Department Application

Gold Application (silver awarded)

Name of institution	University of Nottingham	
Department	Physics	
Focus of department	STEMM	
Date of Gold application	April 2017	
Date of current Silver award	November 2013	
Institution Athena SWAN award	November 2012	Silver
Contact for application Must be based in the department	Penny Gowland	
Email	Penny.gowland@nottingham.ac.uk	
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Departmental website	www.nottingham.ac.uk/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.

24 April 2017

Athena SWAN Charter
Equality Challenge Unit
First Floor, Westminster Tower
3 Albert Embankment
London
SE1 7SP

Dear Madam/Sir,

As the head of the School of Physics and Astronomy at the University of Nottingham, I am very happy to endorse this application for a Departmental Athena SWAN Gold Award. My predecessors in this role placed diversity and equality high on their agenda for the development of the School, and I am seeking to build on their work, embedding the good practice that has already been introduced, and striving to take this approach onward to a deeper level.

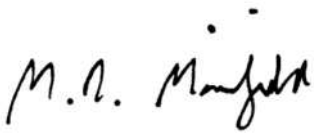
One both symbolic and practical element in raising the priority of diversity has been the inclusion of the chair of the School Diversity Committee in the School Operations Group that oversees at senior level the day-to-day running of the School, thus ensuring that problems in this area can be addressed promptly and new initiatives introduced without undue delay. We have also sought to enhance the profile of diversity by ensuring that it, along with health and safety, are the key foci of staff development activities in the School, and we have continued to press forward on family-friendly policies such as those related to flexible working.

Many challenges, of course, remain. Perhaps the least tractable is the low number of women studying physics at undergraduate level. In part this lies outside our immediate control given the low uptake of A-level Physics among girls, but we are glad to be beginning to address it through our beacon activity in YouTube outreach. The work of the Sixty Symbols channel in reaching beyond the usual audience for physics was recognized by the award of the Institute of Physics' Kelvin Medal, and, as described in this submission, we are building on this platform to enhance its impact on diversity. We particularly welcome the support of the Ogden Trust in helping us develop the Sixty Symbols Fellow post, for a postdoctoral researcher who will feature in the videos and further increase the profile of women at an early career stage as role models.

The experience that we have been able to establish in video engagement has put us in a strong position to develop new initiatives in this area. Having identified stress as a key issue at all levels from undergraduate to professorial, we are exploring the possibility of producing a set of case-study videos to help physicists understand its origins and develop more effective coping mechanisms, and we are delighted that the Institute of Physics has expressed a strong interest in joining us in developing this project.

All of this work is driven by the ultimate goal of embedding good practice in the School – and beyond – in all strands of equality and diversity, with the gender focus of Athena Swan in the vanguard.

Yours Faithfully



Michael Merrifield
Head of School
School of Physics & Astronomy
University of Nottingham

[504 words]

2. DESCRIPTION OF THE DEPARTMENT

The School of Physics and Astronomy (SoPA) is committed to providing a supportive and inclusive environment that enables all of our staff and students to perform at the highest possible level. We are the sixth largest Physics Department in the UK and came joint second in the latest Research Excellence Framework exercise. Diversity and inclusion have long been well embedded within our School culture and structures; we have had a formally constituted Diversity and Inclusion (D&I) Committee since 2007.

The School has grown significantly since the 2013 submission, now including:

Fig 2.1 Our MSci class 2016

- 735 undergraduate students; the increased popularity of the School has caused this to grow significantly since 2010, with a concurrent improvement in the A-Level tariff of our students.
- 130 postgraduate students.
- 80 research fellows.
- 55 members of academic staff.
- 6 members of Administrative, Professional and Managerial (APM) staff providing administrative, clerical, management and business development support.
- 26 (previously 46 for APM and TS) members of Technical Services (TS) staff providing specialist teaching and research technical support. This includes 2 people trained as apprentices, and 1 apprentice who will complete in September 2017.
- A dedicated undergraduate Teaching Utilities Manager, assisted by 4 Teaching Fellows, to enhance the support provided to undergraduate students in both laboratory and practical workshop sessions.

Our research-intensive School is organised into six groups: Astronomy; Cold Atoms and Quantum Optics; Condensed Matter Theory; Experimental Condensed Matter and Nanoscience; Magnetic Resonance Imaging; and Particle Theory. Most staff members are based within the main Physics Building which accommodates the teaching laboratories and seminar space, besides the research activity in condensed matter, nanoscience and cold atom physics. The Sir Peter Mansfield Imaging Centre houses medical imaging researchers, while the Centre for

Astronomy and Particle Theory houses our astronomy and particle theory groups. Academic staff numbers have grown across all research groups, including a number of proleptic appointments of personal fellowship holders.

Our grant portfolio is approximately £32M and more than 37% of our publications are in the top 10% of most cited publications worldwide. All research groups are involved in multiple national and international collaborations and we are part of both the Midlands Physics Alliance and White Rose Industrial Physics Academy. This outward looking, collaborative mind-set facilitates sharing of best practice and adoption of progressive management and leadership approaches.

Expansion has led us to develop a transparent and inclusive approach to governance, strategic planning, operational matters and development of staff and students. Staff are members of the Academic Staff Committee (chair: Head of School, HoS), Research Staff Committee (chair: HoS) or Support Staff Committee (chair: Head of Operations - HoOps). These together with the Learning Community Forum of students and staff (chair: HoS), provide channels for dialogue with the School Management Group (all professorial level staff, strategic responsibility) and the School Operations Group (operational responsibility including chair of D&I committee). In preparing this document we have recognised that it would be good practice to also establish a Teaching Staff Committee (Action-1 in Action Plan).

[493 words]

3. THE SELF-ASSESSMENT PROCESS

(i) A description of the Self-Assessment team

The Self-Assessment Team (SAT) was formed in 2014 with the ambition to achieve representation from across the whole School community. It consists of the following colleagues:

Keith Benedict: Senior Tutor. Responsible for the coordination of the school's tutorial system, including the training of personal tutors. Keith has been a member of the school since 1989 and has been Senior Tutor since 2007. He is married with two sons at University.	
Wendy Brennan: School Administrator. Wendy is PA to the HoS and fulfils many key administrative roles. Wendy has two grown up children.	
Penny Gowland: Chairs the SAT and the D&I Committee. Sits on the Faculty of Science D&I committee, and Gender Equality in Nottingham (GEN) group. Has worked in School for 27 years, husband is an academic in London; worked part time for 20 years.	
Nina Hatch: Lecturer. Has worked in the School for 7 years as a Senior Research Fellow and Lecturer. She sits on the research committee and the staff development committee. Her husband is an academic and she has a young son.	
Michael Merrifield: Head of School (HoS). Mike came in 1999 to help form a new astronomy group. As well as teaching & research, he has a strong commitment to outreach, helping to set up the Sixty Symbols YouTube channel. He juggles childcare responsibility with his wife, who also works here.	
John Owers-Bradley, Deputy Head of School (dHOS). John has been a member of staff for over 30 years. He is married with two grown up children.	

Mike Swift: School Exams Officer; Athena Swan Data Analyst since April 2016. Sits on the new Faculty Data Champions group.	
Denise Watt: First year teaching lab technician and member of the D&I committee responsible for communications.	
Shaun Beebe: Head of Operations (HoOps), Has worked in the School for 5 years. Also a Non-Executive Director for an NHS Clinical Commissioning Group and Leadership Consultant for Nottingham University Consultants.	

The formally constituted D&I Committee consists of the following people:

Penny Gowland, Shaun Beebe, Denise Watt, John Owers-Bradley and Mike Swift plus:

- Mobeen Ali; PhD student and former undergraduate in our School.
- Alfonso Aragon-Salamanca; Chair of Teaching Committee.
- Clare Burrage; Senior Research Fellow.
- Kathryn Murray; Research assistant,
- Meghan Grey; Associate Professor,
- Mohamed Henini; Professor of Physics and International Postgraduate Admissions Tutor and International Students Advisor.
- Oleg Makarovskiy; Assistant Professor and Disability Liaison Officer.
- Philip Moriarty; Professor and Undergraduate Admissions Tutor.

(ii) An account of the Self-Assessment process.

Our self-assessment has been carried out by the SAT, which monitors our progress according to the Athena Principles and previous submissions, with the following remit:

- Objectively review implementation of the 2013-2017 School Action Plan.
- Analyse staff and student data sets.
- Assess contextual and benchmarking data and information (including staff surveys, Institutional School Review, Institute of Physics Publications).
- Compile the 2017 submission and Action Plan.

Figure 3.2 Image of the most recent edition of our quarterly, whole school D&I committee newsletter

The SAT works synergistically with the D&I Committee, which seeks to resolve any strategic issues that may prevent members of the School from achieving their potential and has responsibility for delivery of the existing Action Plan.

The SAT has met twice a year since 2013 and, more recently, once a month whilst the D&I Committee meets quarterly. The D&I committee produces a quarterly newsletter which is circulated to all School members and is posted on notice boards and the internet (Figure 3.2). This newsletter was introduced in response to PA-S7[1] to increase the sense of collegiality within the School. It informs colleagues of upcoming events and initiatives; importantly, it also ensures that everyone is aware of the actions the School is taking to address diversity issues.

D&I has been a standing item on the agenda of the Academic Staff Committee for 8 years, providing another means to raise the profile of these issues in the School. We realise this is not the case for research, teaching only and support staff. We need to make D&I to be a standing item on the agenda of the Research Staff, Support Staff and Teaching Staff Committees (Action 2).

The SAT collected the data for this submission from the D&I committee, UoN's Human Resources Department and Academic Services Division. It also used qualitative information from University and School surveys

[1] This nomenclature is used to refer to items in the previous action plan

undertaken specifically for Athena Swan purposes in February and March 2017. The surveys addressed:

- School leadership and governance.
- Workload allocation and work / life balance and stress.
- Fairness, collegiality and inclusion.
- Career development, retention and progression.

82 members of staff responded to the School-only Survey and 88 responded to the University survey. The SAT reviewed all the data sets, together with the 2013 Action Plan, and good practice from other organizations to draft this document and the new Action Plan. Information was also gained from student focus groups and staff meetings. The wider D&I committee also reviewed the data and draft documentation and suggested activities aimed at addressing identified issues. The Nottingham Challenge and Support group and external reviewers also provided feedback on this submission. Membership of the D&I Committee and SAT and key roles including Data Analyst are all included in the School work load model.

(iii) Future of the Self-Assessment Team

Our established procedure is that the D&I committee has ongoing responsibility for championing diversity and inclusion within the School, whilst the SAT monitors progress against the current Athena Swan Action Plan. This will continue to be the case. The SAT acts through the HoS and D&I Committee; in future it should also formally report to the key School committees (Action 3) to further cement the delivery and ownership of relevant actions.

Our D&I committee will have primary responsibility for data monitoring since this is an integral activity; previously we have found it challenging to obtain data due to changes in central systems. Accordingly, we have recently identified a School Data Analyst who will join the D&I Committee and work closely with newly established Faculty and University data collection teams. This should become a permanent role within the School (Action 4).

The membership of both the SAT and the D&I committee will be refreshed to provide new perspectives where possible (Action 5).

[994 words]

4. A PICTURE OF THE DEPARTMENT

Currently we have 6/44 female and 20/137 male BME staff and these numbers are fairly constant. We need to investigate intersectoral effects and will aim to collect the relevant data in future (Action 6). We have a small number of transgender and gender neutral students in the school but we have not identified them in our data to maintain anonymity.

4.1. Student data

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

We have participated in a multidisciplinary foundation programme since 2008 which initially attracted a disproportionate number of women. The proportion of men increased when the course moved from a Science Foundation Programme into an Engineering and Physical Sciences Foundation Programme (Figure 4.1). This change apparently reduced the attractiveness of the course to women which needs to be better understood and addressed (Actions 7 and 8). However we have already started to widen our acceptance criteria, resulting in the 2016 cohort being 50% female, improving the gender balance.

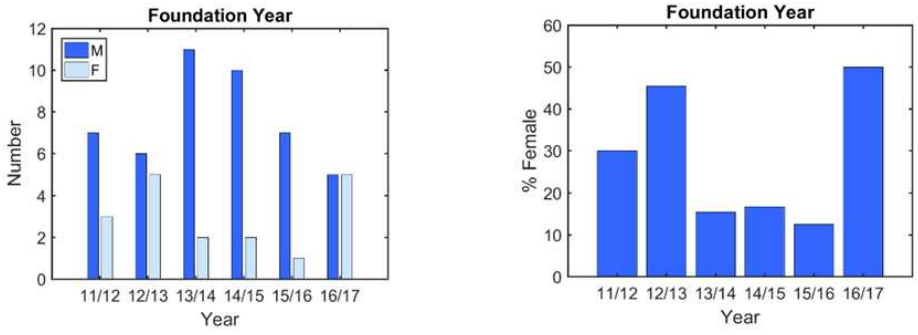


Fig 4.1 Number and percentage of male and female students in our Foundation programme each year.

(ii) Numbers of undergraduate students by gender

Figure 4.2 shows that approximately 17% of our whole undergraduate body is female, which compares unfavourably to the national benchmark statistics of 21.64% in 2014/15 (~19 to 21% for over the last 5 years). Figure 4.2a shows that approximately 20% of our applicants are female and that we routinely make disproportionately more offers to women than men. Our admissions procedures are gender blind so this potentially reflects the higher calibre of female applicants. Worryingly, in 2014 and 2015 relatively fewer women accepted our offer (Figure 4.2b), which subsequently led to a fall in the percentage of women amongst our undergraduates (Figure 4.2c/d). A review of 2016 data from UCAS indicated that in 2016 40% of our female conditional offer holders who declined us achieved A*A*A or better at a level compared to 28% of our male offer holders suggesting that at least part of this discrepancy relates

to more female applicants applying to Oxbridge. We will now routinely monitor decliners in detail (Action 9).

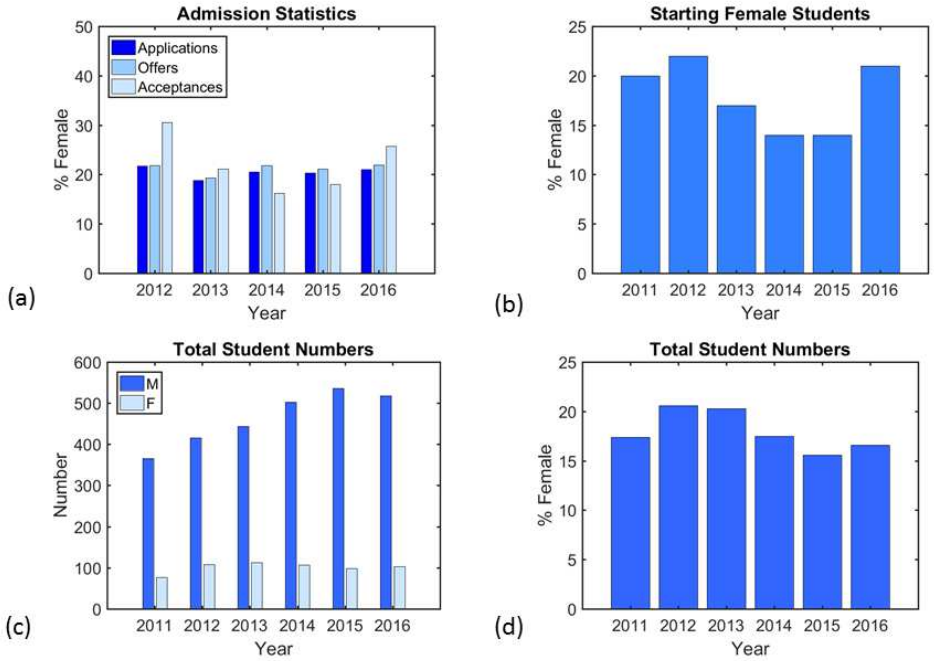


Figure 4.2 (a) Percentage of women at each stage of the application process, and (b) accepted into the school. (c) Total number and (d) percentage female undergraduate students in the school by year.

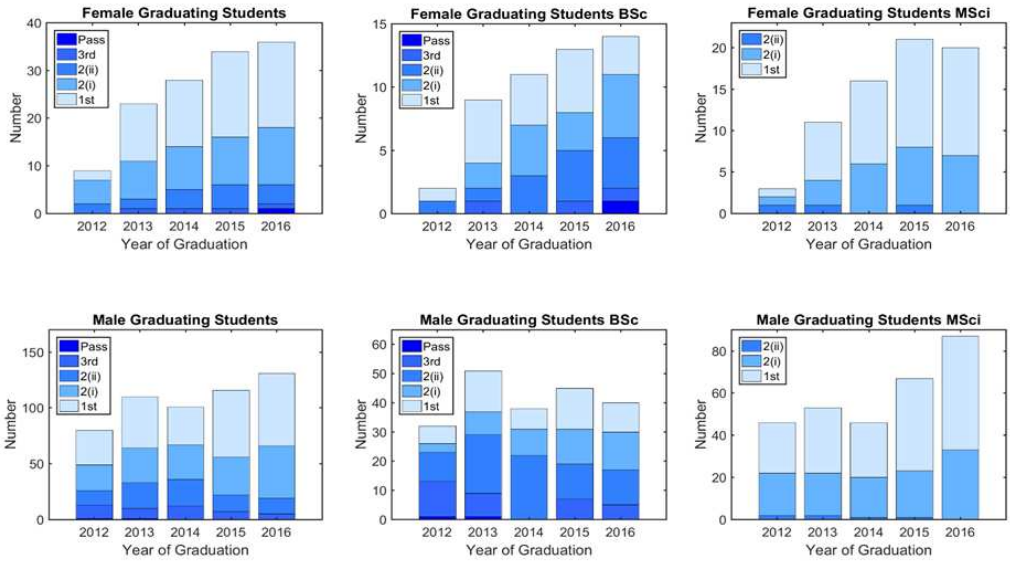


Figure 4.3 Number of female and male students graduating with each class of degree per year.

As a result of the decline in women accepting places, in 2015 we undertook a careful review our admissions procedures and marketing materials. As a result we added a woman to our admissions team and in response to our last Action Plan (S2) we improved the gender profile of

our YouTube '60 Symbols' videos (Section 5.7i). We believe that these measures may explain the evident improvement in 2016 so that 21% of the current first year is female (Table 4.1). This demonstrates the need for constant vigilance, and from now on we will undertake a Diversity and Inclusion impact assessment on any changes to outreach, marketing or admissions activities (Action 10).

Table 4.1 showing progression of each cohort of single-honours Physics students [Total/Number identified as female/other]

Cohort	Sept 2011	Sept 2012	Sept 2013	Sept 2014	Sept 2015	Sept 2016
Initial Intake PoE 1	143/28	166/36	171/27	166/23	176/24	176/39
Progress from Foundation Year	8/1	9/2	4/2	2/0	4/1	1/0
Transfers into Y1	1/1	1/0	0	3/1	5/0	7/0
Total incoming Y1	**152/30= 20%**	**176/38= 22%**	**175/29= 17%**	**171/24= 14%**	**185/25= 14%**	**184/39=21%**
Transfers out Y1	3/1	4/0	0	0	0	
Withdrawal in Y1	5/2	2/0	5/0	1/0	7/1	
Fails in Y1	4/1	4/1	1/1	0	2/0	
Remaining in Y1	0	0	3/0	3/1	2/0	
Progression to Y2	**140/26**	**166/37**	**166/28**	**167/23**	**174/24**	
Intake PoE 2	0	0	0	0		
Transfers into Y2	1/0	0	2/1	0		
Total incoming Y2	**141/26=18%**	**166/37=22%**	**168/29=17%**	**167/23=14%**		
Transfers out Y2	1/0	1/0	2/0	0		
UG Certificate	9/1	4/0	1/0	5/2		
Remaining in Y2	1/0	2/0	16/3	6/0		
Progression to Y3	**130/25**	**159/37**	**149/26**	**156/21**		
Transfers in Y3	1/0	0	5/0	3/0		
Total incoming Y3	**131/25= 19%**	**159/37= 23%**	**154/26= 17%**	**159/21=13%**		
Transfers out Y3	0	0	0			
Undergraduate Diploma	2/0	0	0			
Graduate Pass	1/0	1/1	1/0			
Graduate B.Sc.	40/6	50/13	42/7			
Remaining in Y3	4/0	12/4	4/0			
Progression to Y4 M.Sci.	**84/19=23%**	**96/19=20%**	**107/19=18%**			
Withdrawal in Y4 =B.Sc.	1/0	-	0			

Graduate M.Sci.	80/19	-	0			
Remaining in Y4	3/0	96/19	107/19			

In 2015 our problems were exacerbated when a higher fraction of women offer holders failed to achieve the required grades. We have adjusted our foundation year entry requirements to now be able to take these students, providing a second chance for young women with a passion for physics (Section 4.1i).

We have approximately one part time student per year. Students have opted for part-time status for a variety of reasons, most often health-related but also to allow time to train for sporting events at the very highest level.

Figure 4.3 shows that the number of female students graduating has increased significantly in recent years. Since the relatively low proportion of female undergraduates in the School may potentially skew feedback we receive from class-wide questionnaires, we undertake additional focus groups with female, BME and LBGTQ students to provide an extra mechanism to identify potential problems. An outcome from the last female-focused group was a change to how fourth year group work is managed to ensure female students are not relegated to organizational roles. In response to our last action plan (S6) we have also introduced peer mentoring for undergraduates; about one third of the peer mentors are female which allows them to act as positive role models for incoming female students. We also monitor progression carefully, and find (Table 4.1) that women are no more likely to drop out and are equally likely to carry on until the fourth year which is a key transition for them undertaking a PhD. Figure 4.3 shows that our female students are more likely to graduate with a first class degree than our male students for both BSc and MSci courses.

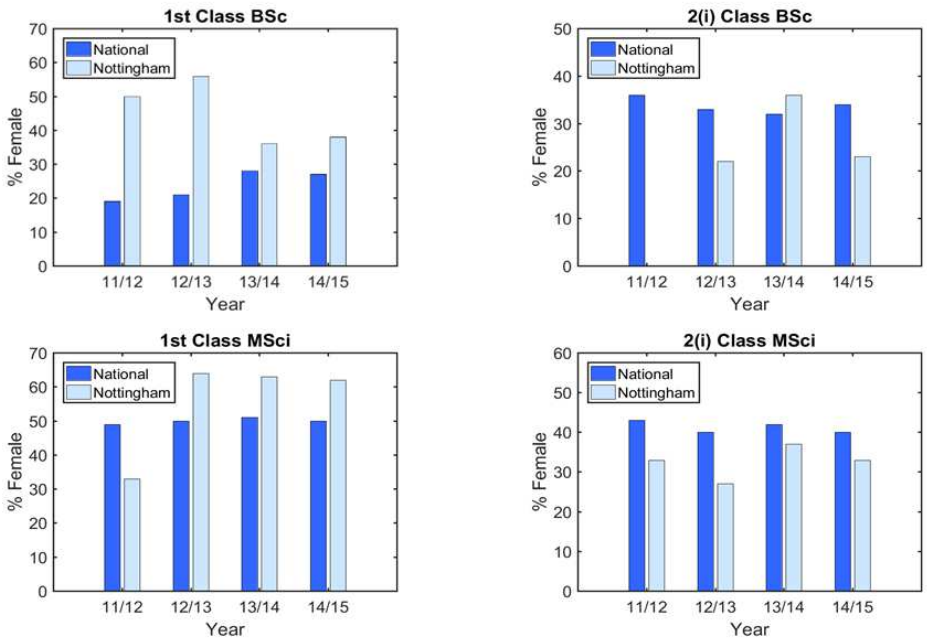


Figure 4.4 Percentage of 1st class and 2(i) degrees awarded for BSc and MSci students compared to national data

Figures 4.4 and 4.5 show that we are consistently above the national average on the % female students achieving a first or first and 2(i) Fractionally more women than men get 2i or better at BSc (virtually all students achieve this at MSci).

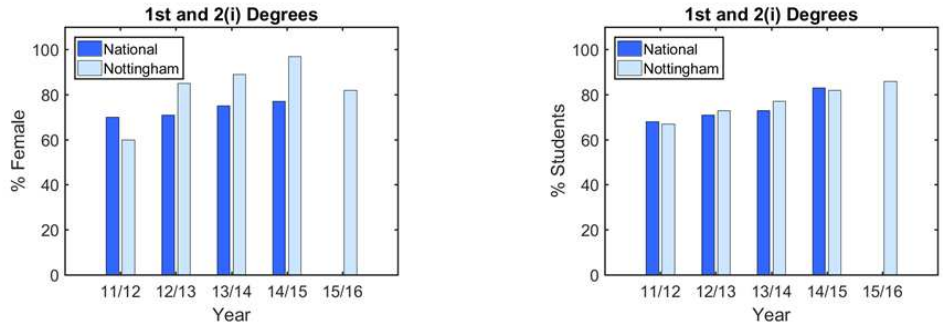


Figure 4.5 – Percentage of "good" degrees (1st class plus 2(i)) awarded for female and whole class graduating students compared to national data.

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

We have no taught postgraduate courses.

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

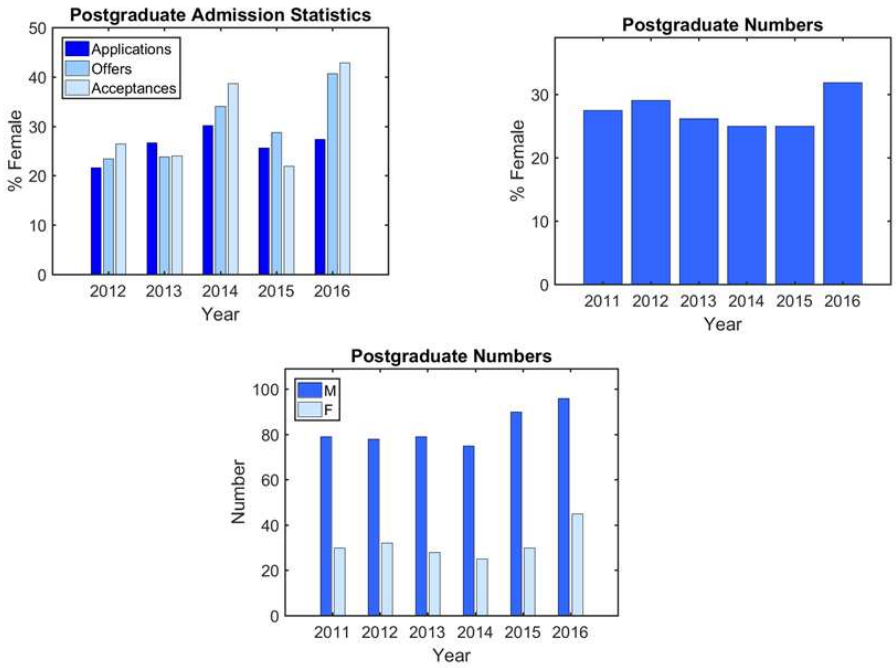


Figure 4.6 Number of male and female postgraduate students admitted per year.

The fraction of PhD applicants who are female is regularly higher than the UG population nationally or locally; we are more likely to make offers to these students, reflecting their high calibre. They are very likely to accept our offer (Figure 4.6), probably because we encourage applicants to spend time with current PhD students so that they can appreciate our inclusive and friendly environment (section 5). The variation in the fraction of the postgraduate body that is female is related to differences in completion rates of men and women. We aim to increase the number of PGR places while maintaining or improving the gender balance (Action-11).

We have one second year, part time PGR student, who is working in parallel with his studies.

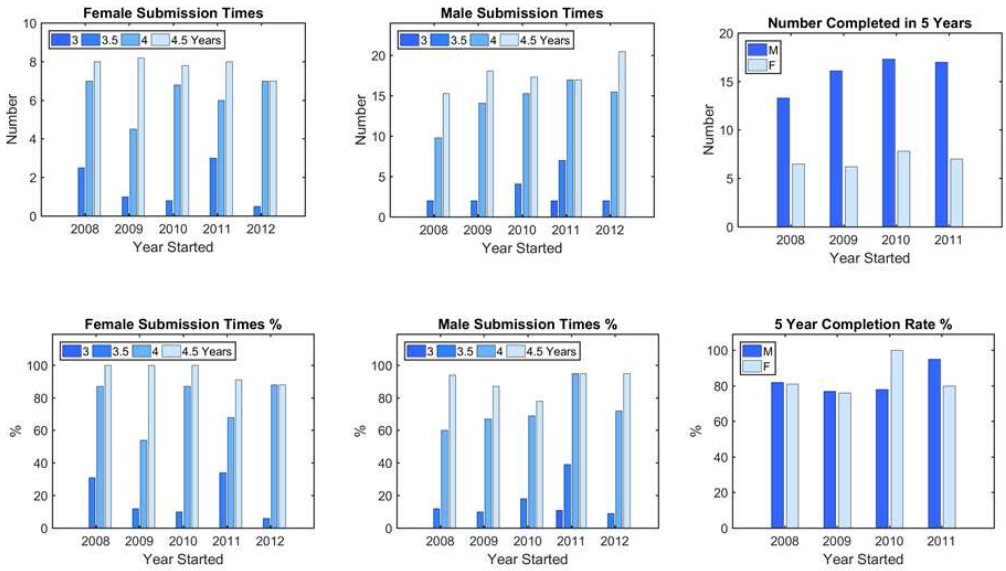


Figure 4.7 Submission times for men and women postgraduate students as raw numbers and percentages. Note completion times include time for the examination process plus time taken for any corrections which can exceed 6 months.

We have robust procedures for monitoring PhD progression, including regular formal meetings with supervisors which particularly benefit less confident students (who are more likely to be female and less likely to seek help proactively). Figure 4.7 shows women are more likely to complete their PhDs in four years. However, 20% of all students take longer than 5 years to complete, mainly due to the process of examination and corrections to theses. This is particularly likely to discourage female undergraduate students from PGR studies who may be considering future family life. Reducing the average time for completion will be a whole school priority, starting with staff training (Action 12).

(v) Progression pipeline between undergraduate and postgraduate student levels

In response to PA-S5, for the last 4 years we have had a strong emphasis on careers advice (including academic careers) to undergraduates from year 1 (Section 5.3iv). Our Masterclass programme actively exposes undergraduates from year 1 onwards to current research and we offer summer internships to undergraduates at the end of Years 2 & 3. Table 4.2 shows that 30% of our undergraduate students continue into PhD studies. Typically, 22% of students staying with us for PGR are female (compared to 20% of the undergraduate body).

Table 4.2 Progression of undergraduate students to postgraduate study. Left columns represent fraction of female and male students who progress to further study.

Academic year ending	% of female and male undergraduates progressing into postgraduate study		Number of undergraduate students staying at Nottingham	
	Female	Male	Female	Male
2013	34 %		2	7
2014	38 %		2	7
2015	37 %		3	10
2016	28 %	31 %	3	10

4.2 Academic and research staff data

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

Figure 4.8 shows that consistently approximately a quarter of our staff body is female.

We have worked hard to make it clear that senior management places great importance on an inclusive culture that values diversity; e.g. (Section 5) soliciting requests for flexible working. In our recent staff survey several people commented on the supportive environment and opportunity to work flexibly. In response to PA-C1 we improved career development and fellowship training for PGR students. These interventions have resulted in us having a very high fraction of female research assistants compared to the national average (Figure 4.9).

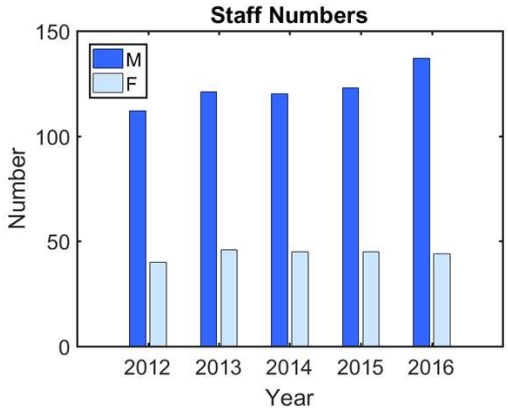


Figure 4.8 Total staff numbers by gender

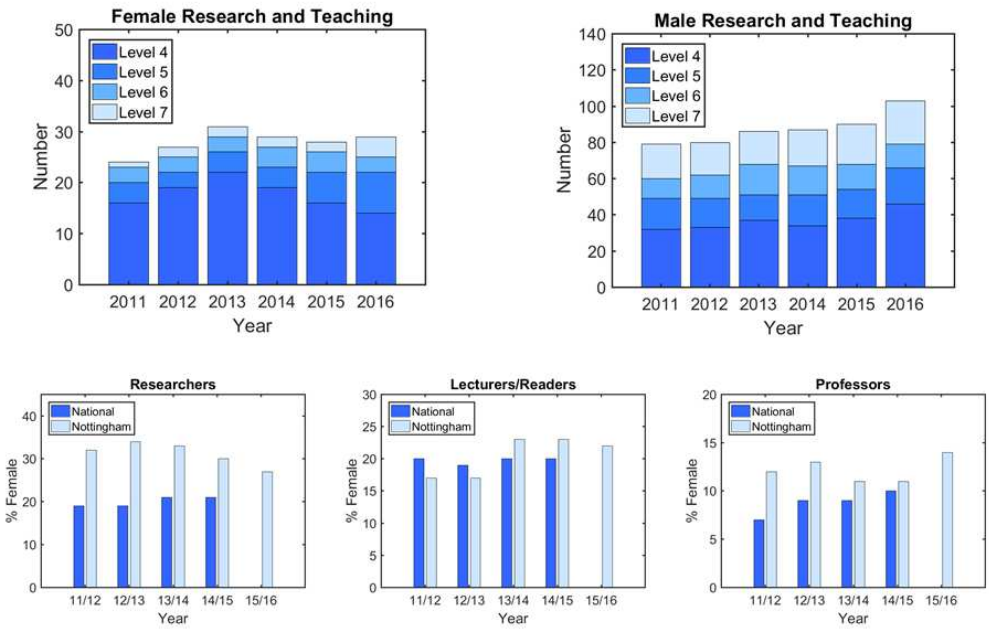


Figure 4.9 Absolute numbers of R&T staff at each grade for men and women separately and % females at each grade compared to national bench marking data

We have recently increased our number of level 5 and 6 female staff. We have done this via our excellent support for fellowship applications and fellowship holders as a result of our previous action plan PA-C3. The fraction of Research Only staff at level 5 who are women is greater than the fraction of level 4 (Table 4.3), reflecting our success in supporting staff through the promotion process within both Research Only and R&T roles.

Table 4.3: Showing numbers of Teaching only and Research only staff in the R&T family.

Grade	Teaching only		Research only	
	Female	Male	Female	Male
4		5	14	40
5			5	9
6				2
7				2

Importantly we now have 4 female and 23 male professors putting us consistently above national average on the % of female professors. This reflects the consistent and sustainable approach taken by the School leadership to supporting women in the work place since about 2000, critically enhanced by our Athena Swan action plans since 2010. Two professors opted for a research only role late in their career; no women are at that stage yet. One member of male staff (two since 2015) is on an elevated R&T7 grade.

We have part time male and female professors (both for child care reasons). We would like to increase the number of men taking advantage of part time opportunities, since as long as this is seen as really only being an option for women it will continue to be perceived as a disadvantage for women. We plan to undertake a programme of activities to increase

awareness of the potential for and value of flexible working amongst all staff (Action 13).

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

Figures 4.10 shows that historically relatively more women than men were on fixed term contracts, largely because relatively more women were on level 4 contacts (Figure 4.9) which are more likely to be fixed term. The fraction of women on permanent contracts has increased in the last three years, since we are good at retaining staff, and after 4 years all contracts are automatically made permanent by the University. Part time staff are more likely on permanent contracts than full time staff, probably because they tend to be older. Part time staff are also more likely to be female (Fig. 4.11).

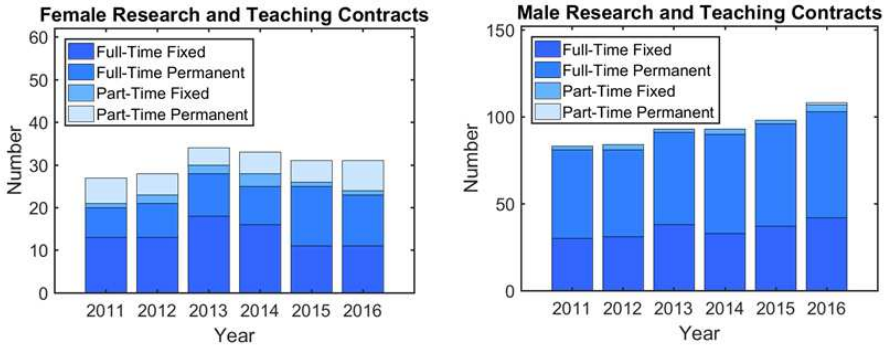


Figure 4.10 Female and male contracts illustrating numbers on part time/ full time and fixed/permanent contracts

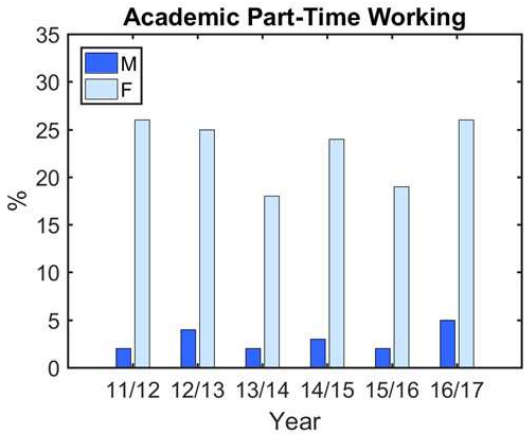


Figure 4.11 Female and male contracts illustrating percentage part time

The University and School have strict policies to support staff at the end of their contracts (see section 5.3iii).

The only R&T staff on zero hours contracts are PGR student teaching assistants or occasionally PG students at the end of their PhD whist looking for their first job (the latter being employed via Unitemps agency).

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

We are very good at retaining staff. In this period only one level 7 male member of academic staff has left to go to another institution. One member of teaching only staff has transferred to research staff.

4.3 Support staff data

(i) Support staff by grade and gender

Figure 4.12 shows disparity in the grades of male and female APM staff (one male will start at level 2 in May 2017). Virtually all APM staff applied directly into their current jobs and cannot be promoted, but must instead apply for a higher grade job or have their current role regraded. Scientific administrators (level 4 and above) have often come from research assistant posts which would increase the likelihood of them being male as the majority of research assistants in this field are male. We will review APM staff mentoring and staff development programmes with the aim of addressing this gender gap (Action 14).

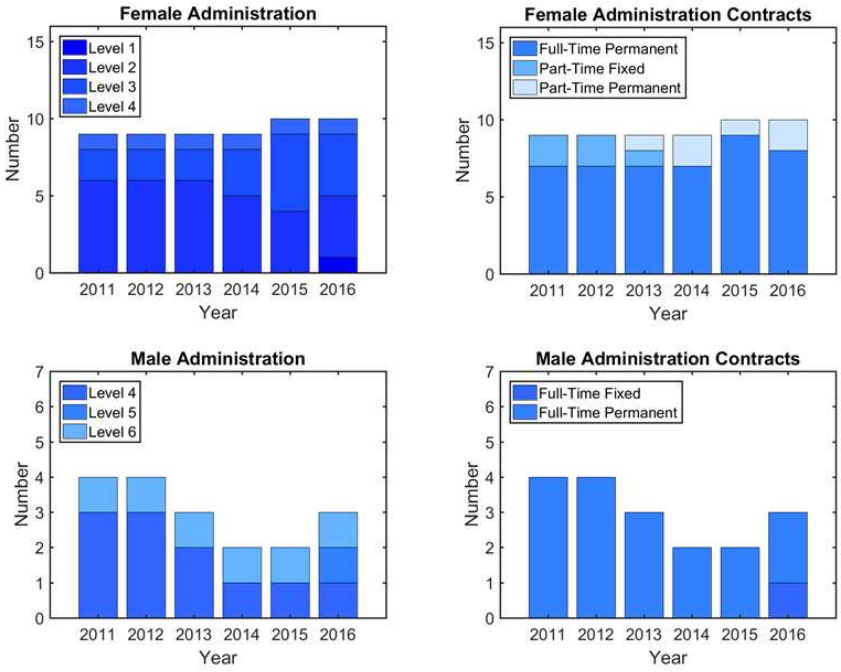


Figure 4.12 Female and male APM staff showing level of employment and also status of contract

Figure 4.13 shows that we have no women above level 3 in the technical job family, but the numbers are very low. Nonetheless we will also review our mentoring and staff development in for this group (Action 14).

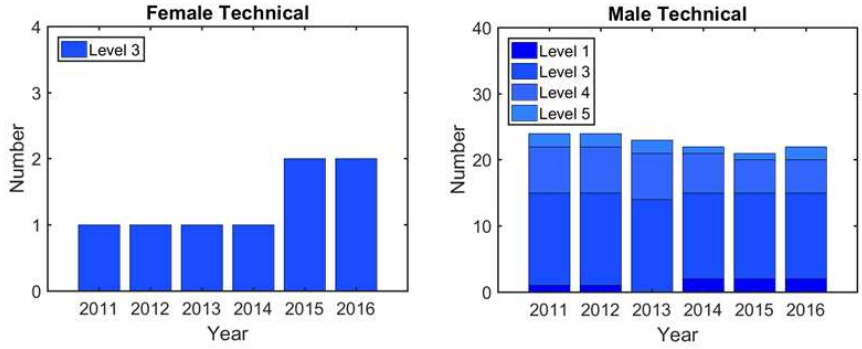


Figure 4.13 The number of staff at different grades in the technical job family

All technical and APM staff are on permanent contracts, except that we recently employed 1 woman for a year on a zero-hours contract for reception duties through the Unitemps agency.

(ii) Transition of staff between Administrative / Technical and R&T roles.

Two male members of staff have moved to R&T roles:

The first took on a new role of teaching laboratory manager, created to enrich the student experience in practical science. We are aware that many students (particularly female) lack confidence in this area and we have made significant efforts to provide increased support to guide students from structured learning at the start of the first year to self-guided learning and research in the third year.

The second moved into a new role created to support outreach and widening participation activities. This person is well known in our local schools and has worked with other staff to develop a range of activities for use in primary and secondary schools. Our School supports more outreach activities than any other School in the University, largely due to this post.

[1913 words]

5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

We try hard to provide a supportive environment for everyone. Any member of staff can approach their line manager, their group leader, the HoS or the HoOps for advice at any time. We have a dedicated tea room where staff and postgraduates meet informally twice a day.

Figure 5.1 Women working in the SPMIC on International Women's Day 2017. One cleaner, 10 PhD students, two professors, two secretaries, seven mothers (of whom 5 are physicists), 20 physicists. (Two scientists were busy doing experiments during this photography).

This culture is reflected in the results of our recent all-staff survey which revealed that 83% of people plan to continue working for the University in the long term, 78% of staff feel that their contributions to research are valued and 94% of staff feel their teaching contributions are valued; 73% of staff feel positive about pursuing a career in science with most concerns being related to administrative burden. We believe it is realistic to aim to raise all these figures to lie about 90% and this is the overall goal of our action plan.

5.1. Key career transition points: academic staff

(i) Recruitment

We advertise all posts on the University website, 'jobs.ac.uk' and within appropriate research communities, making it clear by statements on adverts that we value diversity, inclusion and equality. University procedures ensure that there is a trained interviewer on all recruitment

panels. Recruitment is managed via an online system and overseen by HoOps to ensure adherence to institutional policies. As a mature and successful school, we have only advertised 2 academic posts in the last 5 years. Table 5.1 summarizes the recruitment process for R&T jobs advertised in the last academic year, and shows a large fall off in women through the recruitment process at level 5. This Athena Swan submission has brought this to our attention, and it is now being urgently investigated in detail and will be monitored annually (Action 14A).

Potentially, such low turnover could skew our demographic and lead to stagnation. Our strategy to tackle this and ease researchers through the key transition from postdoctoral researcher to permanent academic position, has been to increase the number of personal fellowships held within the School.

Table 5:1. Data for staff recruitment for 2015/2016

	Level 3	Level 4	Level 5
Number of positions	2	53	5
Applicants total	47	602	80
Applicants % female	51%	17%	19%
Shortlisted total	13	130	18
Shortlisted % female	46%	19%	6%
Offered total	3	56	6
Offered % female	33%	16%	0%
Accepted total	2	49	4
Accepted % female	50%	16%	0%

Fellowships allow talented, young early career researchers (ECRs) to build a successful track record on which to establish an academic career. We have a strong history of hosting such fellows within our School, with the aim of mentoring the best through to a permanent academic position. Our targeted support to internal and external candidates for fellowships, including mentoring and training at each stage, has resulting in 7 staff (2 female) winning external fellowships from the STFC or Royal Society in the last 5 years. We have offered all of these Fellows proleptic lectureships.

In addition to externally funded fellowships, the University offers Nottingham Research Fellowships (NRF) and Anne McLaren Fellowships (AMFs). The AMF scheme, which has been running for more than 10 years, is targeted at outstanding female ECRs in science, technology, engineering and medicine with up to 4 years of postdoctoral experience (excluding career breaks). The NRF scheme is open to men and women with up to 6 years of postdoctoral experience (excluding career breaks) across all disciplines. Both currently offer 3 years of independent funding, including research costs and appropriate childcare costs.

Previously we strongly encouraged internal and external candidates to apply for these fellowships, providing support and advice through the process. Since 2012, 1 female member of staff was awarded an AMF and 3 male members of staff were awarded an NRF. These people remain in the School and three of them (1 female) now have academic appointments.

However, recently we had to temporarily withdraw from these schemes as we were unable to underwrite proleptic appointments for successful candidates. Happily, we are now able to re-join the scheme and hope to recruit several new fellows this year. As we re-enter this process we will make a particular effort to ensure women apply to both schemes (Action 15).

(ii) Induction

Induction is important for establishing the School's culture. All new members of staff and PGR students are given the School Induction Pack which addresses the Professional Development and Performance Review (PDPR- appraisal) process, mentoring, health and safety, equality and diversity, security, fire procedures, IT services, HR and payroll, stores and purchasing, annual leave and sickness reporting. New staff receive additional induction support from the University and their respective research group. Wherever possible we provide new staff with access to their computer account (and thus email and shared drives) before arrival to encourage early integration.

New members of academic staff are assigned a mentor, and in our staff survey 83% of eligible staff reported that mentoring was useful. Teaching duties ramp up over three years.

(iii) Promotion

The University has an annual promotion round for R&T staff, which is overseen and managed by the Human Resources Department. Initially all eligible staff are given guidance on the process and requirements and encouraged to apply. It is made clear that it is each individual's right to seek promotion without endorsement from line managers.

We recognise that less-confident staff (particularly women) may need to be prompted to apply for promotion so a previous action point (AP-17) required the HoS to contact staff who had not been recently promoted. However this meeting was considered potentially unsettling; we have now broadened the formal aim of the meeting to be to discuss progress in research and teaching (Action 16).

Applicants are advised (although not required) to discuss their decision to go forward for promotion and application material informally with the HoS, providing a useful check that all necessary conditions will be met before too much time has been invested. It also provides the first opportunity for feedback to help the applicant tune their case.

Subsequently, applicants submit their paperwork to the School Promotions Group, which is comprised of a cross-section of staff to allow a broad perspective on applications (female and male representatives with different research and teaching expertise). This group advises the candidate on the likelihood of success, provides feedback on how to strengthen the case, and suggests how applicants might improve their future prospects for promotion. It remains the applicant's decision as to whether the case goes forward.

The finalized applications are then submitted to a Faculty Promotions Group for moderation by senior staff from outside the School, and then to the University Promotions Committee for institution-level moderation and a final decision.

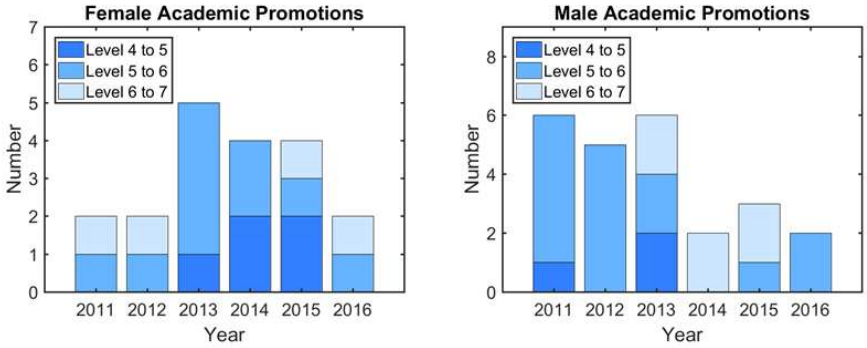


Figure 5.2 Showing promotions of female and male staff in recent years

These processes have made us very successful in supporting academic staff through the promotion process (figure 5.2). We received several positive comments on this in our recent staff survey (32 responses), including the following:

"Active support to secure promotion."

"The school was very supportive in my promotion application"

Notably, part time members of staff have been promoted since 2012: two female research assistants to level 5 and one female academic to level 7.

All these figures are consistent with the School demographics in terms of gender, part/full-time and career stage, but we continue to monitor them actively. We also strongly encourage engagement with the promotion process and related steps such as the career development within the annual PDPR.

A striking result of our recent staff survey in terms of staff ambition / progression is that 73% of academic respondents (n=63) considered themselves to either be currently in a leadership role or that they expected to be in such a position within the next 5 to 10 years. However, we have also identified that we need to develop a career development programme in place for Teaching only staff, since we have only recently had staff in such roles (none are currently female: Action 17).

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

For RAE2008 we returned all eligible staff (39 male and 7 female). For REF2014 we returned 46 out of 52 eligible male staff and all 11 eligible female staff. This split is consistent with the fraction of female academic staff. We stressed to all staff that inclusion was based on the overall submission strategy. Any member of staff who was not included had several one to one meetings with the HoS to discuss the process and outcome, and was given the opportunity to challenge the decision. They were subsequently given additional support particularly through PDPR.

5.2. Key career transition points: professional and support staff

Technical Services (TS) staff provide specialised technical and engineering support for research and teaching, whilst Administrative and Professional and Managerial (APM) Staff provide clerical services and specialist management, research and project support.

(i) Induction

Most induction processes are the same as for academic staff (section 5.1.ii). The line manager is responsible for role-related induction and the creation of a tailored training programme. We have just instigated a peer mentoring system for new staff, and have regular APM staff meetings.

(ii) Promotion

APM and TS staff are not eligible for promotion. Instead the University operates a re-grading system for job roles; 5 staff (2 female) have been regraded since 2013. However, to support the recruitment and retention of talented support staff we also provide role-related horizontal development opportunities where possible.

5.3. Career development: academic, research and teaching staff

(i) Training

We attach great importance to staff training at all levels, overseen by the Staff Development Committee. Figure 5.3 shows University-provided training sessions and together with Fig. 4.9 indicates that women are more likely to attend these than men.

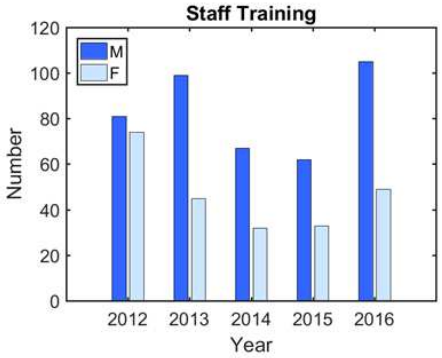


Figure 5.3 Number of staff attending training courses

Each year the School also delivers highly efficient, tailored training events. These bring staff together in a deliberately relaxed environment, where everyone is equal as a learner; we capitalize on this by generally linking these events to social activities, e.g. our 2015 Christmas Teaching Workshop event, focusing upon teaching innovation was attended by 60 staff (10 female).

We also provide University-led, workshops bespoke for our School; e.g. on Moodle or PDPR. Other relevant courses are also offered by the Graduate School and Professional Development unit.

The School holds annual away days for academic staff (attended by 65, including 11 females in 2016), offering a chance for staff to contribute to the development of School strategies and promoting a sense of collegiality. Similar away days are held for research staff (Section 5.3iii).

Our peer review of teaching programme involves all teaching staff (53 men, 13 females). Feedback is discussed between reviewers and reviewees, with the outcome summarised in a joint report given to the member of staff responsible for the programme. Staff are carefully selected to provide appropriate mentoring, mixing people across research groups, levels of seniority and age ranges. This programme is considered to be very valuable by participants and has been commended in various reviews of our School processes.

In 2012 the University initiated a 'Nottingham Research Leaders Programme' to support key academics in developing their leadership skills and a complementary Leadership Programme for ECRs run jointly with the University of Birmingham. We have encouraged staff to apply to both schemes and in the first year, two members of research staff (1 female) were selected for the ECR programme.

(ii) Appraisal/development review

The University of Nottingham has a compulsory PDPR appraisal system for all grades of staff. It ensures that individual staff:

- Are clear about their goals and expectations.
- Identify relevant development opportunities.
- Are provided with feedback on their performance, to motivate, bolster confidence and identify areas for improvement.
- Have the opportunity to discuss career development and are supported to meet their career aspirations.
- Are rewarded in line with University policy based on their overall contribution.

Staff can request their reviewer be changed (2 male staff members asked for a change in 2016). The reviewer and member of staff meet for up to an hour twice yearly to discuss performance against annual goals, (set by the School for academic staff). They also discuss training opportunities and career development with reviewers encouraged to discuss promotion when appropriate.

The reviewer scores the reviewee's work against the pre-agreed goals, according to whether they have met expectations, exceeded expectations or fallen short of expectations. The results are moderated across similar roles within the School. Staff who exceed expectations are rewarded financially; staff who fall short of expectation are offered remedial development opportunities.

(iii) Support given to academic, research and teaching staff for career progression

PDPR is not performed by a line manager, ensuring that research staff on fixed term contracts, are given impartial advice.

We run an annual, dedicated 'away day' for research staff, providing training on fellowship applications, career opportunities outside academia, and how to develop an independent research programme.

The University Graduate School also provides a range of courses in translatable skills that are available to all R&T staff, and staff can also attend undergraduate and postgraduate lectures courses where appropriate.

All staff are contacted 3 months before the end of their contract to arrange an exit interview with the HoOps covering career planning and CV development. They are put into the University of Nottingham redeployment pool and given the opportunity to be considered for any job offered by the University before external candidates.

As discussed (section 5.1iii) our School encourages R&T staff through the promotion process.

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

We have an improved careers provision in order that our students can compete with those from comparator institutions. We have recently put considerable emphasis on career advice for all students coordinated by three members of academic staff and the HoOps, supported by the University's careers advisors. Careers focused activity includes one-to-one meetings between tutors and tutees, a Physics-focused careers fair, arranged visits to other institutions' fairs and a Postgraduate recruitment event.

The University Careers Service runs dedicated Physics drop-in sessions where students are encouraged to make one-to-one appointments with careers staff for more detailed discussions.

We run events tailored to Physics students, to inform them of career opportunities and to support career decisions. We invite representatives of a wide range of sectors (including Higher Education) to meet and talk with undergraduate and postgraduate students at a 'Careers in Physics' afternoon at the start of each academic year. Students can also attend the 'White Rose Industrial Physics Academy' (WRIPA www.wripa.ac.uk) careers fair to engage with employers from a wide range of UK industries. Through WRIPA we have appointed an Industrial Placements Manager (female), with responsibility for managing industrial placements and studentships. With the student Physics society (PhySoc) early in the academic year we also deliver a talk explaining the benefits of summer placements and work experience.

In parallel, the University's Careers Service also provide a lunchtime talk series tailored to Physics students, to raise awareness of support available, discuss job opportunities for physicists including academic careers, and provide advice on career planning, CV- and application-writing. Students are also encouraged to attend the wide variety of activities organised by the University's careers service, including wider careers fairs and workshops.

Each year the School offers a small number of summer studentships giving undergraduate students with an interest in an academic career the opportunity to experience working in an academic research environment. The School also circulates a list of other summer studentships and academic work experience available in other institutions in the UK and abroad.

Final year students are also invited to attend a talk on postgraduate studies by academic staff, with the opportunity to discuss academic careers with the speaker after the session.

We run an annual one-day event for Year 3 students specifically designed to develop team working skills, organised by an external training company.

We have also recently introduced a 4 year MSci Physics with Science Education (QTS), (three male students elected to transfer into the first year of this course). We are introducing 4 and 5 year BSc and MSci Physics with Year in Industry courses and current first year students will be able to transfer into those. We will monitor the gender balance of these courses (Action 18).

(v) Support offered to those applying for research grants

Our success in promotions is partly because the HoS annually monitors staff grant submissions, allowing him to provide support when required. RCUK grants are internally peer reviewed, and the School has a dedicated Research Administration Manager who can help prepare impact case templates. From the March 2017 Staff Survey, one colleague remarked:

"I have been well supported by the School throughout my time here, particularly mentoring by senior colleagues that helped me identifying multiple funding opportunities and support my applications."

However, grant preparation and submission remains a somewhat private endeavour making it hard for some staff to contextualize success or failure, impacting most on people who are more isolated at work, including colleagues constrained by caring responsibilities, particularly women. We will seek to address this with formal training (Action 20) and feedback (Action 19).

(vi) Career development: professional and support staff training

New support staff are provided with a mentor agreed with their line manager. Training is available through the University central short course programme and other providers. Individual training needs are identified through PDPR and ongoing discussions with line managers. Funding for training is monitored by the Staff Development Committee; a wide range of specialist courses are provided to TS and APM to improve skills and leadership potential (Action-21).

We have invested heavily in our technical team, recognising the vital role it plays in undergraduate teaching and experimental research. Its demographics encouraged us to recruit three apprentices, supporting them through in-work development and college based learning (Higher National Diploma). We addressed the lack of a coherent University approach to the permanent recruitment of apprentices, leading to the appointment of two apprentices at the conclusion of their apprenticeships (the third is still in training). The University is now adopting a policy based on our approach. None of these apprentices are female, and we need to consider this when we next advertise a post (Action 22).

Teaching Technicians play an important role in undergraduate teaching and are supported to participate in the Associate Teacher or PGCHE programme as appropriate. We will find practical solutions to the fact that much of this training is provided at times when staff are committed to teaching (Action 23). Technical staff also play a vital role in research. We must ensure that their contribution is recognised to provide development opportunities and engender a more inclusive culture for everyone (Action 24).

(vii) Appraisal/development review

All support staff participate in PDPR. However support staff operate within identified teams and hierarchies and as such the review is normally undertaken by line managers with PDPR training.

5.4. Flexible working and managing career breaks

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

We aim to be very encouraging of staff taking maternity/adoption/shared parental leave, following University policies and guidance, which is widely

available on the University HR website and linked from the School D&I website. HR offers one-to-one support to discuss leave and pay arrangements, and uptake of advice has increased, particularly regarding Shared Parental Leave.

All staff meet with HR and with the HoS (R&T) or HoOps (APM and Technical) if they wish, who will work with them to do an impact assessment of maternity or adoption leave on career development and research activities if appropriate.

The HoOps organizes risk assessments and other adjustments required for pregnant employees. The HoS organizes cover arrangements for leave, supported by HR. If possible research staff funding is rescheduled to enable the contract to be extended.

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

The University's family-friendly policy is detailed on the HR webpages (accessible during leave and linked from the School D&I webpages) and includes details on how to apply for part time working.

All teaching activities involve a primary member of staff and a shadow, which ensures that it is generally straightforward to cover teaching activities during a period of extended leave (making sure that the shadow's other duties are reduced in turn).

If desired staff can take advantage of 'Keeping-in-Touch Days' and other forms of contact to maintain research activity during leave.

It is School policy that children can be brought into offices in exceptional circumstances, by prior arrangement with the HoS. Two such requests were approved in the February 2017 half term.

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

We strongly support University policy which offers a variety of routes back to work, including flexible-working and short term variations in workload allocation. Support mechanisms are communicated directly through the Information Booklet for Parents and University webpages. Guidelines for manager/staff discussions describe potential arrangements including job-share, term-time or part-time working. Staff are reminded of their right to use accrued annual leave to phase their return to work.

The School offers further support including a new policy of no teaching required during the first semester after return to work, temporarily reduced/flexible hours and provision for breast feeding when required.

However, some staff report finding it hard to re-engage when returning to work. In total seven members of academic staff have successfully returned from maternity leave in the last 25 years: we will ask these women to

mentor people returning to work after any period of extended leave for personal reasons (Action 25).

(iv) Maternity return rate

Since 2012 five academics and 3 members of research staff have returned from maternity leave (Figure 5.4). All research staff on short term contracts have returned to work.

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

Information about shared parental and adoption leave is available via the HR website, which is linked from the School D&I website, the HoOps can be approached for advice and an increasing number of staff have taken paternity leave (Figure 5.3a). However, we must ensure that all staff and students are aware of our policies to ensure that young scientists are aware of the advantages of an academic career for accommodating family commitments (Actions 26-28).

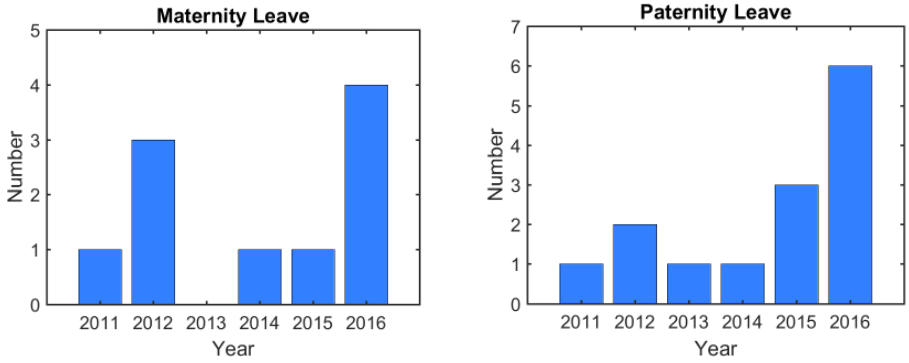


Figure 5.4 The number of people taking maternity and paternity leave in recent years.

(vi) Flexible working

Flexible working is embedded within our culture, the School having had an academic staff flexible working policy in place since 2008. This has been superseded by University policies on flexible working for academic staff and 'flexi-time' for APM and Technical staff; all available on the University HR website. From the recent School staff survey (March 2017, 82 responses), 34% of respondents reported that they had taken advantage of our approach to work flexibly at some point; 49% had been able to work at least 1 day from home over the preceding 12 month period.

We annually check commitments with staff so that the timetable can accommodate caring responsibilities. Wherever possible we also timetable our School meetings and committees to take account of caring responsibilities (S5.7v). From the School survey, 23% of staff reported that they had requested that either meetings or teaching duties were adjusted to accommodate caring responsibilities and had been supported by the School. We are also very alive to the potential for more of our colleagues to have to shoulder caring responsibilities for older relatives (38% of our survey respondents reported that they were either likely or very likely to

incur such responsibilities). Whilst flexible working is embraced within our culture we will continue to actively monitor trends for such requests.

Our shadowing system for teaching (S5.5ii) has the ambition to minimise work-related stress on staff who have to deal suddenly with family crises.

'As my children left home my mother got ill- I have been able to arrange work to allow me to take her to hospital,' (Female academic).

The rate of uptake of formal part-time working remains low (84% of our survey respondents had never worked part time). To encourage a culture that accepts it as the norm some senior staff recognised their part-time status on phone lists and email signatures. However we will undertake activities to increase awareness of the success of PT working for some families, using senior male and female staff as role models (Action 27 and 28).

We have one male member of staff who is part time who said:

"I went part time to solve child care issues, after discussion with school leaders, who gave positive and well thought out advice throughout the process. The School helped by agreeing what the change would involve in terms of what duties I would drop and so the transition was smooth. I didn't experience any issues or stigma and found the change very positive."

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

Over the last two decades 7 female staff have returned from maternity leave part time for varying periods; all have subsequently increased their hours.

Although most staff choose to return to full-time work, often for perfectly understandable reasons, we want to reinforce to colleagues that it is still possible for them to succeed academically whilst working part-time (Action 27 and 28).

Until recently the School ran a scheme to provide funding for child care if a member of staff attended a conference. This has recently been replaced by a University Scheme and additional Faculty of Science scheme; there have been two applications in the School since October 2016.

5.5. Supporting female students

We have long established systems for supporting female students. We pair female students in a tutorial group, consequently guaranteeing at least two female students in all laboratory and workshop groups. We have two identified female members of staff with whom female students can discuss problems; these colleagues are identified on the school website, the student undergraduate handbook and on posters identifying key members of staff that the D&I Committee have displayed around the School (Figure 5.5).

Figure 5.5 Poster identifying key staff who are available to support students

5.6. Organisation and culture

(i) Outreach activities

Too few girls take physics beyond the age of 16, this being one reason that we put considerable emphasis on outreach activities; we support more outreach activities than any other school in the University.

We regularly undertake activities aimed specifically at girls. For example we host the Year 10 IOP Girls Physics challenge and the Year 10 Girls Only Taster day. Two members of staff completed WISE training in April 2016.

The IOP 'Opening Doors' report showed that schools that encourage gender stereotyping fail both boys and girls. We plan to work with local schools to develop a 'Be yourself' event, where Year 8 girls and boys will separately attend events in both Psychology and Physics. Initially we will work with our partner schools but later we will target schools with particular issues with gender stereotyping as a future beacon activity (Action 42).

Table 5.2 Number of staff and students substantially involved in outreach in 2015-6

Grade	7	6	5	4	3	PG	UG
Male	2	2	1	6	2	14	11
Female	1	0	4	0	1	7	11

Table 5.2 shows that 31% of staff regularly delivering outreach activities are female (slightly higher than the fraction of women in the school). We encouraged women to become involved since we recognise the importance of role models. For R&T staff participation in outreach activities is included in the workload model. For support staff outreach activities are

included in their job description, with overtime pay available up to grade 3. Postgraduate students can receive 5 credits towards their PhD. Undergraduate students can accrue 10 credits towards the Nottingham Advantage award that recognises extracurricular activities.

(ii) Visibility of role models

It is important to have visible role models in a wide range of roles to counter standard stereotypes. To this end we consider role models across all areas of our work.

Table 5.3 Gender balance of seminar and colloquia speakers (number of women/total)

	2014/5	2015/6	2016/7 (so far)
School colloquia	Not available	2/8	0/5
Condensed Matter Theory	2/17	0/10	3/9
Cold Atoms		0/3	0/2
Nano and solid state		0/3	0/1
Particle Theory	Not available	10/39	7/25
Astronomy	9/22	11/24	7/17
SPMIC	7/16	9/29	5/22
IOP Physics centre	Not available	2/3	2/3
Faculty Public Lectures	6/12	4/13	3/8
Undergraduate masterclasses	Not available	1/6	2/7

School children and the general public: For public lectures approximately 1/3 of speakers are female (2/3 for the IOP Physics centre- Table 5.3). Women are well represented in our outreach activities (S5.6i).

Prospective students: Our admissions process relies on student ambassadors to talk to applicants and arrange tours. We particular encourage female and BME volunteers, and the percentage of women involved is just above the level in the school (Table 5.4). This year we have introduced a set of five short talks from undergraduate students during the UCAS visit days; 3/5 of these speakers are female.

Table 5.4 Students and Staff involved in open days.

		University open day June 2016	UCAS open days Autumn 2016
Student	Male	29	24
	Female	10	9
Staff	Male	17	8
	Female	5	3

Undergraduate students: We are able to expose our undergraduates to a significant number of female academics and postgraduate demonstrators. Our first year lab technician is an excellent female role model since many women particularly lack confidence in practical skills.

Staff and postgraduate students: Table 5.3 shows the gender balance of speakers for School Colloquia and for research group seminars. In some cases the gender balance is not in line with the fraction of women in our school, and this must be monitored earlier in each academic year (Action 29).

There are not many images of people on our website, but the generic images include women at a slightly higher proportion than the numbers within the school, but not so high as to be deemed patronising.

(iii) Beacon activities

We are proud to have built an inclusive environment in our School over the last two decades and we have also led the way within the University on many issues related to D&I; for example we had a flexible working policy before the wider University and developed the policy on the permanent recruitment and retention of technical apprentices.

We are the leading School within our institution for outreach activities, many of which actively emphasise and encourage girls to stay with Physics.

However our highest-profile initiative in this area over the last 8 years has involved sharing our passion for Physics with the general public across the world through the Sixty Symbols YouTube channel (and its companion channel Deep Sky Videos that focuses on astronomy). These sets of videos are made by internationally-renowned filmmaker Brady Haran in collaboration with a number of staff in the School. It features informal interviews with academics discussing a wide range of pieces of Physics and is designed both to educate and make the viewer feel engaged as a member of an academic community, with Brady as their proxy, asking questions from behind the camera. The channels are very successful; they have more than 800,000 subscribers and about 70 million total views, with individual videos typically receiving in excess of 100,000 views. This initiative's major contribution to outreach was recognized by the award of the 2016 Kelvin Medal by the Institute of Physics.

Because of the community aspect of the Sixty Symbols videos, there are a number of recurring presenters, and from the outset women staff have played key roles. In response to PA-S2, we have made a conscious effort to further increase the number women presenters and also the number of more junior staff involved to create clearer role models. In collaboration with the Ogden Trust, we have created and funded an early-career post explicitly to combine contributing to these videos with postdoctoral research. We were delighted when the successful applicant was female, joining the School as the Ogden Trust Sixty Symbols Fellow. We have

also included videos with a specific gender angle (while taking care not to alienate a science-focused audience), such as a piece based around a visit to her tomb in Nottinghamshire for Ada Lovelace Day and a video contribution to the debate on the badly-misjudged “Science: It’s a Girl Thing” video. Although it is always difficult to establish cause and effect in such matters unequivocally, there is evidence that this focus is at least partly responsible for the recent increase in our rate of female applications.

‘I'm a 15-year-old girl, who wants to study physics... and I think videos like the ones from sixty symbols etc are much more inspiring than those "stereotype ones".’ YouTube comments section of the video discussing “Science: It’s a Girl Thing.”

‘I have been encouraging both of my daughters...to get involved in science and technology. Your videos caught Flora's attention, and I'm trying to keep that interest going.’ E-mail to Sixty Symbols presenter Dr Meghan Gray.

We are very proud that all women in our school who have take maternity leave, have returned successfully. We will develop case studies of how men and women have dealt with being parents and physicists in our own institution and elsewhere, and advertise them initially via our D&I newsletter (Action 27), and then make these into a series of videos to be shared nationally and internationally (Action 28), building on our Sixty Symbols videos.

(iv) Culture

Engagement and a ‘Listening Culture’

‘This School has been highly supportive of me as a woman and mother for the last 20 years’ (Senior academic)

A decade ago we initiated flexible working, return to work and other related policies unilaterally before these were established by the University. However, we recognise that culture is a dynamic entity that requires active leadership, support and promotion. As mentioned previously, we actively seek feedback on an ongoing basis to assess our organisational culture and identify issues that need to be addressed by the School.

For the last three years we have issued a D&I newsletter as one means of encouraging and celebrating a supportive culture (Figure 3.2). As part of the 2017 Action Plan we will seek to better understand how effective this medium has been. (Action 33).

To ensure we are aware of the issues affecting our students we run a rolling programme of focus groups with female students, Lesbian, bisexual, gay, transgender, queer/questioning (LGBGTQ) students, and BME students, each repeated every two years. The Learning Community Forum also meets once a term providing a further conduit for students to fully engage with the life of the school. These have all provided invaluable

suggestions on how to increase inclusivity within the school [e.g. using gender neutral language in school materials].

The recent School survey indicated that 52% of people were happy in their job all the time and 40% some of the time.

We make it absolutely clear that we have a zero-tolerance policy to any behaviour that will make anyone feel marginalized, threatened or excluded. We have an on line D&I comments box (advertised in the D&I newsletter) where any member of the School can anonymously inform us about any issue that concerns them. This is outwardly facing so that anyone, not only current members of our school, can access it. We acknowledge the comment upon receipt and respond and take action urgently (usually within 48 hours). The responses are posted on the intranet, and a senior member of staff will also respond directly the relevant part of the school body. We now include fixed text in all invitations to speakers, in the D&I newsletter and the Academic Integrity document supplied to students to remind people of our policies in this area. We report any such incidents at the Academic staff committee, but must also report to the Support and Research staff committees (Action 34).

The University has a 'Dignity' policy addressing Harassment, Bullying & Victimisation, and a network of Dignity Advisors to support staff or students. This scheme is not widely known in our School and we have not yet appointed a formal Dignity Advisor (Action 35).

We also actively promote meetings for women or other underrepresented groups via the D&I Newsletter and Website. For the last two years we supported 4 students to attend the Conference for Undergraduate Women in Physics UK conference:

'I enjoyed interacting with so many cool women and it was useful to see such a range of career options' AC Undergraduate physics

'The passion of both the speakers and the other students at the conference was overwhelming.' SA Undergraduate physics

We are co-organizing and sponsoring the IUPAP International Conference on Women in Physics with the Universities of Birmingham and Warwick. Two women from the School are being supported to attend.

On alternate years we celebrate Ada Lovelace day and Black History month with mini workshops in the School; on the years we celebrate Black History Month we also hold a special Ada Lovelace Colloquium (Figure 5.6).

These events are attended by people from beyond our school and from the wider university community (Ada Lovelace day was covered on local NottsTV). For 2017 we are actively encouraging students to participate in organizing the event.

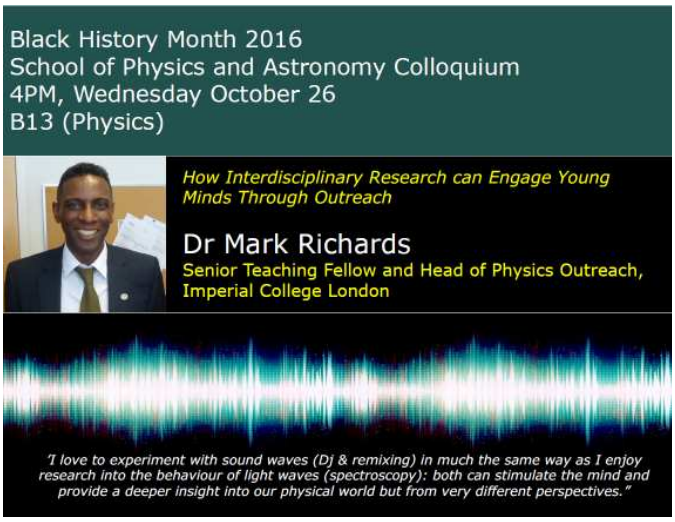


Figure 5.6 Posters for Ada Lovelace Day event in 2015 and Black History Month event in 2016.

Confidence

Underrepresented groups in scientific communities can often suffer from a lack of confidence; we have identified a lack of confidence in practical skills as a specific problem. Some students avoid practical activity when working in pairs, so we have introduced highly supported, individual working in the first year lab. We will monitor whether this is having an impact on later project choices (Action 36).

Celebrating success

It is important to gather good news from staff to celebrate success. We publish an annual School newsletter that is circulated to all applicants as well as current members of the school. We will increase the profile of our news feeds by pushing the information to foyer displays and profile key achievements on the D&I newsletter (Action 13 and 37).

Leadership

However, underpinning all these approaches to creating and maintaining an inclusive and supportive organisational culture needs to be the visible commitment from senior School leaders; 76% (n=82) of the survey respondents stated that they considered the School Management Group to understand the pressures and challenges they faced in their respective roles. 74% also stated they felt valued by School managers either some or all of the time.

(v) Timing of departmental meetings and social gatherings

To take account of the needs of part time staff and those with caring responsibilities, School committee meetings are either timetabled within the official 'School day' or are scheduled using Doodle poll.

As a School we have consistently striven to build a sense of inclusion and collegiality through social events, many of which have continued since our 2013 submission; 83% of our 2017 School survey respondents (n=82) said that felt part of an identifiable School community.

We endeavour to ensure that most of our social events, such as end of term parties and celebrations of success are held during the 'School day' to maximise the opportunities for all members of staff (and postgraduate students) to attend. The exceptions are our annual Pub Quiz, postgraduate poster evenings and undergraduate masterclasses which are aimed at students.

We have previously attempted to organize weekend family friendly events (PA-O9) but there appears to not be a strong appetite for such events and that they would be more appropriate at the level of a research group. Many of our research groups run regular social activities such as the SPMIC barbeque and the Astronomy Friday afternoon cakes. We will link the D&I committee closer to these research groups (Action 38).

As an alternative to family friendly events, we consider implementing a Health and Wellbeing programme. This will help build a group spirit, reduce stress, potentially increase thinking time and improve staff and student health.

(vi) HR policies

To ensure compliance with HR policies in the last two years all members of staff have undergone one or more training sessions related to Diversity and Inclusion (including unconscious bias, diversity and inclusion in teaching, disability and recruitment). There are formal courses of varying lengths and assessed, on-line courses and we organize bespoke versions of these courses for Physics staff. The HoOps has also undergone comprehensive training in this area and oversees recruitment processes. PDPR reviewers have all undergone appropriate training, and all interview panels must include someone with interview training.

(vii) Workload model

The School had a work load model (WLM) for more than 15 years which has recently been superseded by a University scheme including teaching, administration, PGR supervision, research and external activities. It reveals that on average female staff are allocated more time for research than male staff (Figure 5.7).

The WLM is considered at the annual PDPR. It is overseen by the dHOS who monitors everyone's duties and adjusts teaching loads to ensure equity across all staff, taking account of part time contracts. Major administrative roles are rotated within the school approximately every 5 years. Our staff survey probed views on the WLM and found some people did not understand how it worked and felt it was a paper exercise. A potential reason is that 40% of those surveyed were not academic staff so the WLM is not appropriate tool; they are allocated the standard working hours.

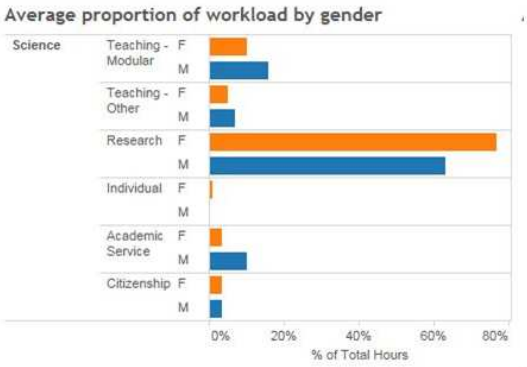


Figure 5.7 Workload data for levels 4 to 7 staff

However, we will ask the dHOS to further explain the WLM to research and academic staff meetings (Action 40) to promote transparency.

Importantly, there is senior management (HoS and dHOS) oversight of vacations and the academic workload. Our HoS is concerned about a long hours' culture in some research groups and he has just introduced an electronic method of monitoring absences and holiday leave with the goal of ensuring everyone takes appropriate leave. This new system is professionally administered by support staff members and is subject to Faculty moderation and oversight.

The dHoS is in a position to be able to discuss time management and stress when needed.

(viii) Representation of men and women on committees

Table 5.4 showing the number of staff in each committee 2015-16. The committees highlighted in blue are key decision making committees, or dealing with issues of diversity and inclusion or providing role models for junior scientists.

	R&T M	R&T F	APM M	APM F	Student M	Student F	% female (inc. student)
Accreditation Group	2	1					33
CMP	11	1					8
Diversity	8	4	1	1	1		35 (33)
Exams Group	5			1			17
Financial Ops	2		1				0
IT Strategy	4		3	1			12
Laboratory	5	1	1				14

Learning Community (staff and students) Forum	9	1	1		13	6	29 (9)
MP Board	7	1			1	1	20
Outreach	2	2	3	1	1		28 (33)
Promotions group	6	3					33
Post graduate	7	3					30
Research Committee	8	3	2				23
Research Operations Group	6	1	2				11
Safety	5		5	1			9
School Management Group (level 7 staff only)	22	3	1				11
School Operations Group	6	1	1				12
Safety Ops	6		6		1		0
Staff Dev	5	1	1	1			25
Teaching	12	3		1		1	25 (23)
Teaching Operational Group	6	1		1			25

We ensure that female members of staff are present and actively participate in decision-making / executive committees including the School Management Group and its subset, the School Operations Group. Building on the 'Leadership' theme, we recognise the need to embed diversity and inclusion in our governance structures and processes. All committee members are actively encouraged to challenge decisions / proposals where they believe that D&I issues have not been appropriately considered or addressed.

Membership of our committees is largely determined by roles within the School which are allocated by the HoS, dHoS and Senior Tutor taking into account staff interests, the need for appropriate representation on committees, the need for positive role models in some situations and the need for gender balance without overloading women. Committee membership is monitored with respect to these issues by the Diversity Committee annually.

The D&I committee Chair sits on the School Operational Group, which is the primary operational decision making body of the School. All committees' terms of reference refer to the need to ensure that all activities are consistent with the School's goals of increasing inclusion and diversity.

(ix) Participation on influential external committees

We are keen that all members of our School participate actively in the wider scientific community. Participation in external committees is taken account of in the WLM, up to a certain limit to avoid senior staff avoiding other responsibilities.

The School has a policy of actively putting forward staff for external awards every year (this process being overseen by the most senior academic in the school). We do not have a similar process for committees (Action 41).

Seven female staff reported an average of 110 hrs of external activity, 20 male staff reported an average of 67 hours of external activity. We suspect that this reflects the need for female representation on external committees. Although committee work can raise people's profiles it can also limit time for research, so we are careful to only select women for roles when it is important to do so, e.g in key decision making roles or when role models are required (Action 42).

[6904 words]

6. FURTHER INFORMATION

In common with most UK HE institutions, we have recently noticed a significant increase in stress levels amongst our student body. We do not know the causes of this but we suggest that the GCSE and A level assessment processes, tuition fees, an increased number of students with reported learning difficulties (resulting from a welcome increased provision for them within the educational system) and geopolitical events may all contribute. An unfortunate consequence of this situation is that staff with responsibility for student welfare are also becoming stressed.

Similarly, there is considerable stress amongst academic staff, due to increasing demands on their time, particularly for administrative work.

We have a record of students with learning difficulties and extenuating circumstances but confidentiality issues mean that we do not have an accurate measure of how many staff are suffering from inappropriate stress or mental illness.

Inappropriate stress is potentially a gender issue. Anecdotally, relatively more female students seem to report the effects of stress, although male students may be failing to ask for help when they need it. Furthermore, if students are stressed or observe that staff are stressed or appear to have an unappealing work life balance, then they are unlikely to want to follow a career in academia and this is likely to particularly affect women who are more likely to be considering how they will organize family life. Finally, when members of the school are highly stressed they are less likely to be able to find the resources to provide a supportive environment for colleagues. The D&I committee has recently recognised stress as a major issue. We will undertake a professional survey to allow us to assess the amount of stress and mental illness in the school (Action 30).

We will review all teaching to determine how to increase resilience amongst students (Action 31), to teach them that it is not possible to be perfect. Sport offers a way to tackle stress and provide time to think. We will instigate a voluntary health and wellbeing programme amongst staff and students (see section 5.7vi and Action 39).

We will capitalize on the high profile and experience that we already have in producing short videos through the Sixty Symbols channel, to make a real contribution to addressing concerns about stress among physicists. We believe that YouTube is an ideal point of entry into thinking about this issue, because it does not require any public declaration on the part of the enquirer, but the nature of the videos we make have a very personal flavour and make it clear that this is an issue that affects ordinary people. We therefore propose making a series of videos featuring interviews with physicists at a range of points in their careers, discussing how stress has affected them, and what mechanisms they have adopted to cope. We are currently in discussion with mental health experts to develop this programme, and the Institute of Physics has expressed a strong interest in

supporting this initiative and distributing it as a new national-level beacon activity.

[505 words]

ACTION PLAN

Action Number	Planned Action/Objective	Rationale	Key outputs and milestones	Timeframe		Action Owner	Success criteria and outcome
1	Establish a Teaching Staff Committee to provide support to and enable feedback from the Teaching Only staff	This new group of staff do not yet have the same support mechanisms as other staff.	Committee formed	June 2017	Continuing	dHoS	Regular meetings with minutes on School intranet
2	D&I to be a standing item on the agenda of the Research Staff, Support Staff and Teaching Staff Committees	To ensure all groups of staff are equally aware of D&I issues	Instructions given to committee chairs to revise standard operating procedures for new academic year	Oct 2017	Continuing	dHoS	Visible on minutes that are posted on intranet. Audit by dHoS and HoOPS
3	SAT will update the School Operations Group and Academic, Research and Support Staff Committees in relation to achievements	To ensure progress against this action plan	SAT to write regular reports detailing progress against this action plan, and reporting any trends or	Oct 2017	Continuing	Chair of SAT	Biannual reports attached to relevant committee meetings

	against key milestones		changes identified in the data.				
4	School to designate a permanent role of Data Analyst, with responsibility to update and augment the datasets presented within this document annually. The role will be recognized in the work load model and the person will sit on both the SAT and the D&I committee.	To improve our ability to review data in a timely fashion	Data analyst identified at time of work allocation for 2017-8 academic year.	Oct 2017	Continuing	HoS	Role listed on School intranet and recognised commitment on work load model
5	Half of the membership of the D&I committee and SAT to be refreshed in 2017 and every three years thereafter. SAT to be reduced in size and include only the HOS, chair of D&I committee, the	To ensure sustainability of the SAT and to bring fresh ideas to the SAT	New members identified at time of work allocation for 2017-8 academic year.	Oct 2017	Continuing	HoS	Membership listed on the intranet to show current and historical committee membership

	School Data Analyst, as well as a member of support staff, and a postgraduate and undergraduate student representative who are not members of the D&I committee						
6	Determine a method of collecting BaME data for key transition points locally if it is not collected centrally.	To monitor BaME and also investigate intersectionality issues	Sources of BaME data identified or developed	Oct 2018	Continuing	Data analyst	BaME data regularly reported to Diversity & Inclusion Committee
7	Increase the conspicuity of Physics within the Foundation Programme marketing materials.	To increase number of women on foundation year and hence increase number of women studying physics in the long run	Revised marketing strategy created	Oct 2017	September 2020	Head of foundation year	New marketing materials for foundation year

8	Investigate the possibility of a dedicated Physical Sciences Foundation Year.	To increase number of women on foundation year and hence increase number of women studying Physics in the long run	Report produced including market research	June 2017	June 2018	Teaching Committee	Decision reached by Teaching Committee with input from D&I Committee
9	Monitor the students who decline us in detail for the next 3 years.	To increase the number of women studying undergraduate Physics	A method developed for analysing quantitative data from UCAS Data presented to D&I committee annually	June 2017	June 2020	Admissions tutor	Results of analysis in D&I Committee minutes for the January meeting
10	Review all UCAS and marketing processes every year, and undertake a Diversity and Equality impact assessment on all changes caused by	To increase the fraction of women in our class.	Diversity and Equality impact to be produced	June 2017	June 2020	Admissions Tutor	Increase the number of women in the class to routinely be above the national average (>~20%)

	current UoN reorganization						
11	Increase the number of PGR places while maintaining or improving the gender balance.	Support the transition of female U/Gs through to academic positions (the pipeline effect)	Number of PGR places	June 2017	June 2020	DHoS & Postgraduate Admissions Tutor	An additional 10% PGR places per year (~3 per year)
12	Provide staff training to focus on PhD completion rate	5 year completion rate could discourage some women from starting a PhD	Training programme created and instigated	Oct 2017	October 2019	Staff Training and Development Officer	Training of all academic staff completed. PhD completion rate improved so that 95% students complete within 5 years
13	Celebrate the achievements of part time staff to encourage others to consider the opportunity to work part time. We will initially run interviews	Flexible working is a major advantage of academia for those with childcare responsibilities. We need to ensure women	Designate a person to take responsibility for D&I website and newsletter, and collecting good news stories	June 2017	Continuing	D&I Committee chair takes overall responsibility	Case studies to be reported on website and in the D&I newsletter

	with members of staff in the newsletter.	are aware of this possibility and that it is consistent with high achievement					
14	Undertake a full review of APM and Technical staff mentoring and career development opportunities	All staff should be able to fulfill their potential.	Review written	June 2017	June 2018	HoOps	100% of new staff to be appointed a mentor
14A	Complete review of the recruitment process for level 5 staff in Table 5.1 D&I committee to review data presented in Table 5.1 annually	Numbers are small and only for one year but at face value there would appear to be a bias against female candidates for level 5 posts, even at shortlisting.	Review completed. Unconscious bias training renewed for all staff.	May 2017	Continuing	Chair D&I	On average, women to be (i) shortlisted (ii) recruited at the same rate at which they apply for posts to minimise attrition
15	Ensure women are actively encouraged to apply for UoN fellowship schemes	All staff should be able to fulfil their potential	Fellowship training arranged prior to next November 2017 UoN deadline and	June 2017	Continuing	HoS	30% of fellowship applicants to be female

			advertised to male and female PDRAs via D&I newsletter				
16	HoS will actively contact all staff who have not been promoted in the last 5 years to discuss the progress of their research and teaching, (rather than directly discussion their career progression).	To ensure that staff understand when if they are ready to apply for promotion (which is likely to affect women more) and to check if anything is hindering those who are not.	Meetings arranged	Oct 2017	Continuing	HoS	Meetings arranged and updates in the respective staff PDPRs
17	Develop a realistic and meaningful career development pathway for teaching only staff, within HEFCE rules.	All staff need to be able to envisage career development. Although it is not the case at the moment in our School, generally women are likely to be disproportionately	Encouragement of the University to undertake this piece of work, but the School will in the meantime identify teaching focused staff and develop the agenda through the soon-to--be-established	Oct 2017	Oct 2019	dHoS with Staff Training and Development Officer	Published school policy and procedure for teaching pathway development

		represented in this group.	Teaching Staff Committee				
18	Monitor gender balance of the uptake of Physics with Science Education (QTS) or Physics with Year in Industry courses.	Ensure we are offering attractive career opportunities to male and female students	Data collected	Oct 2017	Continuing	Data Analysis	Data presented to D&I Committee
19	At each academic staff meeting report the statistics on the number of grants submitted broken down to a usefully informative level and celebrate success of grants that have been funded.	Allow staff to have a reasonable understanding of success rates and expectations upon them	Data collected through the new University Research Management system	Oct 2017	Continuing	Director of Research	Information on minutes of Academic staff meetings. Individual staff data to be available through the Academic Profile Tool (individual level performance dashboard)
20	Run an annual, brief grant writing training exercise to raise the	Allow staff to have a reasonable understanding of success rates	Training event delivered	May 2018	Continuing	Director of Research	Increase in grants submitted by both men and women.

	profile of grant writing in the school	and expectations upon them.					Ambition of at least 1 application per staff member per year
21	To ensure that staff at all levels are encouraged and supported to undertake training relevant to personal and professional development	To support staff to perform to the best of their abilities	Number of staff accessing University course programme and School training events	June 2017	Continuing	Chair of Staff Development Committee	100% of eligible staff accessing programme
22	Ensure that the apprentice programme is advertised in a way that will be attractive to girls	We need to increase the number of women technicians directly (and also indicate to the wider public that such jobs are open to women)	Focus groups with female technical staff and some first year undergraduates used to review advertising material	July 2017	Dec 2017	HoOps	30% of applicants for apprentice scheme to be female
23	Arrange a cover programme to ensure all Teaching Technicians	Ensure proper development of this group of support staff (It	Cover plan arranged between labs, taking account of the fact	July 2017	Continuing	Teaching laboratory manager	Cover plan arranged. 100%

	complete Associate Teacher Programme training with 2 years	has the potential to be dominated by females, although it currently is not).	that we now have academic staff and teaching fellows in the labs each day.				completion rate for eligible staff
24	Encourage academic staff to ensure support staff are acknowledged or made co-authors in papers where possible	Ensure proper development of this group of support staff	Bring a list of papers including support staff to an academic staff meeting. Each research group undertake a review of recent papers to identify where staff might have been included	October 2017	Continuing	HoS	Support staff listed as authors on some papers in each year. Clear focus on experiment-based research studies
25	Introduce a voluntary mentoring scheme for mothers on maternity leave and when returning to work, pairing them with a mother who has had a similar experience in the past.	To support women at a difficult transition time and ensure women are able to achieve their potential at this time	Mentoring scheme designed, advertised via the website and then implemented via the HOS	July 2017	Continuing	HoS	100% of mothers to have been offered mentoring, 80% of them to have taken it up

26	Advertise HR policies on all D&I newsletters and the D&I webpages	To ensure all staff are aware of what is available to them.	Web page edited	June 2017	Continuing	Chair D&I committee	Web page showing policies
27	Present case studies from our School and elsewhere of academics who have successfully taken extended periods of maternity leave in D&I newsletter.	To support staff to adopt flexible working which many people find important in ensuring work life balance. This is important for retention of workforce, particular women.	Case studies created for alternate D&I newsletters	June 2017	Continuing	Chair D&I committee	Case studies visible on website
28	Cont from (27) ...Ultimately collate these and share them publicly	To support staff to adopt flexible working which many people find important in ensuring work life balance. This is important for retention of workforce, particular women.	And then posted on D&I website				

29	D&I Committee to ask for seminar programmes and request research groups reconsider programmes if low number of women speakers are planned.	To ensure sufficient female role models and to ensure appropriate exposure of women's work	Seminar programmes provided and discussions noted in D&I committee minutes	June 2017	June 2020	Chair D&I committee, School Colloquia organiser	Absolute number and % of female speakers. Ratio of F : M speakers. Ambition to have 50% of all speakers female (~29% in 16/17
30	Undertake a professional survey to allow us to assess the perceived level of work-related stress in the School.	Stress prevents people fulfilling their potential, will make staff less willing to support each other and is likely to discourage younger people (and in particular women) from pursuing a career in science)	Appropriate agency contacted and survey designed			dHoS	Survey completed and used to devise a Stress Impact Assessment for key changes to School activities. Will provide a baseline for remedial actions in the next Action Plan
31	Review teaching and assessment programmes to	Stress prevents people fulfilling their potential,	Identify good practice in this area and review	June 2017	June 2019	dHoS & Senior Tutor	Reduce number of extenuating circumstance

	improve perceived resilience amongst students.	will make staff less willing to support each other and is likely to discourage younger people (and in particular women) from pursuing a career in science)	our teaching provision in the light of this.				forms submitted by 20%
32	Carry out a 'stress assessment' on all teaching activities and change ways of working that are causing unnecessary stress to students	Stress prevents people fulfilling their potential, will make staff less willing to support each other and is likely to discourage younger people (and in particular women) from pursuing a career in science)	Identify activities that are likely to cause unnecessary or unhealthy stress to students	Sept 2018	June 2020	dHoS	Reduce referrals to welfare officer by 30%
33	Put a competition into the D&I newsletter to increase and monitor	Strengthen the School community	Competition designed and included in newsletter	June 2017		Chair D&I	>50% of the School community to have read the

	readership. Assess readership of the newsletter via staff and student surveys						newsletter when surveyed
34	Report issues raised in the D&I comments box at the Support, Teaching and Research staff committees	To ensure all groups of staff are equally aware of D&I issues	Items included in agenda of Support, Teaching and Research staff committees		Ongoing	Chair D&I	100% of all issued raised to have been addressed
35	Encourage a School member to become a dignity advisor, advertise the Dignity policy via the D&I newsletter and website	To provide individuals with the confidence to complain in the knowledge that their concerns will be dealt with appropriately and fairly.	Identify an appropriate volunteer, arrange training, advertise the scheme and the individual's name via the D&I website.	June 2017	December 2017	HoS	Appointment of a School Dignity Advisor
36	Monitor the number of women opting to take practical projects in the third and fourth years	There is an anecdotal suggestion that women may be more likely to avoid practical work (possibly due to having	Data presented to D&I committee	Sept 2017		DHoS Director of Teaching	% of female students taking practical projects to be not < overall % of female students.

		lower confidence). This might limit their opportunities					
37	Increase the profile of our news feeds by pushing the information to foyer displays and profile key achievements on the D&I newsletter	Celebrate success of staff and students to provide role models and allow people to set themselves reasonable goals.	Good news stories updated at least weekly on reception screens	June 2017	Ongoing	Chair D&I	Number and % of news feeds involving female staff
38	Identify staff member associated with each research group to act as D&I Committee liaison and encourage each group to organize a family friendly event.	To ensure all research areas are fully involved in diversity and inclusion activities. To ensure that there is a good community within each research group.	People identified and names listed on D&I website Events reported to D&I committee	June 2017	Ongoing	HoS	Number of events per research group
39	Establish a health and wellbeing programme with activities open to	To strengthen the school community spirit and to reduce	A programme of activities listed on the D&I website	Sept 2017	Continuing	HoOps	25% of staff and postgraduate students participating in

	staff and students of all ages and abilities.	stress which is important in encouraging women to stay in physics					some level of activity at least twice per year
40	Work load model to be explained to the staff committee	The survey suggests that some staff do not understand the system. To ensure that staff have full confidence in the methods	Agenda item for staff committee	Sept 2017	Sept 2019	dHoS	Repeat the survey questions to check for progress
41	Establish a nomination committee consisting of the most senior member of staff in each research group. This committee should determine the nomination process for key committees and ensure that people from the School are	External awards and prizes are an excellent way of celebrating success and producing a range of role models. Given the relatively high number of women we have at level 6 and 7, we are likely to	Committee established	Sept 2017	Continuing	HoS	20% more staff nominated for external prizes. % of female nominees to be not < than % of female staff and researchers in the School

	nominated to relevant roles every year.	be able produce a large number of female role models					
42	Run a ‘Be Yourself’ Taster day to address gender stereotyping	Girls and boys both suffer from gender stereotyping at school and it limits the number of women entering the physics pipeline.	Conference planned and run with local schools	Dec 2017	Ongoing (annually)	Chair Outreach Committee	Number of school pupils attending. % of M to F pupils at conference