward trend in Female PGT students over the last 6 years.
- The 6-year average %Female PGT across all programmes is 34% compared to the Russell Group average of 28%.

b) Course Applications, Offers, and Acceptance Rates

Female and male success and acceptance rates are broadly comparable over the last 6 years.
There is an upward trend in the number of female applicants; the %Female applicants increased from **23%** in 2011/12 to **31%** in 2016/17.

Postgraduate Taught		Gender (n)		Gender (%)		Success/Accept Rate	
		F	M	F	M	F	M
2011/12	Applications	18	62	**23%**	78%		
	Offers	10	39	**20%**	80%	56%	63%
	Acceptances	4	17	**19%**	81%	40%	44%
2012/13	Applications	30	98	**23%**	77%		
	Offers	27	94	**22%**	78%	90%	96%
	Acceptances	12	48	**20%**	80%	44%	51%
2013/14	Applications	36	91	**28%**	72%		
	Offers	31	86	**26%**	74%	86%	95%
	Acceptances	16	41	**28%**	72%	52%	48%
2014/15	Applications	81	150	**35%**	65%		
	Offers	61	102	**37%**	63%	75%	68%
	Acceptances	28	50	**36%**	64%	46%	49%
2015/16	Applications	100	198	**34%**	66%		
	Offers	76	144	**35%**	65%	76%	73%
	Acceptances	38	79	**32%**	68%	50%	55%
2016/17	Applications	107	215	**33%**	67%		
	Offers	80	144	**36%**	64%	75%	67%
	Acceptances	39	65	**38%**	63%	49%	45%
TOTAL	**Applications**	**372**	**814**	**31%**	**69%**		
	Offers	**285**	**609**	**32%**	**68%**	**77%**	**75%**
	Acceptances	**137**	**300**	**31%**	**69%**	**48%**	**49%**

Table 4.9 PGT Applications, Offers and Acceptances by Gender 2011/12-2016/17

c) Degree Attainment:

Data show broadly similar attainment for male and female students over the period.

PGT Programmes	DISTINCTION		MERIT		QUALIFIED	
	F	M	F	M	F	M
2011/12	0	1	3	4	0	5
2012/13	0	0	1	1	0	7
2013/14	0	0	0	4	1	6
2014/15	1	3	4	4	3	3
2015/16	2	3	2	11	5	6
2016/17	2	2	4	7	7	2
TOTAL	**5**	**9**	**14**	**31**	**16**	**29**
% of Total Awards to F/M	**14%**	**13%**	**40%**	**45%**	**46%**	**42%**

Table 4.10 Degree Attainment data by Gender for BSc/MSci degrees 2011/12 – 2016/17

PGT students have a range of academic backgrounds and many are from overseas. To ensure robust support for transition to PGT study, we provide:

- Special induction for all new PGTs, including lunch and time for personal conversation between students and staff.
- Experienced PGT advisers of studies, who interview each student on arrival, co-designs their curriculum, and identify gaps in prior knowledge to recommend elective courses or self-study.

Comparable achievement levels indicate that this support is equally effective for male/female students.

We are the first School in the College to devise a bespoke exit questionnaire for PGT students (2017); our PGT convenor recently advocated successfully for this to be extended to other Schools across the College (See S.5.6(iii)- **Beacon Activity**).

Survey findings identified a need for better clarity around expectations of staff and student responsibilities on projects. The PGT convenor has created an updated Guidance Note for all staff and students to enhance understanding **(Action 4.2).**

4.3	Use PGT exit questionnaire to evaluate impact of new Guidance Note on student responsibilities and reasonable expectations of staff regarding clarity and consistency of support.

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

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

a) Total Postgraduate Research (PGR) Population:

There has been strong growth in PhD numbers due, in large part, to the School participating in three CDTs:

Table 4.11 School CDT participation and partner Universities

CDT NAME:	UNIVERSITY PARTNER(S):
Data-Intensive Science	Edinburgh; St Andrews
Photonic Integration and Advanced Data Storage	Glasgow, School of Engineering; Queen's University Belfast
Integrative Sensing and Measurement	Edinburgh

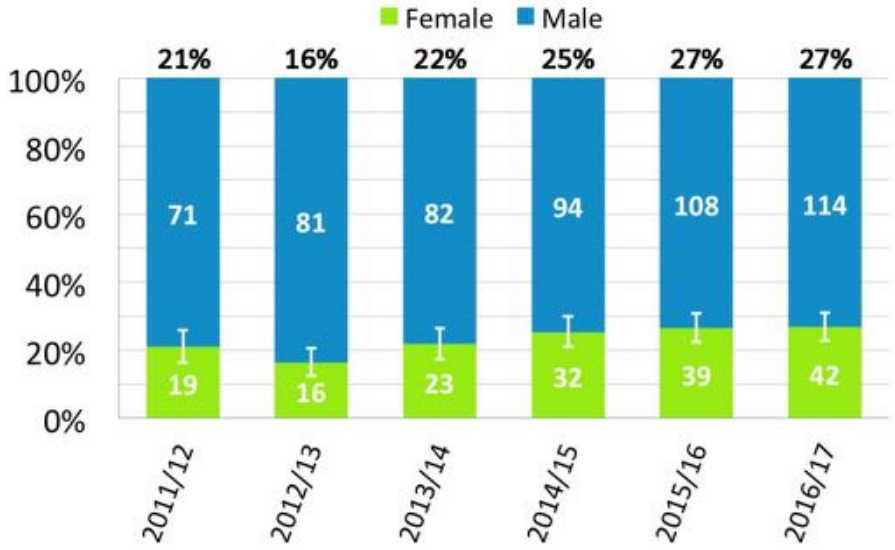


Figure 4.8 PGR (PhD) Students by Gender 2011/12 – 2016/17; data includes CDT students primarily based at Glasgow; one part-time student (Female) admitted in 2015/16

- %Female PhD students above Russell Group average of 24% for the last three years.
- Alongside overall growth in PhD cohorts (outlined above) there has been a small but systematic increase in the fraction of female PhD students.

We have small numbers of MSc by Research students and visiting PGRs, shown in Tables 4.13 and 4.13. Women are generally well represented.

Table 4.12: PGR Students: Master of Science (Research)

Year	F	M	%F
2011/12	1	1	**50%**
2012/13	0	1	**0%**
2013/14	1	3	**25%**
2014/15	1	5	**17%**
2015/16	2	5	**29%**
2016/17	3	1	**75%**
TOTAL	**8**	**16**	**33%**

Table 4.13: PGR visiting researchers

Year	F	M	%F
2011/12	1	1	**50%**
2012/13	1	1	**50%**
2013/14	1	2	**33%**
2014/15	0	3	**0%**
2015/16	0	2	**0%**
2016/17	0	0	**n/a**
TOTAL	**3**	**9**	**25%**

b) Course Applications, Offers, and Acceptances:

Postgraduate Research		Gender (n)		Gender (%)		Success/Accept Rate	
		F	M	F	M	F	M
2011/12	Applications	14	22	**39%**	61%		
	Offers	12	13	**48%**	52%	86%	59%
	Acceptances	10	11	**48%**	52%	83%	85%
2012/13	Applications	13	46	**22%**	78%		
	Offers	13	45	**22%**	78%	100%	98%
	Acceptances	6	32	**16%**	84%	46%	71%
2013/14	Applications	28	54	**34%**	66%		
	Offers	13	22	**37%**	63%	46%	41%
	Acceptances	12	19	**39%**	61%	92%	86%
2014/15	Applications	46	111	**29%**	71%		
	Offers	19	42	**31%**	69%	41%	38%
	Acceptances	16	33	**33%**	67%	84%	79%
2015/16	Applications	40	116	**26%**	74%		
	Offers	11	40	**22%**	78%	28%	34%
	Acceptances	10	36	**22%**	78%	91%	90%
2016/17	Applications	40	102	**28%**	72%		
	Offers	16	38	**30%**	70%	40%	37%
	Acceptances	9	34	**21%**	79%	56%	89%
TOTAL	**Applications**	**181**	**451**	**29%**	**71%**		
	Offers	**84**	**200**	**30%**	**70%**	**46%**	**44%**
	Acceptances	**63**	**165**	**28%**	**72%**	**75%**	**83%**

Table 4.14 Undergraduate Applications, Offers and Acceptances by Gender 2011/12-2016/17, The percentages refer to those progressing from the previous stage

There are large fluctuations in the female application rates and in female/male success and acceptance rates over this period.

The average success rate is comparable for male and female applicants, while the data show males accept offers in slightly higher proportions than females.

The 6-year average %Female applicants is 29%, well above the 22% female proportion in the potential applicant pool of UG graduates.

c) Degree Completion Rates:

Data show no significant differences in completion rates for male and female students

STATUS	F	M	Total	F %
Complete	25	92	117	**21%**
Incomplete	5	15	20	**25%**
Total	**30**	**107**	**137**	**22%**
% Incomplete	**17%**	**14%**	**15%**	

Table 4.15 Degree Completion Rates for PhD Students admitted 2008-2013, whose expected submission date has passed

The School's annual progression process identifies problems/barriers early and implements support measures, as necessary. It involves:

- Student progress report, reflecting on previous year's objectives and setting future objectives.
- Review of training completion, and training needs assessment.
- Supervisor report on student progress
- 30-minute progression interview to discuss progress, support required and aims for coming year.

(v) Progression pipeline between undergraduate and postgraduate student levels

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

We collect internal information, where possible, on the numbers of students who progress from UG to PhD or MSc by Research at Glasgow, versus those joining us from other institutes.

YEAR OF ENTRY	Non-UofG GRADS		UofG GRADS			
	F	M	F	M	TOTAL	%F
2012	3	9	2	12	26	**19.2%**
2013	7	11	2	4	24	**37.5%**
2014	7	7	5	15	34	**35.3%**
2015	3	6	2	15	26	**19.2%**
2016	2	11	4	10	27	**22.2%**
2017	2	4	7	8	21	**43.0%**
Total	**59**	**135**	**63**	**207**	**464**	**26.3%**

Table 4.16 New PhD entrants per year based on Graduate status (e.g. UofG or external) by Gender

For the 2012/13 – 2016/17 intake:

- 58% of PhDs are continuing UofG students;
- 23% of UofG continuing PhD students are female, comparing well to the average of 20-23% Female in the corresponding 3rd/4th year of the B.Sc./M.Sci. programme;
- Of the PhD students coming to Glasgow from other institutes, 30% are female.

Table 4.17 UG-PGT-PGR Female 'Pipeline' averaged over 2011/12 – 2016/17

STUDENT LEVELS	UG	PGT	PGR
6-YEAR AVERAGE %F	**23%**	**34%**	**23%**

There is continued representation of women in our UG and PGR cohorts over the last 6 years. However, there is a real drop-off between PhD and PDRA levels. We have investigated PhD experiences to understand this, commissioning a visual research methods project with PGRs. We found some interesting gender differences in students' willingness to discuss female underrepresentation. We further discuss this, and associated actions below (See S.5.6(iii)- **Beacon Activity**).

The 2017 Postgraduate Research Experience Survey (PRES) highlighted the view that there is a lack of positive role models.

Actions to improve understanding of why the female fraction decreases between PhD and postdoc positions.	
5.6.4	Continue to ensure strong diversity in Colloquium speakers.
5.6.5	Ask Colloquium speakers to include slides about career trajectory and work/life challenges and achievements to role model diverse experiences.
5.6.6	Include diverse images of inspiring scientists of all characteristics in our welcome screens in the rotating display on the screens in the Kelvin Building.
5.6.7	Follow up reluctance to discuss female under-representation in physics, in structured discussions with groups of PGR students, and informally at Women in Physics Group

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.

University's 3 main career tracks for "academic staff':

- **Research-Only**
- Teaching, Learning and Scholarship **(TLS, Teaching-only)**
- Research & Teaching **(R&T)**

GRADE	R&T ROLES	TEACHING-ONLY ROLES	RESEARCH-ONLY ROLES
GRADE 6	N/A	TEACHING ASSISTANT	RESEARCH ASSISTANT
GRADE 7	LECTURER	LECTURER	RESEARCH ASSISTANT/ASSOCIATE
GRADE 8	LECTURER	LECTURER	RESEARCH ASSOCIATE/FELLOW
GRADE 9	SENIOR LECTURER	SENIOR LECTURER	SENIOR RESEARCH FELLOW
READER	READER	N/A	N/A
PROFES-	PROFESSOR	PROFESSOR	N/A

Table 4.18 Grade and Role Structure for Academic and Research Staff at University of Glasgow

1. Research and Teaching (R&T) Roles

Table 4.19 Research and Teaching (R&T) Staff by Gender 2011/12 – 2016/17

R&T	F	M	%F
2011/12	5	33	**13.2%**
2012/13	6	34	**15.0%**
2013/14	7	32	**17.9%**
2014/15	7	34	**17.1%**
2015/16	7	35	**16.7%**
2016/17	7	37	**15.9%**

Table 4.20 R&T Staff by Grade and Gender 2011/12 – 2016/17

	GRADE 7			GRADE 8			GRADE 9			READER			PROF		
R&T	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	0	1	**0%**	1	6	**14.3%**	0	5	**0%**	1	6	**14.3%**	3	15	**16.7%**
2012/13	0	0	**N/A**	2	9	**18.2%**	0	5	**0%**	1	7	**12.5%**	3	13	**18.8%**
2013/14	0	0	**N/A**	2	4	**33.3%**	0	5	**0%**	2	9	**18.2%**	3	14	**17.6%**
2014/15	0	0	**N/A**	2	6	**25.0%**	0	4	**0%**	1	8	**11.1%**	4	16	**20.0%**
2015/16	0	0	**N/A**	2	6	**25.0%**	0	5	**0%**	1	8	**11.1%**	4	16	**20.0%**
2016/17	0	0	**N/A**	2	9	**18.2%**	0	5	**0%**	1	6	**14.3%**	4	18	**18.2%**

Year-to-year female staffing changes correspond to promotions rather than leavers/retiral; 2 Female Grade 8s joined in 2012/13 and 2013/14; the Grade 8 female in 2011/12 data advanced from Grade 8→Reader in 2013/14. Male staffing changes include promotions and resignations.

Our proportion of female Professors increased to c.18% by 2016/17; **considerably higher than 11% female Professors in UK Physics departments as reported by IoP in 2017[7].** We anticipate a good trajectory towards Professor for the current female Reader.

We provide strong support for female career progression, and so must focus on increasing female appointments **(See S.5.1(ii)).**

2. Teaching, Learning and Scholarship, ('Teaching') Roles:

TEACHING	F	M	%F
2011/12	1	2	**33.3%**
2012/13	1	3	**25.0%**
2013/14	1	4	**20.0%**
2014/15	1	4	**20.0%**
2015/16	1	4	**20.0%**
2016/17	1	4	**20.0%**

Table 4.21 Teaching Staff by Gender 2011/12 – 2016/17

[7] Source: Institute of Physics Data Brief "Academic Staff in UK Physics Departments", IOP, July 2017

TEACHING	GRADE 6			GRADE 7			GRADE 8			GRADE 9		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	0	0	**N/A**	0	0	**N/A**	1	2	**33.3%**	0	0	**0%**
2012/13	0	0	**N/A**	0	0	**N/A**	1	3	**25.0%**	0	0	**0%**
2013/14	0	0	**N/A**	0	0	**N/A**	1	4	**20.0%**	0	0	**0%**
2014/15	0	1	**0%**	0	0	**N/A**	1	1	**50.0%**	0	2	**0%**
2015/16	0	1	**0%**	0	0	**N/A**	1	1	**50.0%**	0	2	**0%**
2016/17	0	1	**0%**	0	0	**N/A**	0	1	**0.0%**	1	2	**33.3%**

Table 4.22 Teaching-only Staff by Grade and Gender 2011/12 – 2016/17

Women are slightly underrepresented in Teaching roles compared to RG and National comparators for Physics (28.8% and 30.8%, in 2016/17 respectively), although total numbers are low.

Teaching-only post holders have made a positive career choice and have a well-defined career track. We have supported promotion from Lecturer→Senior Lecturer transition for our 1 female and 2 male Grade 9s.

3. Research Only, 'Research' Roles:

RESEARCH	F	M	%F
2011/12	13	62	**17.3%**
2012/13	10	61	**14.1%**
2013/14	12	64	**15.8%**
2014/15	12	78	**13.3%**
2015/16	12	74	**14.0%**
2016/17	9	75	**10.7%**

Table 4.23 Research Staff by Gender 2011/12 – 2016/17

RESEARCH	GRADE 6			GRADE 7			GRADE 8			GRADE 9		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	6	10	**40.0%**	7	38	**17.5%**		16	**0.0%**	0	6	**0.0%**
2012/13	6	11	**31.3%**	5	33	**14.7%**		17	**0.0%**	0	6	**0.0%**
2013/14	5	12	**29.4%**	7	34	**18.9%**		18	**0.0%**	0	6	**0.0%**
2014/15	1	14	**6.7%**	9	40	**20.0%**	2	24	**8.0%**	0	5	**0.0%**
2015/16	5	15	**25.0%**	5	35	**13.5%**	2	23	**8.3%**	0	5	**0.0%**
2016/17	1	11	**8.3%**	5	35	**13.2%**	3	27	**10.3%**	0	5	**0.0%**

Table 4.24 Research Staff by Grade and Gender 2011/12 – 2016/17

Female research-only staff comprise c.11%, compared to UK average of 21%[8]. At the time of writing this has improved to n=11 and 13% female. Grade 6 posts often provide

[8] Source: Institute of Physics Data Brief "Academic Staff in UK Physics Departments", IOP, July 2017

fixed-term roles for PhD students nearing completion, and post-completion, leading to fluctuating numbers.

Promotion data (See S.5.2 (ii)) show 100% success rate for women applying for Grade 6 to 7. We will expedite progress by increasing the proportion of female applicants to Grade 7 positions at recruitment.

5.1.1	Embed commitment to covering carers' expenses in the advertisement template for all positions advertised in the School
5.1.2	Develop and roll out revised job descriptions for all academic positions, seeking advice from Equate Scotland on wording in job templates for R&T jobs, monitor impact on applicant statistics.
5.1.3	Develop a list of networks, including on social media, for targeting female applicants; include in paperwork circulated to panel chairs with recruitment checklist.

4. RESEARCH SPECIALISTS:

The School employs some highly specialised staff on research-only contracts who are neither PDRA nor Research Fellow. Instead, they provide specialist expertise often on complex experiments and systems.

Men predominate this group, however, as at 2016/17, there are only 3 such staff.

RESEARCH SPECIALIST	F	M	%F
2011/12	0	8	**0.0%**
2012/13	1	6	**14.3%**
2013/14	0	6	**0.0%**
2014/15	0	5	**0.0%**
2015/16	0	4	**0.0%**
2016/17	0	3	**0.0%**

Table 4.25 Research Specialists by Gender 2011/12 – 2016/17

RESEARCH SPECIALIST	GRADE 6		GRADE 7		GRADE 8	
	F	M	F	M	F	M
2011/12	0	1	0	5	0	2
2012/13	1	0	0	4	0	2
2013/14	0	0	0	4	0	2
2014/15	0	0	0	4	0	1
2015/16	0	0	0	3	0	1
2016/17	0	0	0	2	0	1

Table 4.26 Research Specialists by Grade and Gender 2011/12 – 2016/17

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

One of the School's senior Technicians studied part-time for a PhD whilst working as an early career Technician at the University. He has expanded his role via several highly specialised projects and managerial responsibilities and is co-author on research papers.

His contributions to the research and management of the Kelvin Nanocharacterisation Centre were recently recognised via the prestigious Royal Microscopical Society's Vice-President's Medal (See S.5.6(ii)).

(iii) 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 (RT & TEACHING)	OPEN ENDED			OPEN ENDED W-FED			FIXED-TERM			TOTAL		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	5	32	**13.5%**	1	0	**100.0%**	0	3	**0.0%**	6	35	**14.6%**
2012/13	6	34	**15.0%**	1	0	**100.0%**	0	3	**0.0%**	7	37	**15.9%**
2013/14	7	33	**17.5%**	1	0	**100.0%**	0	3	**0.0%**	8	36	**18.2%**
2014/15	7	34	**17.1%**	1	0	**100.0%**	0	4	**0.0%**	8	38	**17.4%**
2015/16	7	34	**17.1%**	1	2	**33.3%**	0	3	**0.0%**	8	39	**17.0%**
2016/17	7	34	**17.1%**	1	2	**33.3%**	0	5	**0.0%**	8	41	**16.3%**

Table 4.27 All Academic Staff by Contract Type and Gender 2011/12 -2016/17

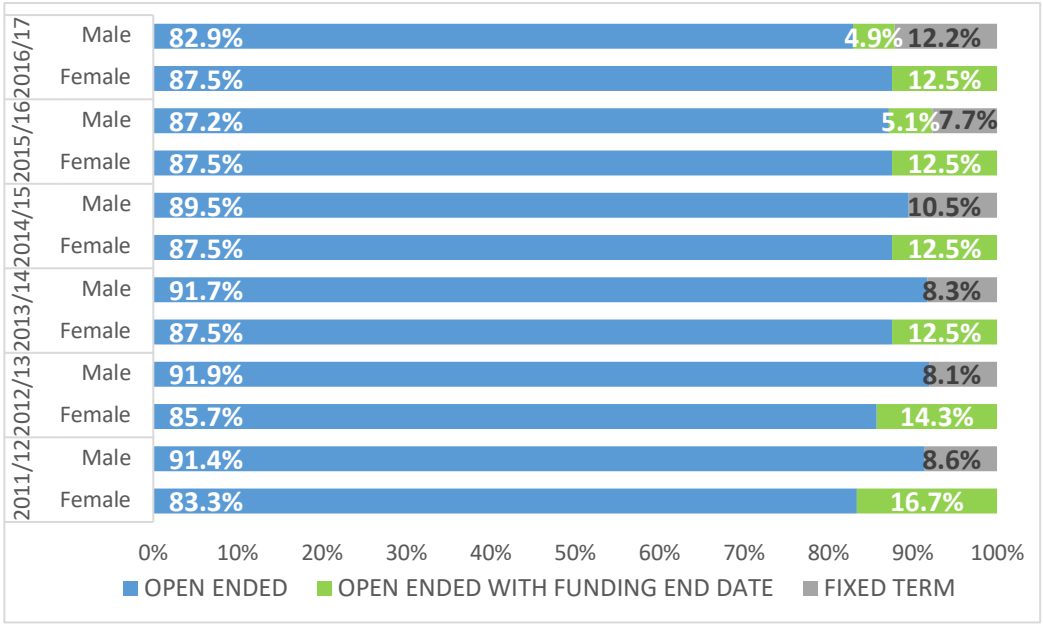


Figure 4.9 Contract Type distributed across gender for all Academic Staff 2011/12 – 2016/17

ALL RE-SEARCH	OPEN ENDED			OPEN ENDED W-FED			FIXED-TERM			TOTAL		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	0	4	**0.0%**	11	47	**19.0%**	2	11	**15.4%**	13	62	**17.3%**
2012/13	0	3	**0.0%**	8	43	**15.7%**	2	15	**11.8%**	10	61	**14.1%**
2013/14	0	3	**0.0%**	8	44	**15.4%**	4	17	**19.0%**	12	64	**15.8%**
2014/15	0	2	**0.0%**	9	54	**14.3%**	3	22	**12.0%**	12	78	**13.3%**
2015/16	0	3	**0.0%**	8	49	**14.0%**	4	22	**15.4%**	12	74	**14.0%**
2016/17	0	2	**0.0%**	8	53	**13.1%**	1	20	**4.8%**	9	75	**10.7%**

Table 4.28 All Research Staff by Contract Type and Gender 2011/12 -2016/17

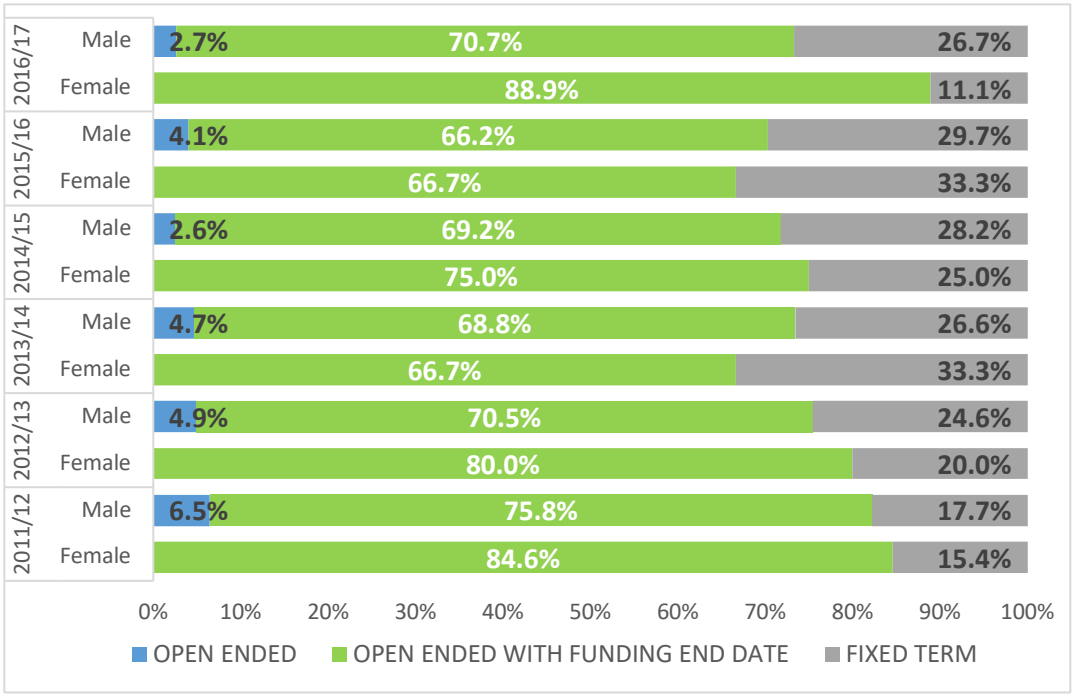


Figure 4.10 Contract Type distributed across gender for all Research Staff 2011/12 – 2016/17

Most Research-only staff are employed on projects of fixed duration. The University uses 'Open Ended with Funding End Date' (Open Ended w/FED) contracts where possible, which offer more security than rolling (e.g. annual) fixed-term contracts. Two Research-only Males have been employed on an open-ended basis since 2011/12.

Data disaggregated by Grade, below, reinforce this picture.

OPEN ENDED	GRADE 7			GRADE 8			GRADE 9			READER			PROFESSOR		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	0	1	**0.0%**	2	11	**15.4%**	0	5	**0.0%**	1	6	**14.3%**	2	13	**13.3%**
2012/13	0	1	**0.0%**	3	12	**20.0%**	0	5	**0.0%**	1	7	**12.5%**	2	12	**14.3%**
2013/14	0	1	**0.0%**	3	8	**27.3%**	0	5	**0.0%**	2	9	**18.2%**	2	13	**13.3%**
2014/15	0	1	**0.0%**	3	7	**30.0%**	0	5	**0.0%**	1	8	**11.1%**	3	15	**16.7%**
2015/16	0	1	**0.0%**	3	8	**27.3%**	0	5	**0.0%**	1	8	**11.1%**	3	15	**16.7%**
2016/17	0	1	**0.0%**	2	6	**25.0%**	1	5	**16.7%**	1	7	**12.5%**	3	17	**15.0%**

Table 4.29 All Academic and Research Staff on Open Ended Contracts by Gender 2011/12 -2016/17

OPEN ENDED w/FED	GRADE 6			GRADE 7			GRADE 8			GRADE 9			PROFESSOR		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	4	6	**40.0%**	7	26	**21.2%**	0	9	**0.0%**	0	6	**0.0%**	1	0	**100%**
2012/13	3	5	**37.5%**	5	22	**18.5%**	0	10	**0.0%**	0	6	**0.0%**	1	0	**100%**
2013/14	2	7	**22.2%**	6	21	**22.2%**	0	10	**0.0%**	0	6	**0.0%**	1	0	**100%**
2014/15	1	6	**14.3%**	6	26	**18.8%**	2	17	**10.5%**	0	5	**0.0%**	1	0	**100%**
2015/16	1	7	**12.5%**	5	23	**17.9%**	2	14	**12.5%**	0	7	**0.0%**	1	0	**100%**
2016/17	0	3	**0.0%**	5	27	**15.6%**	3	18	**14.3%**	0	7	**0.0%**	1	0	**100%**

Table 4.30 All Academic and Research Staff on Open Ended w/FED Contracts by Gender 2011/12 - 2016/17

FIXED TERM	GRADE 6			GRADE 7			GRADE 8			GRADE 9			PROFESSOR		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
2011/12	2	3	**40.0%**	0	7	**0.0%**	0	2	**0.0%**	0	0	**0.0%**	0	2	**0.0%**
2012/13	2	6	**25.0%**	0	6	**0.0%**	0	5	**0.0%**	0	0	**0.0%**	0	1	**0.0%**
2013/14	3	5	**37.5%**	1	8	**11.1%**	0	6	**0.0%**	0	0	**0.0%**	0	1	**0.0%**
2014/15	0	9	**0.0%**	3	9	**25.0%**	0	6	**0.0%**	0	1	**0.0%**	0	1	**0.0%**
2015/16	4	9	**30.8%**	0	8	**0.0%**	0	7	**0.0%**	0	0	**0.0%**	0	1	**0.0%**
2016/17	1	9	**10.0%**	0	5	**0.0%**	0	10	**0.0%**	0	0	**0.0%**	0	1	**0.0%**

Table 4.31 All Academic and Research Staff on Fixed-Term Contracts by Gender 2011/12 -2016/17

Data above refer to mainly postdoctoral staff on Open Ended w-FED and Fixed-Term contracts across Grades 6/7.

Two Professors hold non-permanent contracts. Both (1M: 1F) work part-time via a flexible, mutual, arrangement.

Staff and their line manager/PI are notified 3 months before the end of their fixed-term contract and usually meet to discuss next steps. Staff with at least 12 months' service can join the Job Seekers Register (JSR). With each new vacancy, the register is searched for potential eligible staff who are invited to apply pre-advert. Where essential criteria are met, they are guaranteed an interview. One postdoc(Male) was successfully redeployed recently to a position in Veterinary Medicine via JSR.

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

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

Only 6 staff left over the last 5 years (all Male; Full-Time):

- 2 Professors retired; one Grade 9 colleague sadly died.
- 1 Professor took up a Directorship elsewhere and remains affiliated with the School.
- 2 Grade 8 staff took up promoted academic appointments elsewhere.

Most leavers are Research-only staff. Across the last 5 years, 23%,31%,38%,20%, and 18% of Research-only leavers were female.

RESEARCH – ONLY STAFF																				
	2012/13				2013/14				2014/15*				2015/16				2016/17			
	F		M		F		M		F		M		F		M		F		M	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
GRADE 6	2	0	6	1	3	0	6	0	2	1	3	1	1	1	11	1	2	2	11	1
GRADE 7	3	0	7	1	1	0	1	1	2	0	1	0	4	0	7	0	0	0	5	0
GRADE 8	0	0	2	0	0	0	0	1	0	0	2	0	0	0	5	0	0	0	1	0
TOTAL	**5**		**17**		**4**		**9**		**5**		**8***		**6**		**24**		**4**		**18**	

Table 4.32 Research Only Leavers by Grade, Gender and FTE Status 2012/13 – 2016/17 *N.B. 1 GRADE 9 FT Male left in 2014/15 – not sufficient numbers to include additional GRADE 9 row in table

MAIN REASON FOR LEAVING	2012/13		2013/14		2014/15		2015/16		2016/17	
	F	M	F	M	F	M	F	M	F	M
RESIGNATION	5	4	1	3	2	2	4	10	0	6
END OF POST	0	13	3	6	3	6	2	14	4	12
TOTAL	5	17	4	9	5	8	6	24	4	18
% RESIGN BY GENDER	**100%**	**24%**	**25%**	**33%**	**40%**	**25%**	**67%**	**42%**	**0%**	**33%**
% RESIGN BY OVERALL LEAVERS	**41%**		**31%**		**33%**		**47%**		**27%**	

Table 4.33 Research Only Leavers by Gender and Reason for Leaving 2012/13 – 2016/17

Information on leavers is collected in-house by the school secretary, and indicates research-only staff leave projects early to pursue opportunities in other projects or sectors. However, their reasons are not systematically recorded. We will develop a better approach **(Action 4.3).**

4.4	Develop local mechanism to collect reason for Research-only staff resigning from posts early i.e. pre-project completion.

[1999 words]

5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

Recommended word count: 7000 words

Note, we examine whether male/female or other differences in responses are significant using a standard statistical test (defined as $p < 0.05$ using a χ^2 test against the null hypothesis of no difference). Unless indicated, differences are not significant.

5.1. Key career transition points: academic 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.

R&T staff

Overview:

- Combining all R&T posts, the numbers and percentages are (F/M/Tot/%)

  Application: 42/364/406/ 10.3%F

  Shortlisted: 7/46/54/ 12.8%F

  Appointed: 2/11/13/ 15.4%F

- Averaged over 6 years, the female fraction at each stage stays constant (but fluctuates between years and posts).

R&T data is grouped by grade(s) at which the post was advertised (Tables 5.1-5.3). The Professorial appointment (Figure 5.3) was a targeted, strategic hire. We do not longlist.

Advertised	APPLICANTS				SHORTLISTED				APPOINTED			
GRADE 8	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	10	136	146	**7%**	1	8	9	**11%**	1	2	3	**33%**
2012/13	1	23	24	**4%**	0	4	4	**0%**	0	1	1	**0%**
2013/14	-	-	-	-	-	-	-	-	-	-	-	-
2014/15	2	2	4	**50%**	1	1	2	**50%**	0	1	1	**0%**
2015/16	7	40	47	**15%**	2	10	12	**17%**	0	2	2	**0%**
2016/17	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**20**	**201**	**221**	**9%**	**4**	**23**	**27**	**15%**	**1**	**6**	**7**	**14%**

Table 5.1 Numbers and percentages of applicants, shortlisted and appointed candidates for R&T positions advertised at Grade 8.

Advertised	APPLICANTS				SHORTLISTED				APPOINTED			
GRADE 8/9	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	0	12	12	**0%**	0	5	5	**0%**	0	1	1	**0%**
2012/13	10	69	79	**13%**	1	10	11	**9%**	1	1	2	**50%**
2013/14	4	21	25	**16%**	1	3	4	**25%**	0	1	1	**0%**
2014/15	-	-	-	-	-	-	-	-	-	-	-	-
2015/16	8	60	68	**12%**	1	5	6	**17%**	0	1	1	**0%**
2016/17	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**22**	**162**	**184**	**12%**	**3**	**23**	**26**	**12%**	**1**	**4**	**5**	**20%**

Table 5.2 Numbers and female percentages of applicants, shortlisted and appointed candidates for R&T positions advertised at Grade 8/9.

Advertised	APPLICANTS				SHORTLISTED				APPOINTED			
Professor	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	-	-	-	-	-	-	-	-	-	-	-	-
2012/13	0	1	1	**0%**	0	1	1	**0%**	0	1	1	**0%**
2013/14	-	-	-	-	-	-	-	-	-	-	-	-
2014/15	-	-	-	-	-	-	-	-	-	-	-	-
2015/16	-	-	-	-	-	-	-	-	-	-	-	-
2016/17	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**0**	**1**	**1**	**0%**	**0**	**1**	**1**	**0%**	**0**	**1**	**1**	**0%**

Table 5.3 Numbers and female percentages of applicants, shortlisted and appointed candidates for R&T positions advertised at Professorial level.

One post advertised at Grade 8/9 was appointed at 9. Aggregated data for Grade 8 *appointments* are in Table 5.4.

Appointed	APPLICANTS				SHORTLISTED				APPOINTED			
GRADE 8	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	10	136	146	**7%**	1	8	9	**11%**	1	2	3	**33%**
2012/13	11	92	103	**11%**	1	14	15	**7%**	1	2	3	**33%**
2013/14	4	21	25	**16%**	1	3	4	**25%**	0	1	1	**0%**
2014/15	2	2	4	**50%**	1	1	2	**50%**	0	1	1	**0%**
2015/16	15	100	115	**13%**	3	15	18	**17%**	0	3	3	**0%**
2016/17	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**42**	**351**	**393**	**11%**	**7**	**41**	**48**	**15%**	**2**	**9**	**11**	**18%**

Table 5.4 Numbers and female percentages of applicants, shortlisted and appointed candidates for R&T positions *appointed* at Grade 8. Therefore, this does not include the numbers relevant to the single appointment in 2011/12 in Table 5.2, which was made at Grade 9.

Teaching-only staff

Since 2011/12 we appointed one (Grade 6) post. Of 6 female/16 male applicants (27%F), 4 men were shortlisted.

Research-only staff

Overview:

- Combining all research-only posts we have (F/M/Tot/%);

  Application: 109/513/622/ 17.5%F

  Shortlist: 40/175/215/ 18.8%F

  Appointed: 15/60/75 20.0%F
- The success rate for women (15 appointed, 109 applying = 13.8%) is the same as for men (11.7%).
- Posts advertised at Grade 7 attracted a significantly lower female applicant percentage than those at Grade 6.

Research-only data is grouped by the grade(s) at which the post was advertised (Tables 5.5-5.9).

Advertised	APPLICANTS				SHORTLISTED				APPOINTED			
GRADE 6	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	2	9	11	**18%**	2	4	6	**33%**	2	2	4	**50%**
2012/13	3	25	28	**11%**	2	8	10	**20%**	0	2	2	**0%**
2013/14	18	42	60	**30%**	9	16	25	**36%**	3	7	10	**30%**
2014/15	0	6	6	**0%**	0	3	3	**0%**	0	1	1	**0%**
2015/16	18	38	56	**32%**	6	10	16	**38%**	4	5	9	**44%**
2016/17	3	11	14	**21%**	0	6	6	**0%**	0	4	4	**0%**
TOTAL	**44**	**131**	**175**	**25%**	**19**	**47**	**66**	**29%**	**9**	**21**	**30**	**30%**

Table 5.5 Numbers and female percentages of applicants, shortlisted and appointed candidates for research-only positions advertised at Grade 6.

Advertised	APPLICANTS				SHORTLISTED				APPOINTED G6				APPOINTED G7			
GRADE 6/7	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	1	5	6	**17%**	1	2	3	**33%**	0	1	1	**0%**	0	0	0	**0%**
2012/13	0	12	12	**0%**	0	6	6	**0%**	0	0	0	**0%**	0	5	5	**0%**
2013/14	8	35	43	**19%**	2	10	12	**17%**	0	0	0	**0%**	0	4	4	**0%**
2014/15	4	24	28	**14%**	1	7	8	**13%**	0	2	2	**0%**	0	2	2	**0%**
2015/16	3	12	15	**20%**	1	4	5	**20%**	0	1	1	**0%**	0	1	1	**0%**
2016/17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**16**	**88**	**104**	**15%**	**5**	**29**	**34**	**15%**	**0**	**4**	**4**	**0%**	**0**	**8**	**8**	**0%**

Table 5.6 Numbers and female percentages of applicants, shortlisted and appointed candidates for research-only positions advertised at Grade 6/7.

Advertised	APPLICANTS				SHORTLISTED				APPOINTED			
GRADE 7	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	8	36	44	**18%**	3	9	12	**25%**	2	3	5	**40%**
2012/13	0	1	1	**0%**	0	1	1	**0%**	0	1	1	**0%**
2013/14	13	46	59	**22%**	4	17	21	**19%**	2	7	9	**22%**
2014/15	3	48	51	**6%**	2	19	21	**10%**	1	4	5	**20%**
2015/16	6	25	31	**19%**	2	8	10	**20%**	0	2	2	**0%**
2016/17	14	69	83	**17%**	4	16	20	**20%**	0	8	8	**0%**
TOTAL	**44**	**225**	**269**	**16%**	**15**	**70**	**85**	**18%**	**5**	**25**	**30**	**17%**

Table 5.7 Numbers and female percentages of applicants, shortlisted and appointed candidates for research-only positions advertised at Grade 7.

Advertised	APPLICANTS				SHORTLISTED				APPOINTED (G8)			
GRADE 7/8	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	2	7	9	**22%**	0	4	4	**0%**	0	1	1	**0%**
2012/13	-	-	-	-	-	-	-	-	-	-	-	-
2013/14	-	-	-	-	-	-	-	-	-	-	-	-
2014/15	-	-	-	-	-	-	-	-	-	-	-	-
2015/16	-	-	-	-	-	-	-	-	-	-	-	-
2016/17	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**2**	**7**	**9**	**22%**	**0**	**4**	**4**	**0%**	**0**	**1**	**1**	**0%**

Table 5.8 Numbers and female percentages of applicants, shortlisted and appointed candidates for research-only positions advertised at Grade 7/8. The appointment was at Grade 8.

Advertised	APPLICANTS				SHORTLISTED				APPOINTED			
GRADE 8	F	M	Total	F%	F	M	Total	F%	F	M	Total	F%
2011/12	2	24	26	**8%**	0	10	10	**0%**	0	3	3	**0%**
2012/13	0	20	20	**0%**	0	8	8	**0%**	0	3	3	**0%**
2013/14	0	1	1	**0%**	0	1	1	**0%**	0	1	1	**0%**
2014/15	0	11	11	**0%**	0	4	4	**0%**	0	2	2	**0%**
2015/16	1	6	7	**14%**	1	2	3	**33%**	1	0	1	**0%**
2016/17	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**3**	**62**	**65**	**5%**	**1**	**25**	**26**	**4%**	**1**	**9**	**10**	**0%**

Table 5.9 Numbers and female percentages of applicants, shortlisted and appointed candidates for research-only positions advertised at Grade 8.

Analysis

- The female applicant fraction (10.3%) for R&T and TLS posts is significantly lower than the UK applicant pool of lecturers (18%) and research-only staff (21%)[1]
- The female applicant fraction (25%) for Grade 6 research-only posts – typically straight after PhD - is consistent with the UK pool of PhD students (22.1% female in 2016/17)[2]. The fraction decreases thereafter, suggesting that the decision to leave academia occurs during the first postdoc (found also in a larger survey of physics postdocs.[3])
- The average female fraction at application, shortlist and appointment stays constant, suggesting that our aim must be to increase the fraction applying.

Encouraging female applicants:
Augmenting the University's recruitment checklist, the School's internal checklist, managed by the School Secretary and appointment panel Chair includes:

(i) An explicit request to the Chair to address gender imbalance, e.g. via a search committee or approaching suitable applicants (we do not require a particular approach);
(ii) A form for commenting on the numbers of women applying and shortlisted, compared to the UK averages (providing an additional reminder to be pro-active).

These actions, in place since 2011, may have contributed to the statistically significant increase in female applicants overall; In 2011-2014: 13.7% of 608 applicants were female; and 17.6% of 426 in 2014-2017).

In 2017/18 we trialled substantive changes to the College-provided templates for two lectureships advertised:

(iii) Introduction of carer's expenses (first in the College to do this). The advertisement contained: "*We strongly endorse the principles of Athena SWAN, including a supportive and flexible working environment…..Interviewees will be eligible for carer expenses, which will be covered by the School*."

(iv) Rewording of the College's- generic job description to emphasise measurable, evidenced achievement rather than the applicant's perception of their excellence, since "academics who wish to diversify their fields might want to downplay talk of innate intellectual giftedness and instead highlight the importance of sustained effort for top-level success" (physics being particularly prone to

[1] Source: IOP Data brief "Academic Staff in UK Physics Departments", IOP, 2017
[2] Source: IOP HESA Benchmarking Data, 2018.
[3] Source: IOP and Royals Society of Chemistry report "Mapping the Future: Physics and Chemistry Postdoctoral Researchers' Experiences and Career Intentions", IOP 2012.

this)[4]. Evidence shows that wording of job adverts can sustain gender imbalance.[5]

In one case, the resulting shortlist of 6 excellent individuals included 50/50 male/female candidates. The School will now offer carer's expenses for *all* positions advertised.

Actions to increase the recruitment of women	
5.1.1	Verify that carer's expenses appear in all job adverts from the School
5.1.2	Develop and roll out improved template job descriptions for all roles and grades advertised, seeking advice from Equate Scotland on wording
5.1.3	Develop a list of networks, including social media, for targeting potential female applicants and circulate to appointment panel chairs along with the University's recruitment checklist

(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.

University: All new staff are invited to a University induction, bookable online.

School: Every October our Welcome Event for new staff and postgraduates (introduced as a Juno Champion action) gives an introduction to our history, culture, key people, activities, committees and structures. Slides are circulated to the School for those unable to attend. It is followed by a social event to meet new colleagues.

Group: Most RGs provide a folder of key information, but with significant variation across RGs. Some RGs are unaware of University induction guidelines.

Monitoring and Feedback: Comments from a short questionnaire inform updates to content of the welcome event. A focus-group of recent hires revealed the inconsistent practice described above. In the 2017 School staff survey only 53% of academics hired since 2012 (40% of women, 55% of men) agreed that induction overall met their needs.

Actions to improve induction for academic staff	
5.1.4	Develop and roll out a set of standardised induction packs containing research-group-specific information
5.1.5	Standardise the use of the University induction checklist for all staff, with a 6-month check-in with the line manager, to be verified by HoSA
5.1.6	Highlight these changes, and explain the rationale, at the Research and Teaching Staff Forum, and the School Welcome Event.

[4] Leslie, S.-J., Cimpian, A., Meyer, M. & Freeland, E., 2015, Science 347, p262 "Expectations of brilliance underlie gender distributions across academic disciplines"
[5] Gaucher, D., Friesen, J. & Kay, A.C., 2011, Journal of Personality and Social Psychology 101, p109 "Evidence That Gendered Wording in Job Advertisements Exists and Sustains Gender Inequality"

(iii) Promotion

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

Overview of all promotions:

- 100% of female R&T and TLS applicants are successful. Since 2011/12, 7.7% (2/26) of applicants were women, with 9.5% (2/21) of successful applications.
- 100% of female research-only applicants are successful. Since 2011/12, on average 33% (5/15) of applicants for Grade 7, and 9.5% (2/21) of applicants for Grade 8 were women.
- Women and men are equally likely to apply for promotion.

Research and Teaching staff

All applicants worked full time. A blank denotes no applications.

RESEARCH & TEACHING		GRADE 8			GRADE 9			READER			PROF		
		F	M	F%	F	M	F%	F	M	F%	F	M	F%
2011/12	Applications												
	Promotions												
	Success Rate												
2012/13	Applications												
	Promotions												
	Success Rate												
2013/14	Applications												
	Promotions												
	Success Rate												
2014/15	Applications												
	Promotions												
	Success Rate												
2015/16	Applications												
	Promotions												
	Success Rate												
2016/17	Applications												
	Promotions												
	Success Rate												
TOTALS	Applications	0	1	0%	1	9	10%	0	3	0%	1	11	8%
	Promotions	0	1	0%	1	8	11%	0	3	0%	1	7	13%

Figure 5.10 Numbers and female percentages of research and teaching candidates applying for and achieving promotion, separated by gender and the grade for which the application was made.

TLS staff

All applicants worked full time. Our one female TLS staff member was successfully promoted to Grade 9. We had two successful and two unsuccessful applications by men. There were no promotion attempts in 2011/12 or 2012/13, or at other grades.

TEACHING, LEARNING & SCHOLARSHIP		GRADE 7 F	M	F%	GRADE 9 F	M	F%
2013/14	Applications						
	Promotions						
	Success Rate						
2014/15	Applications						
	Promotions						
	Success Rate						
2015/16	Applications						
	Promotions						
	Success Rate						
2016/17	Applications						
	Promotions						
	Success Rate						
Totals	**Applications**		**1**		**1**	**3**	**25%**
	Promotions		**0**		**1**	**2**	**33%**

Table 5.11 Numbers and female percentages of teaching-only candidates applying for and achieving promotion, separated by gender and the grade for which the application was made.

Research-only staff

Two (F) applicants worked part time. One applied for Grade 8 in 2013/14 and one for Grade 7 in 2014/15; both were successful. The 33% of female applicants for Grade 7 are from a pool of 24% women at Grade 6, and the 9.5% of female applicants for Grade 8 from 14.9% women at Grade 7.

RESEARCH-ONLY		GRADE 7 F	M	F %	GRADE 8 F	M	F %	TOTALS PER YEAR F	M	F%
2011/12	Applications									
	Promotions									
	Success Rate									
2012/13	Applications									
	Promotions									
	Success Rate									
2013/14*	Applications									
	Promotions									
	Success Rate									
2014/15*	Applications									
	Promotions									
	Success Rate									
2015/16	Applications									
	Promotions									
	Success Rate									
2016/17	Applications									
	Promotions									
	Success Rate									
TOTALS	**Applications**	**5**	**10**	**33%**	**2**	**19**	**10%**	**7**	**29**	**19%**
	Promotions	**5**	**10**	**33%**	**2**	**17**	**11%**	**7**	**27**	**21%**

Table 5.12 Numbers and female percentages of research-only candidates applying for and achieving promotion, separated by gender and the grade for which the application was made. The * indicates years in which a part-time worker was promoted.

The promotion process:

The School has well-established mechanisms for encouraging and supporting applicants, which contribute to our success:

Encouraging applications: The promotion round, and our annual promotions workshop, are announced to all R&T, TLS and research-only staff by the HoS. At the workshop recently successful applicants share their experiences, along with HoS and HR presentations. RGLs and Professors are explicitly asked to encourage staff towards promotion, and the HoS's P&DR memo to all staff (5.3 (ii)) highlights that the annual P&DR should address career planning, including steps on the route to promotion.

Supporting applicants: All staff are first invited to submit their CV to the Head of School for initial advice on readiness. Each draft case is discussed at the RSC, and a professorial mentor assigned, either to help prepare the promotion case or plan how this might be achieved in the coming year. The RSC role is advisory only, and all wishing to apply for promotion are fully supported.

Feedback: The views of the RSC are fed back to the applicant in a meeting with the Head of School, mentor and RGL. This is essential for the morale of the individual concerned, but also for a collegial working environment. After an unsuccessful application a meeting is also arranged to discuss (College/University) feedback and next steps.

In our School survey, 100% of promotion applicants reported being well-supported through the process. However, we can still improve the stages *prior to* the decision to apply. 83%/71% of female/male R&T and TLS staff, and 67%/81% F/M research-only staff agreed that they had received advice, mentoring and encouragement towards promotion (Table 5.13)[6].

I have received advice, mentoring or encouragement for promotion	F	M	U	Total	F%
Agree					
R&T, TLS	5	27	1	33	**15%**
R-only	4	26	1	31	**13%**
Neither Agree nor Disagree					
R&T, TLS	0	6	3	9	**0%**
R-only	1	2	0	3	**33%**
Disagree					
R&T, TLS	1	5	1	7	**14%**
R-only	1	4	2	7	**14%**
Percentage agreeing					
R&T, TLS	**83%**	**71%**	**20%**	**67%**	
R-only	**67%**	**81%**	**33%**	**76%**	

Table 5.13. Satisfaction with support for promotion support among academic staff. 'U' indicates gender undisclosed. F% shows the percentage calculated *including* 'U'.

[6] Note, in data derived from the School survey, people were offered the option not to disclose their gender (U) or to answer 'prefer not to say'. No answers were recorded under 'prefer not to say'.

Actions to enhance support for academic staff promotion	
5.1.7	Refocus the content of the promotions workshop towards advice on building the evidence base for a promotions case
5.1.8	Identify colleagues willing to give informal early advice on promotions intentions and applications, at or after the workshop.
5.1.9	Update P&DR memo, highlighting the opportunity to discuss promotion plans. Include this on P&DR Checklist (See AP 5.3.5)

(iv) 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.

RAE 2008	Eligible	Submitted	Not Subm.	% submitted
Female	[redacted]			
Male				
Total				
F%	9.1%	9.3%	0.0%	

REF2014	Eligible	Submitted	Not Subm.	% submitted
Female	[redacted]			
Male				
Total				
F%	15.6%	15.6%	0.0%	

Table 5.14 Numbers and percentages of women and men eligible for and submitted to RAE2008 and REF2014.

[redacted]

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.

School-Level: The school-wide welcome event, described in 5.1 (i) is advertised and open to *all* new staff.

Individual: Professional and Support Staff (P&SS) usually work between RGs, with a line-manager on the MPA or technical staff who oversees induction.

MPA: An induction and training plan is developed by the HoSA, with meetings at least monthly between the HoSA and the new employee to assess progress.

Technical: Induction is carried out by the overall technical staff line-manager and then with any RG line-manager. Effectiveness is reviewed every two months and at the end of the 6-month probation.

> I don't think there was a "welcome event" when I started here. Looking at the welcome event slides used recently, however, I feel that, if I was to start now, the information provided would be very beneficial to me for understanding my place in the School and who my colleagues, other School members and the stakeholders are.
>
> MPA member, 10 years' standing

Overall this works well: 77% (10/13) of P&SS recruited since 2012 agreed that induction met their needs.

(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.

Progression (regrading) requires a P&SS member to demonstrate that their role has expanded to incorporate significant, sustained work above their current grade. Only one application since 2011/2012 was unsuccessful. On average, women made 82% (9/11) of applications and obtained 80% (8/10) of successful regradings (Table 5.15).

PROFESSIONAL AND SUPPORT STAFF		GRADE 5			GRADE 6			GRADE 7			TOTALS		
		F	M	F%	F	M	F%	F	M	F%	F	M	F%
2011/12	Applications												
	Promotions												
	Success Rate												
2012/13	Applications												
	Promotions												
	Success Rate												
2013/14	Applications												
	Promotions												
	Success Rate												
2014/15	Applications												
	Promotions												
	Success Rate												
2015/16	Applications												
	Promotions												
	Success Rate												
2016/17	Applications												
	Promotions												
	Success Rate												
TOTALS	**Applications**	**4**	**1**	**80%**	**4**	**0**	**100%**	**1**	**1**	**50%**	**9**	**2**	**82%**
	Promotions	**3**	**1**	**75%**	**4**	**0**	**100%**	**1**	**1**	**50%**	**8**	**2**	**80%**

Table 5.15 Applications and successes/success rates for promotion and regrading. Blank spaces indicate zeros

Men are underrepresented in applications, possibly as they are already employed at reasonably senior levels. Male P&SS are mostly in technical roles, and are highly skilled and experienced (technicians at Grade 6 and above are in higher proportions than the CoSE (Tables 5.16, 5.17)). All Grade 8s in the College are in our School, and 3 Technical staff members progressed to Grade 8 outside the reporting period (2M, 1F in 2017/18).

School	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 8	% at 6-8
2011/12	3.8%	11.5%	65.4%	19.2%	0.0%	84.6%
2012/13	4.0%	8.0%	68.0%	20.0%	0.0%	88.0%
2013/14	7.7%	11.5%	61.5%	19.2%	0.0%	80.7%
2014/15	7.1%	21.4%	57.1%	14.3%	0.0%	71.4%
2015/16	3.7%	22.2%	59.3%	14.8%	0.0%	74.1%
2016/17	3.7%	11.1%	51.9%	22.2%	11.1%	85.2%

Table 5.16. Technical staff by Grade in the School of Physics and Astronomy 2011/12 – 2016/17. Rounding errors mean that percentages do not always add to 100%

CoSE	GRADE 1-3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	% at 6-8
2011/12	1.0%	6.9%	12.9%	67.3%	11.9%	79.2%
2012/13	2.0%	5.7%	15.2%	65.7%	11.4%	77.1%
2013/14	4.4%	7.9%	17.5%	59.6%	10.5%	70.1%
2014/15	6.2%	7.9%	14.9%	57.9%	13.2%	71.1%
2015/16	8.7%	5.6%	16.7%	56.3%	12.7%	69.0%
2016/17	7.8%	6.3%	18.8%	55.5%	11.7%	67.2%

Table 5.17. Technical staff by Grade in the rest of the College of Science and Engineering, *excluding School of Physics and Astronomy*, 2011/12 – 2016/17. Rounding errors mean that percentages do not always add to 100%

We successfully supported 15/18 staff (83%) applications for one-off "Reward and Recognition" payments or increments since 2013, significantly higher than the rest of the College over the same period (36/61 = 59%).

We successfully nominated all P&SS in the Institute for Gravitational Research for R&R payments in 2017, recognising their important contribution to the discovery of gravitational waves, announced on 11 February 2016.

Regrading opportunities are advertised annually by the HoS by email, and followed up individually with the line manager or RGL.

- MPA staff discuss regrading at P&DR, and those wishing to proceed meet with HoSA to understand intentions and get advice on their case. The HoSA provides practical assistance with writing the case, and colleagues who have been through the process also provide advice.
- Technical staff discuss regrading at P&DR, and throughout the year, especially if working on a special project (when the line-management structure involving RGLs is very beneficial). Staff are encouraged to keep an up-to-date work diary of information relevant to regrading.

Only 43% of men, agreed that they had been encouraged and advised towards promotion (Tables 5.18, 5.19), while 87% of women and 67% of men reported knowing about University processes and criteria.

I have received advice, mentoring or encouragement for regrading	F	M	U	Total	F%
Agree	6	9	0	15	40%
Neither Agree nor Disagree	1	7	0	8	13%
Disagree	1	5	1	7	14%
Percentage agreeing	**75%**	**43%**	**0%**	**50%**	

Table 5.18. Responses (P&SS) regarding encouragement towards promotion and regrading showing numbers, percentages of women in each category, and percentage of each category agreeing. U = gender undisclosed. Source: 2017 Staff Survey

I am aware of the University's regrading processes and criteria	F	M	U	Total	F%
Agree	7	14	1	22	**32%**
Neither Agree nor Disagree	1	4	0	5	**20%**
Disagree	0	3	0	7	**0%**
Percentage agreeing	**88%**	**67%**	**100%**	**65%**	

Table 5.19. Responses (P&SS staff) regarding understanding of promotion criteria and processes. showing numbers, percentages of women in each category, and percentage of each category agreeing. U = gender undisclosed. Source: 2017 Staff Survey

Actions to enhance support for P&SS staff regrading	
5.2.1	Produce a FAQ about the regrading process for P&SS staff, and distribute with the announcement of regrading opportunities
5.2.2	Allocate reasonable career-development hours in a P&SS member's workload to spend on developing their regrading case

5.3. Career development: academic staff

(i) Training

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

Face-to-face and online training organised at University level includes;

- Compulsory online E&D training;
- Unconscious bias, and Recruitment and Selection (R&S) training, required for appointment panel members;
- A broad range of face-to-face and online courses covering personal, professional and career development, and training on new University systems;
- Research-only staff courses aligned with the University's Researcher Development programme;
- The early-career development programme (ECDP) for new lecturers (R&T and TLS), involving a personal development plan, mentoring and professional development;
- Intensive management courses for senior staff aiming for management positions.

In response to postdoc remand, we ran in-house teaching workshops in 2014-15 and 2015-16, given by staff with high student satisfaction ratings. These will evolve into an annual School Teaching and Learning workshop.

Monitoring of University-organised courses is by HR. Between 2011/12 and 2016/17, 8 female and 30 male R&T and TLS staff took 74 such courses, and 18 female and 50 male research-only staff took 137. Effectiveness is monitored by employee development. In the staff survey, a satisfaction of 77% was reported. Other non-university courses are accessed (since *38* male R&T and TLS staff reported taking courses.)

Uptake of E&D and R&S training is by the School Secretary (see 5.6 (vi). 95% of female and 92% of male academics have completed E&D training.

Training Information is obtained mostly from University communications, reinforced by School newsletters and emails (Table 5.20). The HoS's internal memo at P&DR (5.3(ii)) also reminds reviewers and reviewees to address training needs.

How do you find out about training opportunities?	F	M	U	Total	F%
P&DR	6	16	1	23	26%
School communications	6	36	6	48	13%
University communications	9	51	5	65	14%
Other	2	5	0	7	29%

Table 5.20: Sources of information about training, for all R&T, Research-only and TLS staff. More than one answer could be given. F% is the percentage of women accessing information via a particular route. U = undisclosed. (Source: 2017 P&A staff survey)

Effectiveness: Men are slightly more satisfied than women particularly with non-compulsory training. A common complaint, particularly from research-only staff, is that useful courses are very oversubscribed.

The compulsory training was useful and relevant to my role	F	M	U	Total	F%
Agree					
R&T, TLS	1	8	0	9	**11%**
R-only	2	18	3	23	**9%**
Neither Agree nor Disagree					
R&T, TLS	2	4	1	7	**29%**
R-only	1	11	0	12	**8%**
Disagree					
R&T, TLS	0	4	1	5	**0%**
R-only	0	4	0	4	**0%**
Percentage agreeing					
R&T, TLS	**33%**	**50%**	**0%**	**43%**	
R-only	**67%**	**55%**	**100%**	**59%**	

Table 5.21 The perceived utility of compulsory training for all R&T, Research-only and TLS staff . U = undisclosed (source: 2017 P&A staff survey)

The non-compulsory training was useful and relevant to my role	F	M	U	Total	F%
Agree					
R&T, TLS	1	16	1	18	**6%**
R-only	2	20	1	23	**9%**
Neither Agree nor Disagree					
R&T, TLS	1	3	0	4	**25%**
R-only	1	13	0	14	**7%**
Disagree					
R&T, TLS	1	2	0	3	**33%**
R-only	1	2	0	3	**33%**
Percentage agreeing					
R&T, TLS	**33%**	**76%**	**100%**	**72%**	
R-only	**50%**	**57%**	**100%**	**58%**	

Table 5.22 The perceived utility of non-compulsory training, for all R&T, Research-only and TLS staff (source: 2017 P&A staff survey)

Actions to improve academic staff training	
5.3.1	Develop and roll out a new school-wide annual learning and teaching workshop, and monitor its success
5.3.2	Run a special postdoc forum and questionnaire on training needs to identify what is most lacking from University provision in terms of topic or availability
5.3.3	Pilot in-house training based on outcome of 5.3.2

(ii) Appraisal/development review

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

The annual University Performance and Development Review has a face-to-face discussion around an online form previously completed by the reviewee. It addresses achievements, performance against previous years' objectives and development. Though decoupled from promotion, it is aligned with promotion domains, and gives a framework and record of achievement for working towards this.

Participation: All academic staff including postdocs participate (postdocs have a tailored form) except those on the Early-Career Development Programme (ECDP) who have a different system. Staff starting less than 6 months previously only discuss objectives. Otherwise, our completion rate is 100%. The reviewer is typically the line-manager for research-only staff, the RGL for R&T staff and the HoS for Professors. Staff can request an alternative reviewer, though few research-only staff know this (Table 5.23).

I can request a different P&DR reviewer		F	M	U	Total	F%
Yes						
	R&T, TLS	5	19	2	26	19%
	R-only	2	5	0	7	29%
No						
	R&T, TLS	0	2	0	2	0%
	R-only	1	2	0	3	33%
Don't know						
	R&T, TLS	0	15	3	18	0%
	R-only	3	18	3	24	13%
Percentage 'Yes'						
	R&T, TLS	100%	53%	40%	57%	
	R-only	33%	20%	0%	21%	

Table 5.23 Responses to the question "I can ask for a different P&DR reviewer", different academic staff categories (source: 2017 P&A Staff Survey)

Training: The HoS circulates a comprehensive memo describing the P&DR, its aims, links to the University online training and his own experience of the forms. 73% of both men and women agree this is useful, with no significant difference between staff categories. Significant changes are communicated to line managers at meetings with HR in the School.

Staff Feedback: The P&DR is most highly regarded for delivering performance feedback (by a significantly higher fraction of men than of women), managing objectives and progress (Table 5.24).

P&DR provides useful performance feedback	F	M	U	total	F%
Agree					
R&T, TLS	3	23	2	28	**11%**
R-only	3	20	3	26	**12%**
Neither					
R&T, TLS	2	8	3	13	**15%**
R-only	1	4	0	5	**20%**
Disagree					
R&T, TLS	0	1	0	1	**0%**
R-only	2	0	0	2	**100%**
Percentage agreeing					
R&T, TLS	**60%**	**72%**	**40%**	**67%**	
R-only	**50%**	**83%**	**100%**	**79%**	
P&DR helps manage objectives and progress	**F**	**M**	**U**	**total**	**F%**
Agree					
R&T, TLS	2	21	2	25	**8%**
R-only	3	19	1	23	**13%**
Neither					
R&T, TLS	3	10	0	13	**23%**
R-only	2	5	2	9	**22%**
Disagree					
R&T, TLS	0	3	0	3	**0%**
R-only	1	0	0	1	**100%**
Percentage agreeing					
R&T, TLS	**40%**	**62%**	**100%**	**61%**	
R-only	**50%**	**79%**	**33%**	**70%**	

Table 5.24 Questions with the most positive responses about the benefits of P&DR for different academic staff categories. (Source: 2017 P&A Staff Survey).

P&DR scores poorly in helping with workload management (rated positively by 36% of women, 39% of men), enabling issues of concern to be discussed (27% of women and 41% of men) and identifying training needs (36% of women and 37% of men); this will guide recommendations for how P&DR develops within the School.

Overall, staff are ambivalent about the helpfulness of the P&DR (Table 5.25).

The School provides me with a helpful P&DR	F	M	U	Total	F%
Agree					
R&T, TLS	3	16	2	21	**14%**
R-only	2	11	1	14	**14%**
Neither					
R&T, TLS	1	12	3	16	**6%**
R-only	2	10	1	13	**15%**
Disagree					
R&T, TLS	1	8	0	9	**11%**
R-only	2	4	1	7	**29%**
Percentage agreeing					
R&T, TLS	**60%**	**44%**	**40%**	**46%**	
R-only	**33%**	**44%**	**33%**	**41%**	

Table 5.25 responses to the question "The School provides me with a helpful annual P&DR", for different academic staff categories. (source: 2017 P&A Staff Survey).

Male satisfaction with P&DR fell between the 2016 University-wide staff survey (64% of 74 male respondents including P&SS) and our 2017 School staff survey (46% of 82 male

respondents (University data is not disaggregated by job profile). Between these surveys changes occurred that restricted numbers achieving the top grade. This suggests that the overall disenchantment with what could be a positive process may derive from the "single grade" outcome, University-mandated caps on fractions who may achieve top ratings, plus the difficulty of discussing development and performance in the same meeting.

Actions to improve the academic P&DR	
5.3.4	Update the HoS P&DR memo to emphasise that it is possible to request a different reviewer, and also to encourage preparation for discussions about training and career development
5.3.5	Prepare a brief P&DR checklist for reviewers and reviewees suggesting topics for discussion beyong the content of the form, addressing areas where P&DR gets a poor rating and emphasising development aspects.

(iii) Support given to academic staff for career progression

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

Training and P&DR contribute to career progression. Here we address also the ongoing practical support of an academic's research and teaching, and professional profile.

R&T, TLS staff:

- Everyone can bid to the end-of-year strategy fund and the Kelvin Infrastructure Fund for research and teaching developments;
- Staff can receive annual School funding for conference travel;
- Substantial discretionary funding is devolved to research groups and PIs (with provision made to assist those with fewer income-generating opportunities);
- SMT has a structured annual cycle of making nominations for prizes and fellowships;

Additional support for new staff:

- Staff on the Early-Career Development programme meet 2-3 times a year with a mentor from another research group. Mentors and mentees attend an obligatory training workshop;
- We ramp up the teaching/admin load over 3 years;
- A "dowry" from the School helps with equipment and conference expenses;
- Research studentships are shared, with new staff given priority;

59% of staff (66% of female staff) agree that they have been supported in career development so these practical steps are not benefitting everyone or not recognised as career development opportunities.

Research-only staff:

We work hard to support postdocs, exploring issues with our postdoctoral forum. The following are example forum outcomes:

- Restructuring of internal selection timelines to assist Fellowship applicants;
- Suggestions for changing the research-only P&DR, taken to College level, helped improve the University-level process;
- A request that postdoc mentoring of PhD students be recognised contributed to an update of the promotion application form;
- Demand for improved support of postdoc teaching led to the creation of two School workshops.

The forum Chair attends SMT 2-3 times a year and presents at the biannual staff meeting, to which all academic staff are invited. He is a member of the University postdoctoral forum. Postdocs have been represented on focus group discussions e.g. about the University staff satisfaction survey and technical support provision.

Teaching opportunities are advertised annually, and research-only staff encouraged to participate to develop their academic employability. 16% of our postdocs lecture, and many more do tutorials and lab demonstrating. Each postdoc is encouraged to be primary supervisor of an undergraduate research project (supported by a R&T or TLS staff member), giving project-management experience.

Fellowships are advertised to the School and, where relevant, internal selection processes are clearly explained. 100% (5/5) female and 88% (14/16) male applicants reported receiving sufficient support from the School in their application. The University organises training courses about fellowship applications.

Careers beyond academia are discussed at the annual SUPA careers event.

Funding opportunities advertised to research-only staff include summer-student funding, travel funding (SUPA, College and Principal's funds), outreach, equipment and the end-of-year strategy fund. Several postdocs are researcher Co-Is on major grants.

Actions to improve support for academic career progression - staff	
5.3.6	Investigate in focus groups with R&T and TLS staff what additional practical steps the school can take to support career progression

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

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

Undergraduates:
We aim to supplement support from the University Careers Service, broaden understanding of options and give a practical taste of research and teaching.

- Our "Skills Revolution" workshop for level 3 students includes a Q&A with female and male physics graduates from industry, public sector and academia;
- We organise physics-specific careers talks and CV clinics from the Careers Service;
- Our Level 4 'Physics Education and Communication' module gives experience in schools. We also interview annually for 10 undergraduate mentors for our international physics summer school (40% of mentors are female);
- We fund 10-15 summer internships for research and teaching projects (RGs fund several more). These, and external internships are advertised on an online forum.
- Internal and external PhD positions are advertised on an online forum (tens of postings per year), and we run a postgraduate research fair.

- The Glasgow Women in Physics Group, launched in 2016 by a PhD student, provides an informal space for discussions and presentations by female academics about their careers.

Postgraduates:

- The School Kelvin Travel Fund (launched 2014) promotes internationalisation for PhD students;
- The CoSE's 'SCOPE' careers conference, launched in 2016 by a (female) physics PhD student, brings PhD students, postdocs, and non-academic employers together in a 'speed-dating' format;
- The annual SUPA careers workshops showcase careers for Physics PhD graduates across Scotland;
- The College and SUPA provide substantial core and transferrable skills training.

The effectiveness of training is assessed as part of the Postgraduate Research Experience Survey (answered in the ratio 40%F/60%M). Relevant results from 2015 and 2017 are shown in Figure 5.1 and Figure 5.2

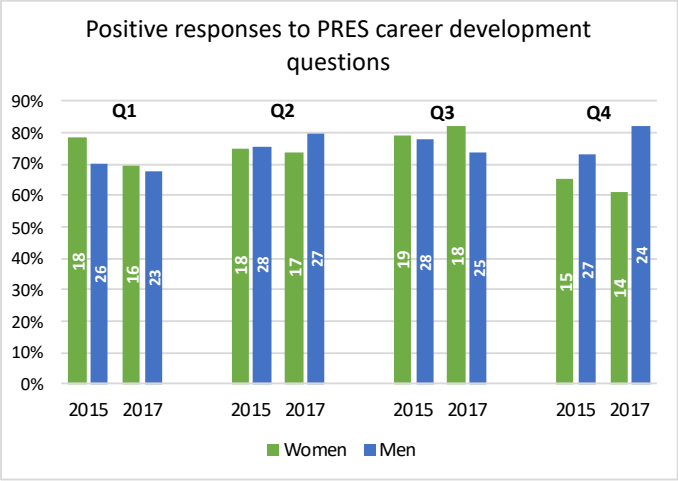


Figure 5.1 Responses of PhD students to PRES career-development questions in the 2015 and 2017, showing percentages and numbers of all responses that agreed with the statement. Not all students answered all questions. Q1 - improved ability to manage projects; Q2: improved ability to communicate information effectively; Q3: developed contacts or professional networks; Q4: increasingly managed my own professional development.

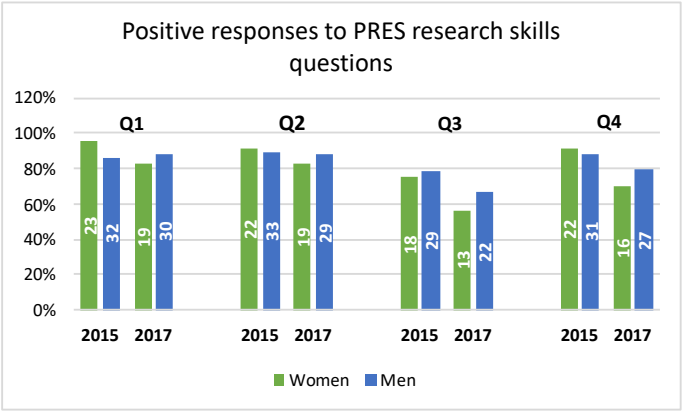


Figure 5.2 Responses of PhD students to PRES research-skills questions in the 2015 and 2017, showing percentages and numbers of all responses that agreed with the statement. Not all students answered all questions. Q1: applying appropriate research methodologies, tools and techniques; Q2-critically analysing and evaluating findings; Q3 - confidence to be creative and innovative; Q4-understanding of research integrity.

We see a need for improvement particularly in project management and professional development (Fig 5.1 Q1, Q4), and understanding of creativity and research integrity (Fig 5.2 Q3, Q4). We investigated the PGRES results with a PhD focus group, finding for example, that students do not see their own research as 'innovation', and find the existing research integrity and ethics courses of little relevance for physics.

"Though I have not stayed in academia, I have gained many skills during my PhD which have prepared me for my current job as a trainee clinical scientist with the NHS"

Graduating Female PhD student, PhD exit questionnaire, 2017.

Our PhD exit questionnaire also probes how well training prepares students for their future careers. We were first in the College to issue this. Our actions to address career preparation are co-ordinated with the P&A graduate school.

Actions to improve support for academic career progression – students at all levels	
5.3.7	Monitor gender-disaggregated applicants and awardees for undergraduate summer projects conducted in the School to check that opportunities are reaching and benefitting female and male students; where not, introduce mechanism to address this.
5.3.8	In collaboration with the School's Graduate School Committee, develop and run additional courses/workshops in core research skills and research integrity (e.g. via SUPA)
5.3.9	Provide improved opportunities for PhD students to have discussions about sustainable academic careers, introducing this at the existing 3rd year PhD conference.
5.3.10	Promote the range of career destinations of our own PhD students at PGR induction and as online case studies, using information from recent PhD graduates who agreed to be contacted in our PhD exit survey.

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

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

- Our School database of national and international funders, provided in the initial stage of all applications, lists colleagues who can provide advice as previous applicant, panellist or reviewer;
- Experienced academics provide feedback on all summary fellowship cases and full applications;
- Practice fellowship interviews are offered, involving staff (often from outside the School) with experience of the funding body;
- Our School research co-ordinator provides practical help with application rules and costings;
- Outside the School, the CoSE Research Support Team offers proposal development advice and examples of successful proposals, and the Researcher Development Team runs grant-writing workshops.

This focus on preparation contributes to our strong record of securing research grants. 38/39 male and 6/7 female R&T staff are currently grant holders as PI or Co-I on significant grants (i.e. employing an RA). Satisfaction with support offered by the School is high overall, with no significant male/female differences, though there is room for improvement (Table 5.26)

I received sufficient support in the School when submitting my grant/fellowship application	F	M	U	Total	F%
Agree					
R&T, TLS	3	25	2	30	**10%**
R-only	4	26	1	31	**13%**
Neither Agree nor Disagree					
R&T, TLS	2	5	3	10	**20%**
R-only	1	2	0	3	**33%**
Disagree					
R&T, TLS	0	0	0	0	**n/a**
R-only	1	4	2	7	**14%**
Percentage agreeing					
R&T, TLS	**60%**	**83%**	**40%**	**75%**	
R-only	**67%**	**81%**	**33%**	**76%**	

Table 5.26. Staff views on research support offered by the School. Source: School Survey 2017

Unsuccessful applications can be discussed at P&DR, and opportunities explored for approaching a different funding agency. The School's research group structure, and the discretionary funding provided (5.3 (iii)), ensures that some resources are shared between staff, enabling some continued research support.

Actions to improve support for grant applications	
5.3.11	Run a workshop internally on writing grant and fellowship applications (see also Action Point 5.3.2

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?

Formal training for MPA staff offered by the University includes mandatory, role-specific (e.g. finance software) and optional training including IT, communication, management, personal effectiveness and interpersonal skills. 9 members (8F,1M) of MPA have undertaken 23 instances of training (Table 5.27).

PROFESSIONAL SERVICES (MPA)		
INDIVIDUALS ENGAGING IN TRAINING COURSE(S)		
YEAR	FEMALE	MALE
2011/12	4	0
2012/13	0	0
2013/14	0	0
2014/15	0	0
2015/16	2	1
2016/17	2	0
TOTAL	**8**	**1**

Table 5.27: MPA staff members engaging in training courses. Excludes compulsory E&D training.

The 2-monthly MPA meeting run by the HoSA provides an informal skills-sharing opportunity where members bring experience of recent learning and development, e.g. in September 2017 one member spoke on 'The Executive PA' Pitman training course she had attended. In 2018, 3 Technical and 2 MPA staff accessed a Mental Health First Aid training course provided by the School, to support them in working with colleagues and students in a high-pressure workplace.

For Technical staff most skills and compulsory training (e.g. risk assessment, managing risk, workshop health and safety) is provided *in situ* and not centrally co-ordinated. 2 male Technical staff members undertook University courses in 2011/12.

Communication of training opportunities is at P&SS meetings and via School and University-wide communications (Table 5.28). Male staff access other information sources (e.g. networks) significantly more than females.

How do you find out about training opportunities?	F	M	U	Total	F%	M%
P&DR	3	4	0	7	**43%**	**57%**
School communications	1	3	0	4	**25%**	**75%**
University communications	7	9	0	16	**44%**	**56%**
Other	2	7	1	10	**20%**	**70%**

Table 5.28: Sources of information about training, for P&SS. More than one answer could be given. F%, M% are the percentages of women and men (of those who declared a gender) accessing information via a particular route. (Source: 2017 P&A staff survey)

Monitoring: The effectiveness and value of training is part of the ongoing dialogue between employees and Line Managers. All P&DR forms are reviewed in advance of the P&DR to assess whether training needs are appropriate, and being met. University-organised training is monitored by Employee and Organisational Development via participant evaluations.

In the 2017 staff survey, 75% (6/8) of female but only 57% (12/21) of male P&SS reported access to relevant training, meeting their career and professional development needs.

Actions to improve training for Professional and Support Staff	
5.4.1	Promote the available University postgrad supervisor training to technical staff involved in assisting in undergraduate and postgraduate labs
5.4.2	Develop enhanced guidance for P&SS reviewers on discussing and identifying training needs and the possibility of professional registration at P&DR

(ii) Appraisal/development review

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

The University P&DR is well embedded for all P&SS. Uptake is 100% for eligible P&SS (exceptions include e.g. if the employee is on maternity leave). P&DR online training is highlighted in the HoS memo to all staff (Section 5.3 (ii)); 75% (6/8) of female, 57% (12/21) of male and 100% (1/1) undisclosed P&SS report that this is helpful. Each year, College HR visit the School to provide P&DR training for Technical and MPA reviewers and reviewees.

In the 2017 School staff survey, 75% (6/8) of women but only 38% (8/21) of men agreed that the P&DR was useful overall. This female/male difference is statistically significant, and may indicate that the current P&DR is less useful to (primarily male) technical roles. Positive aspects were providing feedback on performance (100% of women, 81% of men) and helping manage objectives and progress (75% of women, 67% of men). However, only 38% of women and 42% men agreed that the P&DR included a discussion of next career steps, possibly due to the different process for progression for P&SS discussed at 5.2(ii).

Feedback is also given outside P&DR, and our staff survey indicated a very high level of satisfaction with the individual 'on-the-job' feedback by line managers (87%F, 95%M).

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

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

Additional to support with regrading, we promote formal and informal opportunities for career progression;

- Ring-fenced funding for P&SS support; e.g. we funded membership of the Association of Research Managers, and attendance at ARM meetings for an MPA member.
- Technical staff in research groups can go overseas to work with peers e.g. recently 1M and 1F technician visited the Jefferson Lab in Virginia and 1M technician visited CERN in Geneva.
- Many members of the MPA team network College-wide through their involvement in a range of meetings (e.g. College L&T Admin meetings; College Graduate School administrator meetings)

Our support for P&SS career progression is far from comprehensive, and we will address this in our action plan.

Actions to improve P&DR and career progression for Professional and Support Staff	
5.4.3	Develop enhanced guidance for P&SS P&DR reviewers on discussing and identify training needs, the possibility of professional registration (as a means to structure career development) and next career steps at P&DR
5.4.4	Sign up to "Technicians Make it Work" initiative, providing additional recognition for our technical staff.

5.5. Flexible working and managing career breaks

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

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

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

- P&SS meet the HoSA to discuss plans, and University policies and procedures.
- Academic staff meet with their RGL, assisted by the HoSA, to plan their leave.
- A risk assessment is conducted for expectant mothers in line with Health and Safety, which is particularly important for laboratory work.
- Cover arrangements for P&SS and academic staff are agreed with HoS and RGL, and put in place *before* leave begins. Communication arrangements are agreed before leave starts.

The School promotes University leave policies at the Welcome Event, and in our handbook circulated annually to all staff and posted internally on the School website. Only 20% of female and 13% of male survey respondents did not know where to access the University maternity leave policy, however we want to improve this and will enhance signposting on our website.

Actions to improve cover and support for maternity leave: before leave	
5.5.1	Improve signposting of leave policies with a goal of no more than 5% of male- and female respondents actively disagreeing disagreeing that they know where to access them

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

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

During the reporting period the School had only one instance of maternity leave amongst R&T staff with teaching duties; a fixed-term lecturer was hired to cover teaching and administration during the leave and the remainder of the semester following the staff member's return.

We have never had a case of adoption leave but would offer the same support as for maternity leave.

Staff are encouraged to use their KIT days, where they feel they would be useful. The HoSA supports P&SS with making arrangements for these and the RGL does this for academic staff.

Through our IOP Juno Champion work we sought clarity on the rules for maternity/shared parental pay for SUPA-and CoSE-funded PhD students, both of which now follow research-council maternity rules and pay entitlements.

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

Explain what support the department offers to staff on return from maternity or adoption leave. Comment on any funding provided to support returning staff.

P&SS meet with the HoSA to oversee and support their return, update on any changes during their leave, and discuss expectations and objectives on returning.

Academic staff returning from maternity, shared parental or adoption leave can apply to the College Academic Returners' Scheme for up to £10k to support the resumption of their research (e.g. teaching buy out, research assistance, travel support). The School promotes this to all eligible staff by email. The HoS and the applicant's RGL give feedback on applications. Since the scheme's inception in 2015 two eligible members of staff (1 Research-Only; 1 R&T) have successfully applied with School support.

An accessible female toilet has a baby-changing table. Though School accommodation is under severe pressure, in a forthcoming refurbishment we have earmarked a 'quiet room' to be prioritised and equipped for nursing/expressing mothers, or parents wishing to bottle-feed in peace. A baby-changing mat will also be provided, as there are no suitable male toilets in the building for this.

Actions to improve cover and support for maternity leave: returning to work	
5.5.2	Equip the planned 'quiet room' and promote its use for nursing/expressing mothers or parents needing to bottle-feed in peace
5.5.3	Lobby the CoSE the possibility of extending The College Academic Returner's fund to cover other forms of caring leave (currently only covers maternity/parental and adoption leave).

(iv) Maternity return rate

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

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

All staff taking maternity leave since 2011/12 have returned to work following leave, as shown in Tables 5.29 and 5.30.

Year leave started	Number of maternity leavers	Returned	Employed 6 months post-return	Employed 12 months post-return	Employed 18 months post-return
2011/12	0	-	-	-	-
2012/13	1	1	1	1	1
2013/14	1	1	1	1	1
2014/15	2	2	2	2	1
2015/16	0	-	-	-	-
2016/17	0	-	-	-	-
Total	**4**	**4**	**4**	**4**	**3**

Table 5.29 Academic staff: maternity return rate

Year leave started	Number of maternity leavers	Returned	Employed 6 months post-return	Employed 12 months post-return	Employed 18 months post-return
2011/12	0	-	-	-	-
2012/13	0	-	-	-	-
2013/14	4	4	4	3	3
2014/15	1	1	1	1	1
2015/16	0	-	-	-	-
2016/17	0	-	-	-	-
Total	**5**	**5**	**5**	**4**	**4**

Table 5.30 Professional and support staff: maternity return rate

- All staff contracts continued during maternity leave. In one case, funding ended during leave, but the staff member returned by mutual agreement, under a different funding source.
- One research-only staff member (2014/15) resigned after 14 months, to take up a prestigious fellowship elsewhere.
- One P&SS member (2013/14) resigned 10 months after returning, due to ill health.
- All other returners (3 academic and 4 P&S) remained in post 18 months after return.
- Since 2011/12 of these maternity returners: two Grade 7 Research Assistants were promoted to Grade 8 Research Fellow, and a P&SS member was regraded from Grade 5 to Grade 6.

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

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

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Academic Staff						
Grade 6	-	1	1	-	1	-
Grade 7	-	2	3	1	-	1
Grade 8	-	4	2	-	2	-
Grade 9	-	-	-	-	-	1
Professor	-	-	-	-	-	1
Total	**-**	**7**	**6**	**1**	**3**	**3**
P&S staff						
Grade 6	-	-	1	1	-	-
Total	**-**	**-**	**1**	**1**	**-**	**-**

Table 5.31 Paternity leave uptake by staff, all were male.

- Academic staff at all grades take paternity leave. 2012/13 and 2013/14 were 'baby-boom' years;
- Two cases of ordinary parental leave were in 2012/13 (1F), and in 2014/15 (1M);
- One case of shared parental leave (M) was in 2015/16 - the only instance in the University (see Case Study in Section 6);
- 14 man took 1 week's paternity leave; 6 took 2 weeks' paternity leave - this was combined with paid annual leave.

Informal support exists for ECRs: the School's postdoctoral representative shared his experience of being a father at the UofG Research Staff Conference in 2017, and a PhD student in the School discusses being a father on the Glasgow PGR development Blog, and via a Parents' Network he established.

Actions to increase awareness/uptake of paternity, parental and adoption leave	
5.5.4	Promote the Parents' Network, and provide clear links to leave policies, on the E&D section of the webpage
5.5.5	With the permission of staff involved, include information on staff member's leave situation when celebrating new arrivals in the School Newsletter

(vi) Flexible working

Provide information on the flexible working arrangements available.

Formal flexible working:

- We have a 100% success rate for flexible working applications in the census period (4 female P&SS, 2 academic (1M: 1F)).
- Within a formal flexible working agreement, School policy is to adjust the pattern according to a staff member's needs wherever possible. This has been requested and arranged for 2 female P&SS.
- In our staff survey, 63% of respondents felt they could apply for flexible working arrangements, if required, while just 4% disagreed.
- Links to University policies on flexible working are included in the School handbook.

Informal flexible working:

- This is embedded in the School's culture. Staff can arrange their duties to leave early, and make up the time later, or work from home.
- Meetings in the School are usually arranged by doodle poll and accommodate varied working patterns.

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

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

Two R&T staff have transitioned back to full-time work after a period of part-time; both report that the transition was seamless, respecting individual circumstances.

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.

"Many thanks to Sarah Croke and colleagues who organised a schools event for 135 S3 girls from local schools in the Kelvin Building on January 11th. The event was a great success and an excellent showcase for studying physics and astronomy and the range of STEM careers to which a degree might lead."

Prof Martin Hendry, HoS, in January 2018 Newsletter

Outreach is highly valued in the School, and was one of our 'Impact Case Studies' in REF2014. Members from UG to HoS undertake an enormous range of activities, from mobile planetarium visits to primary schools, to displays at the Royal Society Summer Exhibition. Staff outreach activities are recognised in the WLM, while PGR students can formally record outreach activities as training credits. The School solicits information every 6 months on outreach (likely under-recorded). In 2015/16 at least 23% (32/137) of staff participated in outreach and 20% (28/137) in 2016/17, in F/M proportions consistent with the fractions employed in the School (Table 5.32)

Year	Women	Men	%F	Total hours
2015-16	5	27	15.6%	> 300
2016-17	3	25	10.7%	> 500*

Table 5.32: Outreach activities reported by staff and students (not including Open Days)

*The discovery of gravitational waves stimulated hundreds of additional hours of activity, including high-profile media interviews and newspaper articles, particularly for our HoS (male) and Director of the Institute for Gravitational Research (female). Staff and

student outreach is highlighted in the School newsletter, for example schools' workshops, Pint of Science, 7 Minutes of Science, and IOP public lectures.

The annual 'Particle Physics Masterclass' for school pupils has 20-30% female participants the Open Days have 25-50%. Some of our female ECRs are active as role models in local schools, and in 2017 we organised a workshop targeted at girls prior to their Higher exam choices. These actions aim to further improve the proportion of new Scottish-domiciled female students, in line with the Scottish Government's 'Gender Action Plan' for reducing subject-specific gender imbalances.

Actions to promote outreach activities by and among staff and students	
5.6.1	Create School media team (over-arching action for Section 5.6)
5.6.2	Highlight more outreach activities on the School news page, thereby promoting celebration of, participation in, and recording of outreach work by staff and students.

(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.

Colloquium Speakers: Since 2014, our call for Colloquium speakers emphasises the need for diversity. The percentage of females has improved to reflect the percentage of female PhD students, providing a wider range of role models (Table 5.33).

Year	Women	Men	Female percentage
2009/10	3	15	16.7%
2010/11	2	11	15.4%
2011/12	3	11	20.0%
2012/13	1	11	8.3%
2013/14	0	11	0.0%
2014/15	1	11	8.3%
2015/16	4	12	25.0%
2016/17	3	9	25.0%
2017/18	5	8	38.5%

Table 5.33. The numbers and Female percentage for School Colloquia per year

Public-facing materials:

Our 'welcome brochure', designed by our School recruitment committee, features images of men and women in different working environments. This supplements the University's brochure.

The front page of the school website (Section 2) features both sexes, and we are cognisant of gender, role and staff/student balance in the news items promoted.

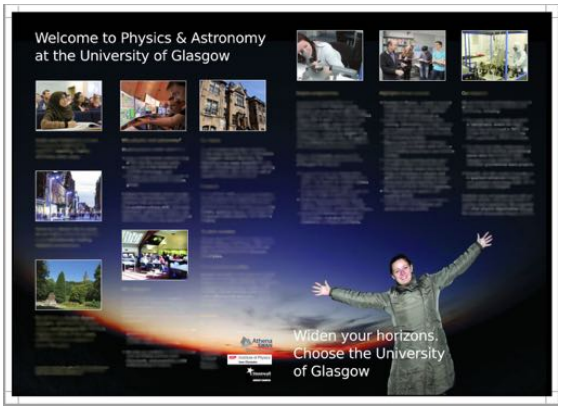


Fig 5.3: The inside spread of the Welcome brochure featuring diverse images.

Staff role models:

While balancing loads and expertise, the School Registrar's remit ensures that women are highly visible as lecturers and classheads. Lecturers change approximately every 5 years, so 2016/17 gives a snapshot (some courses split into 2 halves giving good exposure to female staff without overloading them.)

	Phys. 1 F/M	Ast. 1 F/M	Phys. 2 F/M	Ast. 2 F/M	Phys. 3 F/M	Phys 4/5 F/M	Ast. 3/4/5 F/M
2016/17	2/9	3/4	1/8	1/5	2/7	3/14	2/10

Table 5.35 The female/male ratio of lecturers in each class group.

- On UN International Day of Women and Girls in Science in 2016, 2017 and 2018 we had displays in our lobby, and in 2018 supplemented this with a twitter campaign featuring our own female scientists (Fig 5.4);
- This year we ran a twitter campaign featuring our LGBTQ+ staff and students, and a campaign for BME school members is underway.

Figure 5.4: some of the images featured in our International Day of Women and Girls in Science, in the lobby of the Kelvin Building and on social media

However, in the 2017 PGRES survey only 59% of male and 54% of female PhD students reported having role models they could identify with.

Actions to improve access to a diverse range of role models	
5.6.3	Review research-group pages for balanced content
5.6.4	Ensure that with handover of Colloquium responsibilities the message to promote diversity among speakers is continued
5.6.5	Ask colloquium speakers to start their talk with a couple of slides on their career track, incorporating personal/family circumstances if desired.
5.6.6	Include balanced and diverse images of inspiring scientists - including our own – in the School's rotating display on the screens in the Kelvin Building
5.6.7	Run a twitter campaign featuring our technical and support staff

(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.

Support for Researchers:
Our Postdoctoral Forum (established 2011) provides opportunities for PDRAs to share views. The chair attends School Management Team 2-3 times annually, and brings SMT responses back to the forum.

This model was showcased by the University as an example of best practice, as part of its work implementing the Concordat to Support ECRs, and provided impact as the P&A Postdoctoral Representative was invited to sit on the University Researcher Development Committee.

> Hamish presented on the Physics and Astronomy Postdoc Forum model and how it worked. This was inspiring and practically useful for other postdoc reps, who have since gone on to run events for postdocs in their Schools/Research Institutes.
> It gave them the confidence to speak to their Heads of School and ask for their support.

Dr Elizabeth Adams, University Researcher Development Manager

> Each School or Research Institute manages its own budget around recruitment. It has been extremely useful to use Physics and Astronomy best practice in offering carer's expenses as a concrete example with other departments about actions they can take as part of their own Athena SWAN activity.

Dr Katie Farrell,
University Gender Equality Officer

Recruitment:
We are the first School in the University to provide carer's expenses for interview participants. We trialled this initially with one academic post and have rolled it out to all posts - for all job families.

This has been shared across University SATs as a model of best practice.

Fig. 5.5. A student collage from our PGR experience project.

Understanding the PGR experience:
The highest drop-off of women occurs early, with women becoming less confident as their PhD progresses[7]. In summer 2017 we started a project, led by an intern and a colleague from Learning and Academic Development, to investigate this. Two PhD groups - one male, one female - documented their thoughts, experiences and environment in collages, followed by discussions that were recorded and analysed. These 'visual methods' may encourage discussion of a type otherwise not readily achieved[8]. We found women

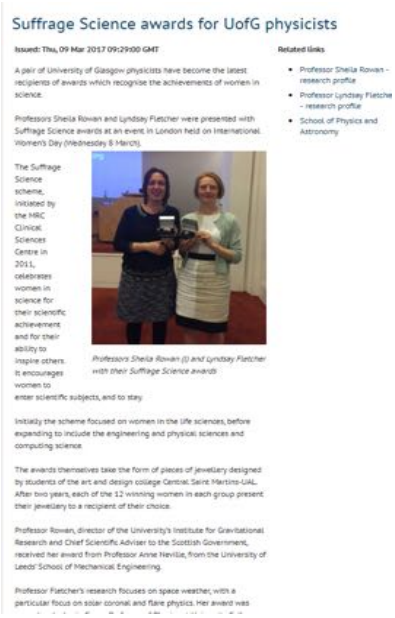
[7] Gazing at the Future: The experiences of male and female physics and astronomy doctoral students in the UK, IOP and RAS Report, May 2015
[8] Doing Visual Ethnography. Images, Media and Representation in Research, Pink, S. (2007), London: Sage

tended to shut down conversations about the underrepresentation of women in physics, even in single-sex discussions. Men readily acknowledged their own 'privilege'. We intend to address this through structured discussions including staff and at our Women in Physics Group. Gendered differences arose in how students deal with stress, highlighting the importance of providing a quiet room in our building refurbishment.

PG exit questionnaires: In 2016 we introduced these for PG students. Issued by the CoSE when the final thesis or dissertation is handed in, they provide (gender-disaggregated) comments on satisfaction at course completion. The practice was adopted for all Schools by the CoSE Graduate School and PGT Committee in 2018.

PGR Parents and Carers:
P&A PhD student Stuart Wilson established the first "Parents Network" at the University, which has almost 50 members. Stuart supported the establishment of a Parent Study Lounge in the University Library in 2017/18. This is pioneering and has excellent feedback from student parents. He shares his experiences of managing parenthood and postgraduate research with the network, through the PGR Blog and will present at a 'Women in Research Network' at the end of May on balancing work and family life.

Figure 5.6. Parent Study Lounge in the University Library


Suffrage Science awards for UofG physicists

Issued: Thu, 09 Mar 2017 09:29:00 GMT

A pair of University of Glasgow physicists have become the latest recipients of awards which recognise the achievements of women in science.

Professors Sheila Rowan and Lyndsay Fletcher were presented with Suffrage Science awards at an event in London held on International Women's Day (Wednesday 8 March).

The Suffrage Science scheme, initiated by the MRC Clinical Sciences Centre in 2011, celebrates women in science for their scientific achievement and for their ability to inspire others. It encourages women to enter scientific subjects, and to stay.

Professors Sheila Rowan (l) and Lyndsay Fletcher with their Suffrage Science awards

Initially the scheme focused on women in the life sciences, before expanding to include the engineering and physical sciences and computing science.

The awards themselves take the form of pieces of jewellery designed by students of the art and design college Central Saint Martins-UAL. After two years, each of the 12 winning women in each group present their jewellery to a recipient of their choice.

Professor Rowan, director of the University's Institute for Gravitational Research and Chief Scientific Adviser to the Scottish Government, received her award from Professor Anne Neville, from the University of Leeds' School of Mechanical Engineering.

Professor Fletcher's research focuses on space weather, with a particular focus on solar coronal and flare physics. Her award was

Related links

- Professor Sheila Rowan - research profile
- Professor Lyndsay Fletcher - research profile
- School of Physics and Astronomy

Recognition and Celebration:
Our aim to encourage women into P&A and to showcase best practices has been recognised nationally. In March 2017, two of our female professors were awarded a Suffrage Science award and in October 2017 Prof. Fletcher was named Equality and Diversity Champion at Scotland's national Diversity Awards.

Fig 5.7 Left: Sheila Rowan and Lyndsay Fletcher with their Suffrage science awards; Right: Lyndsay Fletcher receiving the Equality and Diversity Champion award.

Ongoing commitment to Juno and Athena SWAN:
As the first Scottish Department to become IOP Juno Champions, we support other IoP Juno committees, including hosting workshops (2014, 2017) attended by participants from Scotland, northern England and Northern Ireland. The Chair has presented at several University SATs and Committees on the School's experience of Juno and Athena SWAN.

Actions deriving from beacon activities	
5.6.8	Follow up on findings from PGR experience Visual Research project in structured discussions with female PhD students, and informally in GU Women in Physics meetings

(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.

Our inclusive culture starts with the clear statement from the HoS in his welcome to new staff and students, and extends far beyond the direct actions of the Juno Committee. Via Athena SWAN and IOP Juno, the active promotion of equality and diversity in our daily discourse has led to many grassroots examples of School members initiating and leading activities (e.g. a PhD student setting up the GU Women in Physics Group; a postdoc promoting Mental Health Awareness Week; staff voluntarily gathering and reporting event gender statistics and running projects investigating male/female learning differences; an UG physics society talk on being LGBTQ+ in physics.)

As equality is a standing item on all main committees, with formal reporting of the Juno Chair to SMT, this will continue. In 2017 the School introduced Equality and Diversity Officers (one male, one female; one academic, one P&SS) as a first point of contact for staff and students, to signpost sources of advice and University policies (Fig. 5.8).

Figure 5.8. A poster in the School publicising our School Equality and Diversity Officers.

In the more general sense of 'culture', we have increased the social and networking activities held in the School. Colloquia are followed by donuts and coffee, and MacMillan Coffee Mornings are a fixture. In 2016 and 2017 we held a weekend Christmas Party for children of staff and students. A newly-established School Social Committee is developing the range of events.

There are frequent, informal social gatherings within the Research Groups across the School (e.g. morning coffee). This enables conversations to take place outside the hierarchical spaces of staff and student offices.

Actions to further embed equality and diversity in the School's culture	
5.6.9	Revamp the undergraduate and postgraduate taught class inductions to ensure that the importance of equality and diversity is emphasised as central to our goals as a School
5.6.10	Develop a guide on appropriate behaviour for the culture and learning environment we want to cultivate, and share across the University via CoSE and GESG
5.6.11	Raise awareness among staff about the University Respect Advisors network

(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.

School Meetings: are held in 'core hours', with many arranged by online poll to accommodate flexible working where possible. The bi-monthly meetings of the administrative support team are on different days and times during core hours, ensuring that staff with part-time/flexible working patterns have an opportunity to attend at least one meeting in two.

Social events: Most events (welcome event, MacMillan Coffee Morning, Christmas party) take place, or start, within core hours. Some (e.g. marking retirals) are held after core hours but always begin at 4pm so that those who have to leave by 5pm can attend for an hour at least. Staff are informed that children are welcome at such events.

(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 polices.

Monitoring: The HoSA requests data on E&D training and R&S training (for interview panels) from the EDU quarterly, sending targeted reminders to staff and students who

E&D TRAINING	FEMALE	MALE	TOTAL
ALL STAFF			
Completed	**93%**	**95%**	**95%**
Incomplete	7%	5%	5%
ACADEMIC & RESEARCH			
Completed	**95%**	**95%**	**95%**
Incomplete	5%	5%	5%
PROFESSIONAL & SUPPORT			
Completed	**91%**	**97%**	**95%**
Incomplete	9%	3%	5%
PhD STUDENTS			
Completed	**62%**	**77%**	**73%**
Incomplete	38%	23%	27%

Table 5.36; E&D online training completion rate at 16 May 2018

have not completed this. SMT and the Juno Committee are updated annually. Our current E&D completion rates are below. PhD students must complete by 1st year progression, in May/June, so their percentage will increase.

The School's Equality and Diversity Officers' written remit includes knowing, and advising on, the University's "Dignity at Work and Study" policy. Survey results show increased awareness of University E&D policies in 2016 versus 2014, though in some areas we lag the College and University.

Awareness of policy/practice	P&A 2014	P&A 2016	CoSE 2016	University 2016
Staff & employee counselling	44%	**51%**	55%	65%
Dignity at work & study policy	16%	**52%**	49%	57%
Equality & diversity policy	84%	**97%**	92%	96%

Table 5.37: awareness of University Policies compared to College and University, from University Staff Satisfaction Survey

Communication: SMT meets regularly with HR to discuss procedural updates, policy development and personnel issues. Updates are disseminated to staff through one-to-one meetings, Research and Teaching Staff Forum, and the newsletter. We also used the newsletter to introduce the E&D officers, and point out how the School dealt with some E&D issues (e.g. graffiti in toilets and lecture theatres.)

Actions to further embed knowledge of HR policies	
5.6.12	Encourage uptake of Unconscious Bias training in the School (not currently required by the University) with the aim of attaining > 90% uptake by 2020
5.6.13	Improve awareness of University E&D policies by including clear links in the E&D section of the School website

(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.

The School ran a successful internal WLM for many years until 2014. A University-wide WLM, introduced in 2015, involved an impractical data entry task by P&SS. Expected updates to solve this did not appear so we re-introduced our own from 2017.

Description: The WLM captures information under teaching, research, supervision, outreach and engagement, and administration (internal & external). Each task has a grade

and associated nominal hours. Grades can be queried by the staff member. The majority of academic staff (61%M (20/33), 67%F (4/6) and 100% undeclared (4/4)) agree that teaching and admin allocation is fair.

Use of the WLM: The WLM not used at P&DR. It is a structured tool to support fair and equal workload of individuals, and optimise their contribution to maximise their likelihood of advancement and promotion

Gender considerations: It is important that students encounter women frequently as lecturers and in leadership positions. The remit for the annual teaching allocation reflects our aim for each year group to Level 4 to have a female lecturer in their core Physics and Astronomy courses (Table 5.33), but taking into account overall load, expertise and opportunity for variety.

The nominal rotation on school positions of responsibility is 5 years, but takes into account the need for team stability and experience, and (study) leave or secondment.

(viii) 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.

Influential committees are Teaching (TC), Graduate School (GSC), School Management Team (SMT), Research and Strategy (RSC) and Juno Committee (JC). All professors and RGLs sit on RSC, which addresses all aspects of the School's academic life and promotes the involvement of all senior staff in research, teaching and administrative decisions.

Membership of these committees is established annually, and distributed to the School.

	2011-12			2012-13			2013-14			2014-15			2015-16			2016-17		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
SMT	2	3	**40%**	2	3	**40%**	2	3	**40%**	2	3	**40%**	2	3	**40%**	2	4	**33%**
TC	1	12	**8%**	1	10	**9%**	2	9	**18%**	2	10	**17%**	2	11	**15%**	2	11	**15%**
GSC	1	9	**10%**	1	8	**11%**	2	8	**20%**	2	11	**15%**	2	9	**18%**	2	8	**20%**
RSC	2	13	**13%**	2	13	**13%**	2	15	**12%**	3	14	**18%**	3	15	**17%**	3	17	**15%**
JC	4	1	**80%**	3	2	**60%**	4	2	**67%**	3	3	**50%**	4	2	**67%**	8	7	**53%**

Table 5.38 Makeup of important School committees by gender

	2011-12			2012-13			2013-14			2014-15			2015-16			2016-17		
	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F	F	M	%F
SSLC1	0	12	**0%**	3	14	**18%**	2	10	**20%**	2	9	**18%**	1	12	**8%**	1	10	**10%**
(UGs)	3	2	**60%**	4	6	**40%**	4	5	**44%**	5	4	**55%**	4	6	**40%**	3	8	**27%**

SSLC2	3	12	**20%**	2	13	**13%**	4	10	**40%**	4	10	**40%**	3	9	**25%**	4	10	**40%**
(UGs/PGT)	5	6	**45%**	4	6	**40%**	3	7	**30%**	4	4	**50%**	3	5	**60%**	1	7	**13%**
R&RC	2	8	**20%**	2	9	**18%**	2	6	**25%**	2	7	**22%**	2	7	**22%**	2	7	**22%**

Table 5.39 Makeup of other School committees by gender. SSLC = staff-student liaison committee – elected student members are in the second row), R&RC = (undergraduate) recruitment and retention committee.

Recruitment is by open call and direct approach from HoS, the latter taking into account the skills, career benefit and workload of each individual. Staff can use the annual PDR to discuss committee opportunities. Activity and hours is recorded via the WLM.

Gender considerations: All committees now have at least one male and one female (Table 5.38, 5.39). The female percentages of the committees other than Juno (which includes PGR and postdocs) reflect the gender balance of permanent staff; women are appropriately represented but not overloaded. Some senior positions come with promotion, so ensuring good female promotion rates feeds committee diversity.

(ix) 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?

- Such positions, as 'indicators of esteem', are linked to P&DR and promotion, and raised during P&DR and ECDP discussions. Relevant opportunities are usually identified and discussed with RGLs and line-managers.
- For University/College committees, membership is often tied to a role in the School. However, as committee work assists in promotion, colleagues are also put forward for without having a corresponding School position.
- In a straw poll of R&T and TLS staff (66% response rate) 3 female and 12 male academics reported holding University or College-level positions, indicating balanced representation. 5 female and 25 male academics reported more than 100 diverse national and international research-council, editorial, learned society and discipline-leadership activities.

[6969 words excluding footnotes]

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.

Sarah Croke, Lecturer:

I joined the School in September 2013, as a Lecturer (Grade 8). I had my second daughter 18 months later and took maternity leave between July – November 2015. My husband previously took on the role of stay-at-home-dad and so the amount of leave I could take was influenced by the University's paid leave provisions.

As is now School practice, our HoSA emailed me directly to let me know about the Academic Returners Research Support Scheme *before* my leave.
My Research Group Leader and the Head of School provided feedback and support for my application and I submitted it before I went on leave. I was successful and used £10k awarded to hire a Postdoctoral Research Assistant for three months (February –April 2016).

The School hired a temporary Lecturer to cover my teaching and admin duties while on leave.. My cover was in place before I left and it was really useful to discuss each of the roles he was taking over beforehand. He remained in place for the rest of semester 1 2015/16, continuing to cover my duties until the end of the semester. I was first supervisor to one PhD student, and the second supervisor looked after him while I was on leave

I was still on probation during my maternity leave. The Head of School discussed with me how best to deal with this and we continued the probation process as normal, successfully submitting the year 3 report as planned in March 2016, despite the period of leave. It was definitely the right decision for me to do this (rather than extending probation by the amount of time taken as leave). Having guidance and advice from senior management on this career transition point was invaluable.

I kept in touch during leave by attending our research group meetings a few times. I brought my daughter with me, and everyone was delighted to see her. I also met up with my PhD student a couple of times while on leave to stay in touch.

Although we tried for several weeks before my return, my daughter refused to take milk from a bottle. Thus, for the first few weeks I would go to the office in the morning, leave at lunchtime to feed her, and work from home for the afternoon. By the second semester we were able to introduce some solid food, and it got easier. I could stay in the office a little longer, leave mid-afternoon, and catch-up in the evenings. My Research Group were very supportive of this pattern; I cannot imagine how stressful this process would have been if I had been in a less family-friendly School where I was expected to be in the office 9am-5pm.

Having Returners' Scheme funding for a PDRA was really useful. This support helped with, and is acknowledged in, a number of publications[9]. As well as ensuring progress continued on my research when I returned, this gave me my first experience of managing a PDRA.
I was later able to share my application with a Postdoctoral Fellow in our group, who also applied, successfully, to the Scheme.

My husband started a course in early years' childcare last year. In balancing both our commitments outside the home, flexibility with working patterns has been invaluable. I sometimes need to leave early to collect children, take time off for the kids' appointments, or work from home if one of them is ill. There are never any problems accommodating this within the Research Group and this helps to take the stress out of managing these situations when they arise.
[677 words incl. footnotes but excluding name/title]

Angela Eden, Head of School Administration:

I joined the University and the School in October 2004; employed on Grade 7 as the Departmental Administrator on a fulltime basis. I had my first period of maternity leave from December 2005 to May 2006. I returned to work from maternity leave in June 2006, initially, on a full time basis. I decided to reduce to 4 days per week in September 2006 to support childcare commitments.

Whilst working part-time, I successfully applied for regrading to the promoted level of Grade 8 in November 2009, receiving positive support and guidance around my application from the School and my Line Manager (the Faculty Secretary).

I had another period of maternity leave from early October 2010 and returned to work in August 2011 on a reduced 0.7FTE basis. This has allowed me to continue to accommodate caring commitments. As my children have grown up I have slightly increased my working hours to 0.74FTE and my current working pattern is: Mondays and Fridays 10am to 2pm; Tuesdays, Wednesdays and Thursdays 8am to 2pm. This working pattern means that I'm able to successfully juggle having a career and a young family. There was no issue with me seeking to increase my FTE slightly when I requested it.

I have consistently found the School to be an extremely supportive environment of both my career aspirations and childcare and parenting commitments. I have benefitted from the positive culture around flexible working and have sought to instil the same values and approach in the way that I lead and support the professional services staff that I manage.

In my time as Head of School Administration nearly all of my team have been supported to successfully apply for regrading ('promotion') and several work flexible patterns to accommodate childcare and other commitments outside of work.
[297 words excluding name/title]

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[9] G. Weir, C. Hughes, S.M. Barnett, and S. Croke, "Optimal measurement strategies for the trine states with arbitrary priors", *Quantum Science and Technology* **3**, 035003 (2018);
G. Weir, S.M. Barnett, and S. Croke, "Optimal discrimination of single-qubit mixed states", *Physical Review A* **96**, 022312 (2017);
S. Croke, S.M. Barnett, and G. Weir, "Optimal sequential measurements for bipartite state discrimination", *Physical Review A* **95**, 052308 (2017);
S. Croke and S.M. Barnett, "Difficulty of distinguishing product states locally", *Physical Review A* **95**, 012337 (2017).

Matt Pitkin, Research Fellow:

I joined the School in 2002 as a PhD student studying in the Institute for Gravitational Research. On completion of my PhD in September 2005 I was offered a position as a Post-Doctoral Research Assistant at Grade 6 within the same research group. I have stayed in the School and research group ever since and have progressed to my current position of Grade 8 Research Fellow.

My first child was born in July 2013 and I took the standard two weeks of paternity leave. This was before the option of shared parental leave was available.

My second child was born at the end of August 2015. Before the birth my wife (who works as a Senior Clinical Lecturer in the College of Medical, Veterinary and Life Sciences at UofG) and I decided we would like to share some of the leave, with my wife taking three months off after the birth, followed by three months of shared leave (from December 2015 to February 2016).
Shared Parental Leave was new to the University and we were the first people to request it. The School, my line manager and my direct supervisor were all happy with, and supportive of, my request and the arrangement we proposed, which was slightly more complex than standard paternity leave.

After our son's birth I took three weeks of paternity leave (we had planned for two weeks of leave, but complications during birth and an extended stay in hospital for my wife meant that I added an extra week). During the shared leave my wife and I split things in a quite complicated way: one week I would take Tuesday and Wednesday off, followed by Tuesday, Wednesday and Friday the following week, and this repeated.

My team were really supportive of this staggered pattern. My leave also fell at an extremely exciting and busy time for the team, as the first gravitational wave was detected at the end of my initial three weeks of leave.

I have found the School a really positive environment in which to take Shared Parental Leave and to be a working parent. There has never been any problem with having to take the occasional day or half day off to collect and look after a sick child, or take them to appointments. It was helpful that everyone was supportive when I said that I wanted to take shared leave, given how new the policy was at that time. The fact that nobody foresaw any issues with the plan of how it would work was a great relief and took a lot of pressure off of our planning for the new baby. Both my wife and I appreciated being able to balance leave with work and take the days around our needs at home without being bound to take it in blocks, which would have been easier for the School to manage.

[479 words excluding name/title]

[1453 words including footnotes but excluding names/titles]

7. FURTHER INFORMATION

Recommended word count: 500 words

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

Gender Pay Gap:
The overall (P&SS and R&T) gender pay gap in the School reduced from 18.16% to 14.8% over the last 4 years.
The gap is slightly lower than University and College equivalents for 2016/17 of 17.4% and 16.1%, respectively.

Due to low female numbers and differences across grades, HR were unable to provide disaggregated data.

Our pay gap is impacted by the general underrepresentation of RT women, particularly in Professorial roles. We ensure that men and women are paid equitably for the work that they do. The University's process of Professorial zoning provides a coherent structure for the promotion and appointment of Professors within 4 'zones', based on performance.

This facilitates more concrete discussions about salary expectations at appointment as well as ensuring progression within zones for those promoted to Professorial roles.

[134 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.

ACTION PLAN

If you require a landscape page elsewhere in this document, please turn on SHOW/HIDE  and follow the instructions in red. This text will not print and is only visible while SHOW/HIDE is on. Please do not insert a new page or a page break as this will mean page numbers will not format correctly.

Actions are organised under the Sections in the Self-Assessment form, as indicated above each group.

School of Physics and Astronomy Athena SWAN GOLD Action Plan – May 2018

The Self-Assessment Process - Section 3

ACTION POINT	PRIORITY	OBJECTIVE	PREVIOUS (JUNO) ACTION, IF ANY, AND PROGRESS	NEW ACTIONS	RATIONALE	RESPONSIBILITY	TIMELINE	TARGET GROUP	SUCCESS MEASURE
3.1	1	Continuity of Juno Committee	Juno committee expanded in September 2016 as work for Athena SWAN gold started	Appoint new chair and deputy, refresh membership	The current chair has held the position for a decade now. Other committee members have held roles more than 5 years. It is good practice to turnover committee membership to bring new ideas and expertise, and broaden the involvement of School members.	Juno Committee Chair, HoS	Within six months of start of academic session 2018/18	Members of the school (volunteers)	New chair takes over Call for volunteers for committee membership issued, new members appointed. Committee continues to meet frequently and run smoothly.

3.2	2	Athena SWAN and Juno planning		Produce online calendar of events for committee attention	To provide additional ongoing structure and momentum, long term, for Committee activities.	Juno Committee Secretary (RM)	6 months	School – to provide suggestions for items for the calendar. Calendar will also be visible to School.	Calendar produced and visible.
3.3	1	Develop School's E&D ambition and environment with respect to professional conduct	The School holds "Juno Champion" status, and has seen substantial progress and change in culture as a result.	Apply for 'Juno Excellence', working with School and E&D unit to develop a statement on professional conduct. Appoint a committee member responsible for overseeing work on professional conduct	Engaging with the "Excellence" award will help us develop actions around professional conduct for staff and students, which we wish to promulgate through the School. It will also provide ongoing momentum for the committee.	Juno Committee (Sarah Croke) and member she appoints for overseeing this work. HoS	18 months (we intend to apply in calendar year 2019)	All staff and students in the School.	Juno "Excellence" application made. Statement on professional conduct developed, published, publicised at undergrad, postgrad and staff inductions. Awareness of statement examined in a future staff survey.

Undergraduate Student Recruitment and Retention - Section 4.1									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION, IF ANY, AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
4.1	2	Enhance understanding of impact of Open Days on, particularly female, students choices to (a) study physics; and (b) to pursue degree at Glasgow	Survey issued to Physics 1 students in 2017/18 re: experiences of studying physics and motivations for studying physics at university	Expand Physics 1 survey to investigate students' motivations for coming to Glasgow and the role of Open Days, generally, and the School's Open Days, in particular, on decisions about course and place of study.	Currently a higher fraction of student visitors to open days than applicants are female. Better understand the role of Open Days so that they can be revised to maximise female engagement and subsequent applications to study Physics and Glasgow.	Juno Committee (Sarah Croke)	2018/19	UG Physics 1 Students	Useable quantitative and qualitative data from survey to inform development of actions around the content and structure of future Open Days.
4.2	1	Make the successful pilot workshop 'Girls into Physics' workshop for S3 (Y9) pupils run in January 2018 a regular part of the School calendar, and expand its reach, to broaden the pool of potential applicants.	In partnership with the Institute of Physics, the school ran a successful physics workshop for girls at the stage before they choose their Scottish Highers (University Qualifying Exams)	Embed the workshop in the School calendar, and co-organise with University of Strathclyde. Improve the existing questionnaire to obtain information specifically on the Glasgow/Strathclyde workshop.	The pilot workshop was very successful; 135 applicants indicated a strong local demand for such an initiative. By co-organising Strathclyde (geographically close) we both broaden the reach, share the	Juno committee (Sarah Croke)	January 2019 and annually thereafter	Local schools, and members of the School of Physics and Astronomy to assist as demonstrators/speakers.	School runs Questionnaire issued and returns quantitative and text data useful for the School in understanding the interests and motivations of girls thinking about

			There was a follow-up questionnaire on this and other workshops held elsewhere		load, and work with a sister department on their Athena SWAN journey. This also supports our work on the Scottish Government's Gender Action Plan				their academic subjects and futures.
Postgraduate Student Recruitment and Retention - Section 4.1									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
4.3	1	Better support taught postgraduate students from diverse and international backgrounds.	PGT Questionnaire developed to assess support of PGTs. Guidance Note on expectations and staff/student responsibilities and support produced to clarify based on survey findings	Use PGT exit questionnaire to evaluate impact of new Guidance Note on student responsibilities and reasonable expectations of staff regarding clarity and consistency of support.	Assess impact of new Guidance Note on students understandings and sense of support.	School PGT Convenor	Survey to be updated and issued for 2017/18 cohort in Sept/Oct 2018	PGTs	Responses show at least 75% male/female PGTs reporting understanding and effectiveness of Guidance Note. At least 75% male/female respondents reporting feeling supported in their studies

									and their projects.
Staff leavers - Section 4.2									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
4.4	2	Enhance understanding of reasons Research Only staff resign before completion of project	The school secretary asks RGLs for the names and leaving dates of group members who leave each year when updating internal records. However the reasons for leaving are not recorded this needs to be systematised.	Develop local mechanism to record reasons for Research-only staff resigning from posts Research Group Leaders to gather information on reason for leaving project early for those resigning from research only posts. Researchers to be asked upon notification of intention to resign. Data to be provided to Juno Committee for collation, analysis and action recommendations to SMG.	We see reasonably high proportions of women resigning before the end of their post. Must ensure that PDRAs leaving projects early is because of career progression and not because of the research environment or negative experiences.	Research Group Leaders; Juno Committee (Steve Barnett)	Develop form and process guidance for roll out and use from 2018/19 onwards (Sept 2018)	RAs, PDRAs	Systematic data collection of reasons for Research Only staff resigning early from post. Robust data analysed and any gendered patterns highlighted with appropriate actions flagged to SMG, where necessary.

Recruitment - Section 5.1 & Section 4.2									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.1.1	1	Increase fraction of female applicants to R&T positions.	School committed to cover carer's expenses for recent interviews.	Verify that this is embedded in the advertisement template for all positions advertised in the School.	Women are successful when they apply for posts at both shortlisting and interview stage; we need to increase the proportion applying in order to improve our female recruitment.	HoS HoSA	June 2018 onwards	Prospective Female RT candidates	(Applies to 5.1.1, 5.1.2, 5.1.3) Increase proportion of women applying to RT posts to at least 20% over the life of Action Plan. A substantial increase on the average %F applying for RT posts over reporting period (9%; 12% across Grades 8-9).
5.1.2	1	As above	Trial re-wording of job description for 2 recent R&T appointments.	Develop and roll out revised job descriptions for all academic positions, seeking advice from Equate Scotland on wording in job templates for R&T jobs, evaluate impact on applicant statistics.	As above.	HoS; Juno Committee (Steve Barnett); HR Recruitment	Analyse feedback from Equate over Summer 2018; Develop revised templates for roll-out at beginning of 2018/19 session	Prospective Female RT candidates	

5.1.3	1	As above.	Recruitment checklist includes prompt to consider how to broaden applicant pool, encouraging women to apply	Develop a list of networks, including on social media, for targeting female applicants; include in paperwork circulated to panel chairs with recruitment checklist.	As above	RGLs (for networks/contacts) School Secretary (for checklist update)	List developed and embedded in recruitment guidance by start of 2018/19 session	Prospective Female RT candidates	
All staff Induction - Section 5.1 (ii), Section 5.3 (i)									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.1.4	1	Improve induction for all new academic staff, enabling them to integrate more quickly into the School.	School hosts annual induction event for new staff and students, reviews content by questionnaire.	Develop a standardised School induction pack, containing research-group specific information.	Some research groups and staff categories provide a structured process and tailored induction pack, but practice is not uniform. P&SS staff, who have a more structured induction, report positive experience of induction, compared to academic staff who reported 53% in agreement that induction met	HoS; HoSA; Juno Committee (Chris Bouchard)	Induction process revisions between June and November 2018; Full roll out by no later than January 2019	New Academic Staff	Substantial improvement in next staff survey to question on induction, with at least 75% new male and female academic staff responding positively about their experience.
5.1.5	1			Standardise the use of the University induction checklist for all staff; 6-month check-in to be verified with HoSA					
5.1.6	2			Discuss updated School induction processes at the annual induction event, and Research and Teaching Staff Forum.					

					their needs (40% female; 55% male).				
Academic Promotion - Section 5.1 (iii)									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.1.7	1	Improve School support in working towards promotion - academics	Existing academic promotions workshop, running annually since 2015.	Refocus promotions workshop towards building the evidence base	We have a very high success rate when staff decide to go for promotion, but staff may need further concrete advice/encouragement to decide to make an application. This will focus on positive steps.	HoS Juno Committee (Steve Barnett)	October 2018 (date of next promotions workshop)	All academic staff thinking about promotions.	Academic staff report feeling more supported in working towards promotion (School Survey).
5.1.8	1	As above	A recently promoted academic staff member presents at the workshop about their route towards promotion.	Identify colleagues willing to give informal advice on promotion applications – recent successful applicants at same or higher grade as promotion sought.	Some workshop participants may not identify with the approach of the main presenter in the workshop, and be discouraged.	As above	As above	As above	As above
5.1.9	1	As above	The School has a well-embedded P&DR process	Update existing P&DR memo that includes	Though the P&DR is formally decou-	As above	Next P&DR round (starting	As above	As above

			with 100% uptake.	highlighting the opportunity to discuss promotion intentions. Produce P&DR checklist	pled from the promotion, it should nonetheless be a place where promotion plans can be discussed. This may not be realised by all.				
Professional and Support Staff Regrading – Section 5.2(ii)									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.2.1	1	Improve School support in working towards regrading – P&SS		Produce FAQ about the regrading process for P&SS and distribute with the HoS email about regrading	Male P&SS reported a low satisfaction rating (43%) with support towards regrading	HoSA, Technical Staff overall line manager. Juno Committee (Mark Jones)	6 months (in time to work towards the April 2019 regrading panel)	Professional and support staff	FAQ appears and is circulated with next announcement of regrading opportunities
5.2.2	2		The HoSA provides concrete advice on writing regrading cases.	Allocate reasonable career development hours in a P&SS member's workload to work on regrading case.	Writing a regrading case is challenging and requires dedicated time	HoS, HoSA	Immediately and ongoing	As above	P&SS report feeling more supported in the support they receive (staff survey)

Academic Career Development - Section 5.3 (i), Section 5.3 (v)									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.3.1	1	Increase confidence of postdoc and PhD students in their ability to carry out their teaching duties, by sharing best practice across the School. Will also benefit 'experienced' teachers.	School ran 2 tailored learning and teaching workshops for postdocs, which were popular but did not become a regular fixture.	Develop and embed a new school-wide learning and teaching workshop, with sessions that target all staff and students involved in learning and teaching.	Postdocs report low satisfaction with training courses offered, and the Forum reports a desire in particular for support in developing as teachers. (PhD students receive University training as graduate teaching assistants but it is not tailored to their needs)	Head of Teaching Committee HoS Juno Committee (Andy Buckley, PGR members)	18 months, planning to run the first event by summer 2019 (many staff will already have commitments for 2018)	All PhDs and Postdocs in the School	Workshop runs, follow-up questionnaire issued to discover if it has been useful for audience (and to inform future needs)
5.3.2	1	Improve training opportunities for postdocs	Postdoc forum hosted a talk by Elizabeth Adams, the University Researcher Development Officer.	Postdoc forum runs a questionnaire and special meeting on training needs – including training for writing grant and fellowship applications - and prioritises courses.	We need to understand where to prioritise resources when organising in-house events.	Juno Committee (Hamish Reid) Postdoc Forum	Forum meeting held within 6 months	School postdoctoral staff	Forum identifies priorities, makes recommendation to HoS
5.3.3	2			School pilots in-house training based on outcome of 5.3.2.		HoS Juno Committee (Hamish Reid)	First training session runs within 12 months	School postdoctoral staff	Training session runs.

				Assesses success/suitability with follow-up questionnaire					Feedback analysed to inform future progress. 75% of post-docs report access to courses that meet their career-development needs
Academic Performance and Development Review - Section 5.3 (ii)									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.3.4	2	Improve usefulness of the P&DR	Head of School issues comprehensive memo about P&DR process	Emphasise in the P&DR memo that it is possible to request a different P&DR reviewer than line manager, and also to encourage serious thought about training	A majority of research-only staff were unaware that they could request a different P&DR reviewer.	HoS Juno Committee (Sarah Croke)	Prior to next P&DR round starting (August 2018)	All staff	Memo updated 75% of all staff report that they know they can have a different reviewer
5.3.5	1	As above		Produce a brief P&DR checklist for reviewers and reviewees suggesting topics for discussion beyond the content of the form, addressing areas where P&DR gets a	Ambivalence about process overall suggests P&DR currently focuses too much on performance over development, with	As above	As above	As above	Checklist produced Satisfaction with P&DR

				poor rating, and emphasising the development aspect.	average satisfaction rating of 46% (F), 41% (M). Though the University requirements cannot be changed easily, the direction of the discussion can be made more helpful				overall increases to over 60%
Support for Academic Career Progression – Section 5.3 (iii), Section 5.3 (iv)									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.3.6	2	Improve the understanding on both sides of what is meant by career progression and what the School can do to improve support for this.		Investigate in focus groups with R&T and TLS staff what additional practical steps the School can take to support career progression.	Although the School already offers a number of practical support mechanisms outside of training and P&DR, a substantial fraction of academic staff report that they do not receive support in career progression	Juno Committee (Sarah Croke leading, but involving other R&T staff members on the committee)	18 months	All R&T staff	Focus groups run, understanding improved. Practical actions identified and brought to SMT
5.3.7	2	Improve School's support for career progression for male and female	School already provides a number of summer internships and	Use student record system, which handles all intern payments, to	Check that opportunities are reaching and benefitting	School Secretary (who registers and pro-	Begin the practice in	Undergraduate students	Robust statistics obtained

		undergraduate students thinking about an academic career.	opportunities for undergrads to become involved in teaching-related activities (*nb not a Juno action, this is a long-standing initiative)*	monitor gender-disaggregated statistics for undergrad students on summer internships in the School.	male and female students equally. Where they are not, introduce mechanism to ensure equitable engagement by male and female students with these opportunities.	cesses all internships via MyCampus student records system)	summer 2018		on gender distribution of opportunities. Action taken to redress imbalances if identified (i.e. fractions of successful students significantly different from undergraduate F/M fractions)
5.3.8	1	Improved support for PhD students in their career development.	PhD students already have access to a range of core and transferable skills events (*nb not a Juno action, this is the long-standing responsibility of the School and College PG committees)*	Develop and run targeted courses/workshops on core research skills and research integrity Investigate doing this with SUPA for improved efficiency, information sharing, and to benefit PGs across Scotland.	The PRES survey identified that student satisfaction with these aspects of their training and career development is low. The School PGR committee wishes to address this.	School postgraduate committee Juno Committee (Stefan Hild – who is also postgrad committee chair, PGR committee members)	12 months, and ongoing	Postgraduate students	Workshop identified and runs. Students support improved satisfaction under these questions in the 2019 PRES survey.
5.3.9	1	Increased understanding by PhD	As above	Introduce an annual Q&A or panel discussion with academic staff at different levels, e.g.	There is no provision in the School for PhD students, particularly towards the end of	As above	2019 3rd year conference (2018 programme is	Postgraduate students	Session runs Students report in the feedback

		students of the academic career trajectory		during lunch break at the 3rd year conference. Obtain feedback on this session by brief questionnaire.	their degrees, to have a frank discussion about the academic life.		already fixed)		questionnaire that the session was useful.
5.3.10	1	Increased awareness of range of careers outside academia, and understanding of how PhD training prepares for this	SCOPE "speed dating" careers event for science and engineering PhDs and ECRs already instigated by a Physics and Astronomy PhD student.	Promote the range of career destinations of our own PhD and MSc students at PGR induction Provide case studies online from recent PhD graduates who worked in different areas, and are now working both inside and outside the academic sector.	"Science and Engineering" – the remit of the SCOPE event – might still be too broad see how their skills are matched to industry, particularly if they have been working in a very theoretical area.	Juno Committee Chair (Sarah Croke) and Stefan Hild, who both presents at PGR Induction	PGR induction for 2018 intake	Postgraduate students	Session runs
Support for grant applications – Section 5.3 (v)									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.3.11	2	Improve tailored support to those writing research proposals	School's existing support includes mock interviews, database of individuals' experiences with ~40 research funders,	Run a workshop on writing grant and fellowship application (see also Action Point 5.3.2).	Though satisfaction with School's support overall is high, it can still be improved. This links also to career development op-	Juno Committee (Steve Barnett) School Research Coordinator	18 months	All R&T staff	Session runs Staff report feeling more supported in career development in the next Staff Survey

					portunities for Research-only staff in particular.				
Support for Professional and Support Staff Career Progression – Section 5.4									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.4.1	1	Improve access to relevant training for P&SS.		Promote the available University postgraduate supervisor training to technical staff involved in assisting undergraduate and postgraduate labs.	In 2017 staff survey, 75% of female but only 57% of male respondents reported access to relevant training.	Chief Technician	Promote throughout next academic session: 2018/19	P&SS	Improvement in response to questions about access to training in next staff survey – to at least 75% male and female respondents in agreement.
5.4.2	1	Improve usefulness of P&DR to P&SS males, in particular, through enhanced reviewer discussions.		Develop enhanced guidance for P&SS P&DR reviewers on discussing and identifying training needs, the possibility of professional registration (as a means to structure career development) and next career steps at P&DR.	In 2017 staff survey, only 38% of male P&SS agreed that P&DR was useful overall. (75% women were in agreement)	Chief Technician; P&DR Reviewers	Brief memo prepared for next P&DR round- starting June 2018; Fuller guidance developed, reviewed and in place by	P&SS Males, in particular	Next staff survey shows improvement to equivalent question amongst male P&SS to at least 70% in agreement.

							P&DR 2019 round.		
5.4.3	1	Enhance sense of value and recognition amongst Technical staff.		Sign up to "Technicians Make it Happen" initiative, providing additional recognition for our technical staff.	We celebrate the achievements of Technical staff and the value that they bring to research and School life. We want to use this campaign as a framework to enhance support and recognition of their work and professional development opportunities.	HoS	Sign up by December 2018	P&SS, Technicians	At least 80% P&SS in agreement in the next staff survey that their contributions, skills and experience are valued by the School.
Flexible working and managing career breaks – Section 5.5									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.5.1	1	Improve awareness of parental leave policies	University leave policies promoted at induction workshop and in School handbook.	Improve signposting of existing leave policies in induction materials and on E&D pages of School website.	20% of women and 13% of men report not knowing where to access these policies.	HoS; HoSA; Juno Committee (Ian MacLaren;	By June 2019	All staff	No more than 5% of male and female respondents actively disagreeing that they know

						Rachael McLaughlin)			where to access them.
5.5.2	1	Improve cover and support for those returning from caring leave.		Equip a planned 'quiet room' and promote its use for baby feeding/expressing.	Fit out the already identified room, as part of a forthcoming School refurbishment we intend.	Juno Committee (Lyndsay Fletcher); SMT	In line with refurb, scheduled for 2019/2020	Returning mothers to work or study	Space identified and useable for all staff and student groups.
5.5.3	2	Lobby CoSE to expand coverage of the Academic Returners Research Support Scheme to staff with wider caring responsibilities.	College returners' fund only covers maternity/shared parental/adoption leave.	Lobby the College to expand for returners who have taken leave to cover other kinds of caring.	Colleagues can take long term caring leave for a variety of reasons, and all have an impact on research careers. Additional caring duties also fall disproportionately on women.	Research Convenor; Juno Committee (Sarah Croke)	2018/19 – 2019/2020	All Staff	College expand the scope of Returners Scheme to cover those taking periods of leave to cover additional forms of care.
5.5.4	1	Improve awareness and uptake of paternity, parental and adoption leave.	We flag these policies at induction and in School handbook	On revamped E&D section of the School Website, promote University of Glasgow Young Parents Network, and other resources related to leave. Include clear links to leave policies in E&D section of the School website	The fraction of staff knowing of existence of these policies can be improved	School Media Team Juno Committee (Sarah Croke)	12 months	All staff	Updates made Staff report knowing of these policies in increased numbers(80% agreement from men and women).

5.5.5	1	Increase support for and celebration of new parents, in-keeping with School's family-friendly environment		With the permission of staff involved, include information on their form of leave when celebrating new arrivals in the School Newsletter.		Juno Committee (Rachael McLaughlin, also responsible for School webpages and Newsletter)	As new births arise, announcement to be circulated within 1 month of new child. Where staff are mothers taking maternity leave, this will be pre-agreed prior to their leave.	All Staff	Announcements made within 1 month of new babies or children. Staff with caring responsibilities for children agree that the School is a supportive environment in next staff survey. (80% agreement from men and women).
Organisation and Culture – Section 5.6									
ACTION POINT	**PRIORITY**	**OBJECTIVE**	**PREVIOUS (JUNO) ACTION AND PROGRESS**	**NEW ACTIONS**	**RATIONALE**	**RESPONSIBILITY**	**TIMELINE**	**TARGET GROUP**	**SUCCESS MEASURE**
5.6.1	1	Enhance School use of media/social me-		Create School Media Team.	This underpins several actions to do with role models and culture.	HoS Juno Committee (Rachael	Team convened and schedule of	All members of the School	Media Team created, with clear roles and duties.

		dia to facilitate actions on role modelling.			As well as engagement.	McLauchlan, Ian McLaren)	activity formalised by Feb 2019.		Team to run twitter campaign celebrating Technicians Make it Happen throughout 2018/19 – 2019/202 sessions.
5.6.2	2	Increased recognition of contributions to outreach, and enhanced (voluntary) reporting of activities	School members already undertake a broad range of outreach activities. (Long-standing School activity)	Highlight more outreach-related activities, of different scales, on the School News web pages.	Outreach is already highly prized, and represented in the WLM, but only as a total number of hours, and information on individual activities may be incomplete. Highlighting activities – and not only the major ones – should encourage more people to participate and to volunteer information.	New School Media Team	Publicise throughout the year- start from May 2019 onwards.	All members of the School	Enhanced range of outreach activities featured, verified by number and summary of contributions featured. Staff (male and female) respond positively – at least 80% in agreement that their outreach work is recognised and valued by the School.

5.6.3	1	Increased range of role models available, particularly for PhD students.	School web page and welcome brochure for visitors includes diverse images.	Review research group web pages for balanced image and news content and advise on improvements.	Prospective PhD students will often go straight to the research group site, so should also see representative images there.	New School Media Team	As above	As above	RGL web pages update, verified by Juno Committee. Evaluate success in next PRES of PGR students' response to visible role models – 70% positive response from all students and particularly female students.
5.6.4	1	As above	Explicit reminder to staff to suggest diverse Colloquium speakers has led to a substantial increase in the female fraction in the last 3 years.	A new Colloquium organiser is taking over in 2018/19 – ensure that he continues to promote this.	Unless monitored, there is a risk that this falls through the cracks in a handover.	Juno Committee chair (Sarah Croke) New colloquium organiser	Immediately, in preparation for 2018-19 colloquium series	As above	Email from new organiser continues to emphasise need for diversity. Continued diversity in Colloquium speakers, with at least 50% female speakers.

5.6.5	2	As above		Ask colloquium speakers to include a couple of slides about their career, including how they blended it with their personal life	Role models are not just about external or protected characteristics.	As above	As above	As above	Colloquium speakers respond to request 50% of presentations include such slides
5.6.7	1	As above	We have featured images of female scientists on the 2016/17/18 international days of women in science.	Include diverse images of inspiring scientists of all characteristics in our welcome screens in the rotating display on the screens in the Kelvin Building	This should not just be a one-off every year. The initiative would provide more role models throughout the year.	New School Media Team School members (to suggest people to feature)	May 2019 onwards, new image every 2 months	As above	Images are collected and appear on the screens every two months. Evaluate success in next PRES of PGR students' response to visible role models – 70% positive response from all students and particularly female students
5.6.8	1	Improved understanding of factors that discourage female PGRs from continuing with an academic career.	A 'visual research methods' project run with PGRs in summer 2017 revealed gendered differ-	Follow up in structured discussions with groups of PGR students, and informally at Women in Physics Group.	The preliminary work in 2017 revealed a surprising unwillingness among female students to discuss fe-	Juno Committee Chair (Sarah Croke) and PGR members	12 months	Postgraduate students	Discussion groups are held and a better understanding emerges, verified by report

			ences in willingness to discuss the under-representation of women in the field		male under-representation in physics. We would like to understand why, and foster an environment where these issues are freely discussed so that their importance is realised by all.				to the Juno Committee with clear findings, recommendations and actions to be taken.
5.6.9	1	Establish School's values as core to all members of the School, from the beginning of their time here.	Staff and PGR inductions include Equality and Diversity material but its existence in undergraduate inductions is inconsistent.	Revamp the undergraduate and postgraduate taught class inductions to ensure that the importance of equality and diversity is emphasised as central to our goals as a School	We would like all of our undergraduate students to feel included and supported, and to know that the School expects standards of behaviour, which they will also need to absorb for their professional careers. Occasionally we have incidents of graffiti etc, and we need to make known that this is unacceptable.	HoS Head of Teaching Committee Juno Committee Chair (Sarah Croke)	6 months (In time for start of new session 2018/19)	Undergraduate students	All Class Heads to deliver newly produced induction materials at start of 2018/19.
5.6.10	1	As above	The University has a staff and	Develop a guide on appropriate behaviour for the culture and learning	This will be a core part of our preparation for a Juno	HoS	18 months (in preparation for	All members of the School	New guide on appropriate

			student Code of Conduct.	environment we want to cultivate, and share across the University via CoSE and GESG	"Excellence application", as well as being core to further embedding equality and diversity principles in the School.	Juno Committee Chair (Sarah Croke) Juno Committee EDU Member (Katie Farrell) University Equality and Diversity Unit	Juno Excellence Application)		behaviour produced, published on School website. Staff and students know where to find it, verified by 85% positive response in next staff survey
5.6.11	2	In line with action to increase awareness of Dignity at Work and Study Policy, increase awareness of University Respect Advisers Network	We already have Equality and Diversity Officers, advertised to the School. We want to highlight opportunities to discuss potential issues with advisers outwith the School.	Run a feature in the School Newsletter on the Respect Advisers Network to highlight the opportunity staff have to seek advice from them.	As above	HoS Juno Committee Chair (Sarah Croke) Juno Committee Member (Andy Buckley)	Feature first run in semester 2 2018/19 session	All staff members of the School	85% male and female staff report awareness of Respect Advisers Network in next School staff survey.
5.6.12	1	Improve awareness of equality and diversity	School was early adopter of E&D online training (now compulsory) and has higher than 90%	Encourage uptake of Unconscious Bias training in the School (not currently required by the University) with the	As above	HoS; HoSA Chief Technician RGLs	2018-2020	All staff members of the School	90% completion across all staff groups and genders of Unconscious Bias Training.

			staff completion rate.	aim of attaining > 90% uptake by 2020					
5.6.13	1	Increase awareness of Employee Assistance Programme and Dignity at Work and Study Policy	Last University Staff Survey showed low awareness of these policies amongst School staff.	Include clear links to these policies and schemes in E&D section of School webpage	As above	School Media Team	May 2018 onwards	All staff members in the School	Improve awareness of these policies in both the next School survey and University survey to at least 85%- awareness in the last survey was 51-52%.