

Durham University Department of Physics

Reapplication for IoP Juno Champion status

Prepared by: E.H.C. Bromley et al.

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0. Introduction

This document constitutes our reapplication for Juno Champion status. We have made several substantial and significant changes since our last application, based on the feedback we received, and hope that these will combine to be a sufficient improvement for the award to be achieved. In particular:

- (a) We have consolidated and strengthened the organisational framework for communicating and implementing Diversity and Equality policy within the department, including the updating of terms of reference documents governing the flow of information between key committees, formalizing the Head of Department as an *ex officio* member of the Diversity and Equality Committee, and creating a 'Juno Working Group' that meets more regularly to follow through on policy implementation.
- (b) We have increased the involvement of Heads of Section in the collection of data and the dissemination of information. This application and the associated action plan have been debated and approved at our Board of Studies, improving both the visibility of the document and the buy in from the department.
- (c) We have substantially updated the Diversity and Equality (D&E) area of our website to make it a core resource centre for both information and dissemination (see <https://www.dur.ac.uk/physics/internal/diversity/>). This will shortly be mirrored by the creation of a physical D&E space within the department where resources will be available as well as providing a neutral, accessible space where staff can meet students.
- (d) We have made substantial gains in both understanding the nature of gender bias in undergraduate attainment and degree programme selection, and in correcting that bias via a series of educational reforms.
- (e) We have launched a new mentoring scheme within the department.
- (f) We have continued the dramatic improvement in coverage of staff and student D&E training, in particular promoting an institutional change to add D&E training to student induction events.

0.1. Context of the Department and the University picture

The Department of Physics is well established and currently comprises around 270 staff of which 75 are Academics, 75 are professional support staff and technical staff and around 120 are fixed term research staff (PDRAs) and teaching fellows. Durham University runs a Natural Sciences programme from which many students study physics, as well as the 3-year BSc physics course and several flavours of 4-year MPhys courses. We have around 870 undergraduates taking our core courses each year across the 4 levels. Of these around 570 are registered as doing Physics and 330 are registered as Natural Scientists (or other courses). Of the 570 physics students, approximately 470 are registered on the MPhys and 100 on the BSc. At postgraduate level we recruit around 40 PhD students per year.

The department is managed by the Head of Department (HoD) who chairs the Senior Management Committee (SMC) and the Operations Group. The HoD is a core member of both the Diversity and Equality Committee and the Juno Working Group. The primary route for discussing, agreeing and implementing change is the Board of Studies (BoS). This is chaired by the HoD but has all academic

staff as members along with representatives from all other demographics of the department. There are many other committees that report to the BoS including the DEC (see Figure 0.1). All formal committees now have standing items to discuss D&E issues.



Fig. 0.1. Organisation and Committee Structure for the department.

The department comprises five research sections: Atomic and Molecular Physics (AtMol), Astronomy (which contains the Centre for Extragalactic Astronomy and the Institute for Computational Cosmology), Advanced Instrumentation (conflated with the Centre for Advanced instrumentation, CfAI), Condensed Matter Physics (CMP), and Elementary Particle Theory (conflated with the Institute for Particle Physics Phenomenology, IPPP). The section structure is strong within the department with a variety of differing academic practices seen across sections, due to differences in funding streams, research outputs, and culture. The role of Head of Section (HoS) is therefore a crucial role. All HoS sit on both the Senior Management Committee and the Research Committee and also have delegated responsibilities from the Head of Department (HoD) for line managing academic staff within sections, as well as being responsible for setting academic practise expectations within sections.

It is important to view the diversity and equality activities of the Department of Physics in the context of the institutional environment. Durham University was awarded its first Athena Swan accreditation in 2011, when it achieved the institutional bronze award. There are many initiatives concerning areas such as part-time work, core hours for university business, promotions and probation, and the mandatory training of all staff and students in D&E issues that are currently undergoing changes at the university level. These policies are now beginning to be developed institutionally, with input from the Physics DEC and our HoD, following changes in the last year to personnel, funding and structure within the University's Diversity and Equality team.

0.2. Juno Committee

The Juno Committee (called the Diversity and Equality Committee, DEC) has changed substantially since our original practitioner application, when it comprised a Chair, 6 academic members and the Director of Operations. At the time of our previous Champion application it had expanded to include representatives from the undergraduate, postgraduate, PDRAs and technical staff groups. Since then, we have formalized the membership description of DEC via terms of reference approved by our Board of Studies committee as comprising a Chair, Secretary, Head of Department, Director of Operations, Disability Contact, 2-5 Academic members, 2 each of undergraduate, postgraduate, PDRA members, and representatives from each of the technical staff and the professional support staff. The DEC now operates as the umbrella organisation for separate working groups within the department. These groups include an undergraduate working group (run by the student representatives), a postgraduate working group, a PDRA working group and the Juno Working Group. A brief introduction to each of the current members of the committee can be found in the Appendix.

The DEC is a sub-committee of the BoS and reports to the BoS. DEC meets three times a year and is the forum for proposing and approving initiatives to change departmental practice and policy. The Chair is then tasked to take proposals to the relevant committees (for example the Board of Studies, or the Education Committee) for feedback and implementation. The Juno Working Group comprises the Chair and Secretary of DEC, the HoD, the Director of Operations and two other academic members and is tasked with monitoring departmental progress against the action plan, implementing detailed changes to policy and practise and compiling accreditation information and documentation. The Juno working group reports to the DEC.

0.3. Progress in the Five Juno Principles

We have outlined our achievements, issues and actions for the future against each of the five Juno principles. We have indicated our progress against both our practitioner and previous Champion action plans.

1. Principle 1: A robust organisational framework to deliver equality of opportunity and reward

1.1. Overview of progress against action plans

In our previous Champion application we outlined the ways in which we had met our practitioner action plan activities, including engaging HoS via Senior Management Committee and getting representation from all sections and PDRAs on DEC. We also demonstrated we had consolidated the position of D&E work in the department by obtaining workload credit for members of DEC and filing our terms of reference at the Board of Studies. We further met our action plan in collecting and analysing departmental data, including running staff surveys.

We have also made substantial progress against our action plan on Principle 1 in our prior Champion application. Against action PCP1 we have successfully investigated the sources of gender bias in the BSc class and in attainment bias across the whole programme. We have been able to identify interventions that are likely responsible for the reduction in the number of students, and female

students, who are required to change from the MPhys courses to the BSc course at the end of Level 2, and can now investigate their implementation at level 1 to remove our residual gender bias in attainment. This year we have succeeded in achieving a slightly higher proportion of women on the MPhys course than on the BSc course, however we will continue to monitor the situation.

Against our prior Action PCP2, we have been able to support the continuation of the undergraduate D&E group and proliferate this structure to the postgraduate and PDRA communities. DEC now exists as an umbrella group to bring together working groups at various levels across the department. We have funded several students to attend D&E conferences targeted at women in STEM, who have then delivered reports back to DEC.

Where we have been less successful against our previous action plan (see action PCP8), is in the engagement and support of a PDRA forum for each section. We believe this is due to a lack of critical mass in research sections, in that only a few of the PDRAs are engaging in D&E work or community building at any one time. Another problem is that committed and engaged staff (of which we have had several) tend to move on and leave a hole, with little or no continuity of operation. In our most recent meeting the PDRA representatives to DEC presented a plan to begin regular meetings and develop engagement. The DEC then formulated a mechanism by which continuity of committee membership could be achieved once a stable plan of activities had been set, by advertising vacancies giving a more detailed description of these roles.

We have therefore replaced action item PCP8 with a new action to support the departmental forum to include PDRAs from each section (see action NCP2.1).

1.2. Changes to our organisational framework

As we have outlined in the departmental snap shot and Juno committee make up, there have been several changes in our organisational framework, including the addition of working groups to investigate and stimulate discussion in D&E amongst students and PDRA demographics and to facilitate change at the academic staff level. There has also been further development and future proofing of our Terms of Reference and committee membership documentation, in the listing of the HoD as a core member of DEC, and the creation of the facility to create working groups to deliver practical departmental change.

Engagement of HoS with D&E has continued to be a key issue since our 2015 application. HoS were asked to promote the Staff Survey this year, which enabled us to reach a far wider and larger demographic than we had previously had feedback from. We have also been able to engage HoS in discussion about spreading best practice in various areas, including the recruitment of post-graduate students, the hosting of tailored D&E training and the way in which the role of HoS is defined.

We have made great improvements to our communication pathways in the department. This included the addition of standing items relating to D&E in each of the other departmental committees. This enables the opportunity for a member of a committee who is also on DEC to be delegated to report D&E information relevant to the committee, and to bring a report back to DEC. Where no member of the committee in question is a DEC member, it enables the Chair of DEC to be invited to present at the committee. This process has been demonstrated in action several times since implementation. As an example of this process, the Chair of the DEC made a presentation to

the Education Committee regarding the latest gender attainment gap statistics and requested that the newly formed 'Transitions Working Group' (a committee created to look into improving student experience in level 1) be requested to consider the D&E implications of any changes proposed, and to report back to DEC on how their recommendations for the future might be expected to impact gender bias at level 1. As a second example, when the HoD was requested by the University to return additional departmental promotions criteria, discussion of the issue by DEC was requested by the HoD, and the resulting consideration were fed back to the following BoS meeting.

We have also made efforts to improve the visibility of the D&E work in the department by producing both an introductory slide and a series of 'You told us, we did' information slides for display on the video screens in both the main building foyer and the foyer of the new physics building. We have also installed and advertised by email and on the screens a 'suggestions box' allowing people to make anonymous suggestions, comments or complaints on D&E related issues. We have enhanced and enlarged our web presence and created an area in which D&E related resources can be easily found.

Allocation of resource to DEC has been in the form of credit in the work load model, as well as the availability of funds to attend D&E related conferences, and to host events within the department. We have now agreed a budget going forward of £1000. The creation of the Juno working group has changed that allocation with a large net increase in the time resource being allocated to implementing and documenting D&E activities in the department. Due to the timing of this activity, this credit was applied retrospectively on this occasion, which is something that will be avoided in the future (see action NCP1.1).

1.3. Changes updates and additions to our Monitoring and Evidence Base

1.3.1. Staff data

We have updated our evidence base since our last application and updated charts can be seen for Staff numbers and proportion female by role name (see Fig 1.1) and Staff numbers and proportion female split by contract type (see Fig 1.2).

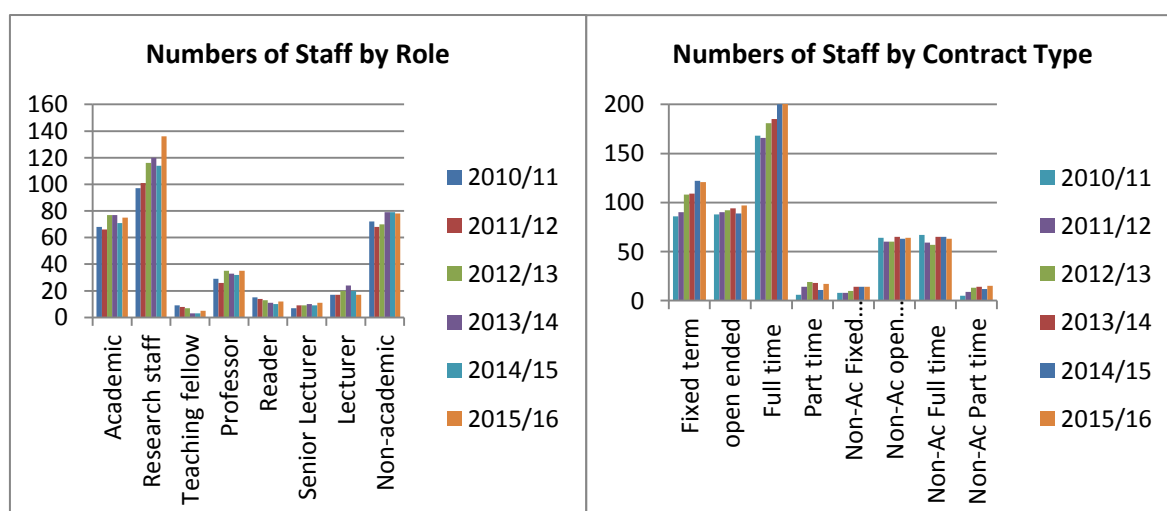


Fig. 1.1. Staff numbers split by role

The total number of people employed in the department has increased over the last 5 years from ~250 to ~300, with most of the increase coming in PDRAs. The numbers of people in each category of role, and the proportion female show no clear trend with year to year variations being small, although a slight increase in the proportion of staff who are female is seen over all. In comparison to the national statistics we have a higher proportion of female professors than the average but a lower proportion of female academics over all (17% nationally and 13% in Durham). This would suggest that we need to focus efforts on recruiting more women rather than on further changes to the promotions system. Our proportion of female researchers is in line with the average nationally, however we must still improve this number until it at least matches the proportion of qualified women in the PhD pool. Action items regarding recruitment can be found under Principle 2.

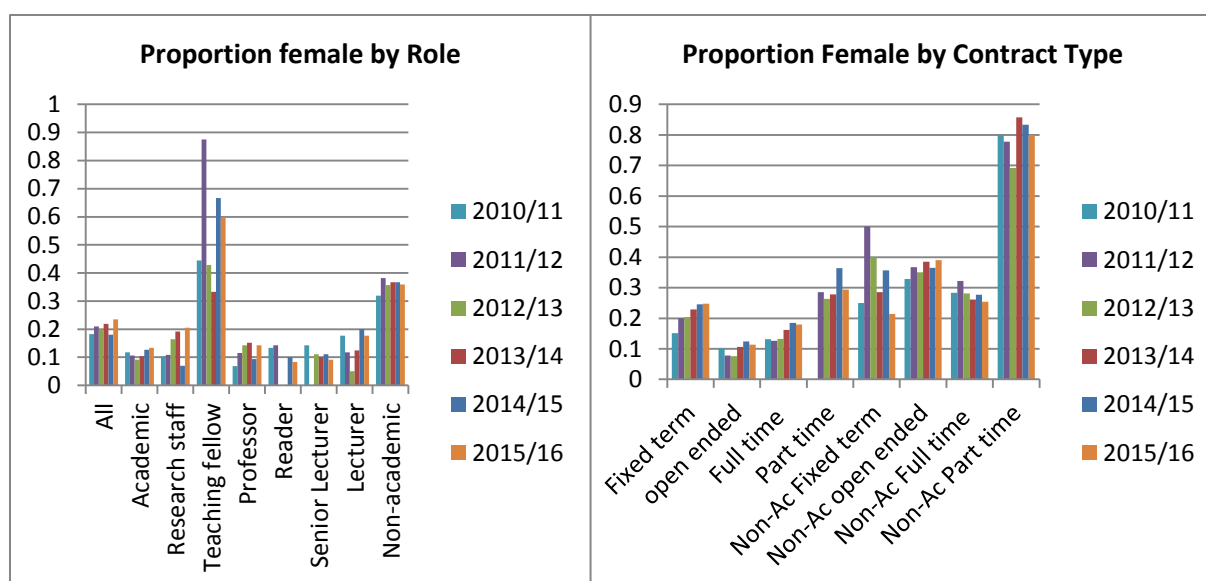


Fig. 1.2. Staff numbers split by contract type.

The data split by contract type indicate that part-time work is rare within the academic group, though slightly less so in the non-academic group (see Fig. 1.2). The proportion of part-time workers who are female is higher than expected, meaning that women are over-represented in this group. In terms of contract type, women are more biased towards being on fixed term contracts although this is due to the previously presented lower numbers of women in academic positions as opposed to PDRAs. The underlying female recruitment problem is discussed further under Principle 2, and further discussion and actions on part-time work can be found under Principle 5.

We have presented new disaggregated data for the promotions rounds, and also included new data outlining the turnover of our staff across different contract types. Both of these data sets are discussed under Principle 3.

1.3.2. Student data

We have undertaken a further investigation of Postgraduate and Undergraduate recruitment, for which the data, discussion and actions are presented under Principle 2.

We are presenting for the first time data on the completion rates of PhD students. This can be found under Principle 3.

We have performed an extensive analysis of the performance of our undergraduates, including analysis of their incoming grades, their module options and scores throughout their degrees and through this we have been able to identify the underpinning reasons for female over representation in the BSc course. All of the new data in this area is presented with discussion and actions under Principle 3.

As a long term action item on our data collection and analysis, we plan to begin collating data regarding other forms of diversity than gender. This is a task that many of our staff feel passionately about, and is often a topic of discussion when D&E matters are discussed. However, it is a difficult task within Durham generally as the racial diversity is so low as to make gathering information difficult without making individuals identifiable. We do expect that, at least for the undergraduate population, we will be able to analyse data without breaching ethical guidelines and discover to what extent we may be disadvantaging ethnic minority students (see action NCP1.5).

1.3.3. Staff Survey

We ran our staff survey for the third time in July 2016. This year we had an increased level of support and engagement from Heads of Section which resulted in a record number of returns, bringing the proportion of people answering the survey from around a quarter of the department to around half of the department (see Figure 1.3). Although this is a very welcome increase in engagement with D&E activities, we have a long way to go to improve our response rate. The increase was mostly from increased engagement of PhD students and PDRAs and was fairly evenly split across sections with IPPP showing the biggest increase. We have responses in the roughly expected proportions from men and women, and from all roles with the exception of the non-academic group that includes professional support and technical staff. When this survey is run in the future we will more actively involve those people line managing non-academic staff in the promotion of the survey, as well as offering a prize and publicizing the outcomes of previous surveys (see action NCP1.3).

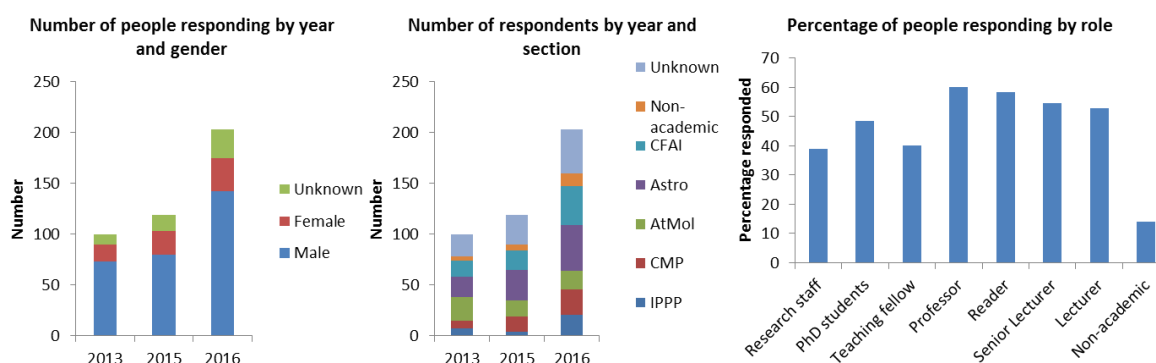


Fig. 1.3: Breakdown of survey respondents by gender, Section and as a percentage of people in each role.

We discovered that PhD students had not previously engaged because the questions in the questionnaire were staff oriented. In order to address this issue and improve response rates, we will deploy questionnaires directly addressing issues for PhD students and PDRAs in alternate years to the main survey, as the turnover of personnel is higher in these groups and they have specific different issues and requirements (see action NCP1.3).

In general the respondents were positive about the D&E agenda with over 90% agreeing that the department should put effort into D&E work and more than 75% agreeing that we are making progress. Over 80% of respondents agreed that career advancement and work allocation were free of bias. Similarly around 90% of respondents agreed there was a need for positive action and around 80% felt that action was occurring. Among the respondents of the survey we have evidence therefore that our efforts to explain the need for action on diversity are being successful.

Our challenge therefore, is to continue to engage with new groups of people within the department, how have not previously responded to these questionnaires and to respond to the new Diversity and Equality related needs that are revealed when we begin engaging with them.

We still have a relatively large number of people responding without filling in the demographic information, which might indicate a continued lack of trust. PhD students, PDRAs and members of the Astronomy section were the most likely to withhold gender information. We believe this may in part be due to certain individuals in rare categories feeling they would be identifiable from their answers, but mostly that the departmental database is used to record answers. In the future we will use an external system to administer the survey in the hopes of improving trust in anonymity (see action NCP1.3).

The answers to the questions were split by gender and plotted (see Appendix Fig A1.8). This indicates some fairly obvious results in that women are more likely to report they have been assigned a task due to gender, but also that women and people who declined to supply gender information are more likely to have negative impressions of departmental training, annual staff reviews and policy. The women and unknown groups were also more likely to indicate they did not understand the promotions systems (see action NCP1.4).

In general people appear to think the department is a good place to work, with 75% responding they agreed with the statement that the department was a great place to work for women, and 95% responding that they agreed it was a great place to work for men. There is clearly a disparity between the responses both on behalf of women and by women (see Appendix Fig. A1.7). We will clearly need to continue with our participation in the JUNO programme in order to address this issue.

When the data are split by role (see Appendix Fig A1.9), we discover that Lecturers are answering the most negatively on issues across the board. Further it would appear that lecturers are answering more negatively than in either previous survey on issues around the promotions process, which may be as a result of recent changes to our internal promotions rounds. We plan to organise workshops for lecturers in order to allow discussion about the process (see action item NCP3.3). Further to this there are new policies being enacted at the institutional level that will see our current 4 stage system replaced with a 3 stage system (assistant professor, associate professor and professor) along with changes to the procedures including all academic staff being considered for promotion every year. This information will be disseminated through BoS meetings as before.

Fixed term respondents and PhD students responded most negatively regarding knowledge of harassment contacts, and also reported the largest gap between whether the department was a good place to work for women and men. We hope to address these issues via the targeted sessions

we are running on Bullying and Harassment for PhD students, which, as a result of this survey, we now realize must also be open to PDRAs also, (see action NCP4.4).

When the data are split by section, we find several interesting, though in many cases marginal, differences in response patterns (see Appendix Fig 1.10). The IPPP section is generally less positive than the other sections particularly regarding out of hours work. IPPP, Atmol and CMP sections report less confidence that all contributions are valued in promotion, and lower confidence in the support mechanisms in the department including mentoring and the annual staff review. Meanwhile the Astronomy section is generally more positive but have the lowest agreement that they understand the promotions procedures. The Chair of DEC will liaise with the relevant Heads of Section in order to address these issues in a tailored fashion (see action item NCP3.3).

1.3.4. Free text comments from the Staff Survey

Free text comments covered issues including being asked to work outside normal hours and being asked to do jobs purely due to gender. Numbers given in brackets indicate the number of times a comment of this nature was made.

Question 1: “In the department, work is allocated on a clear and fair basis irrespective of gender, sexuality, disability, age, ethnicity or religion: Please give any examples where this hasn't happened”

- i. Consideration given to gender when appropriate, some additional burden incurred (open days, outreach, committees, panels). (8)
- ii. Culture of volunteering for minor section admin may over burden certain groups. (1)
- iii. Lack of transparency in duty allocation. (1)
- iv. Departmental favouritism – certain people have a high profile and are constantly held up as examples (no women). (1)
- v. Female staff are advantaged in promotion, and are not present in committees. (1)
- vi. Women only asked to do meetings to satisfy criteria rather than to contribute. (1)
- vii. Gender imbalances in admin and technical staff roles. (1)

Several comments refer to perceived or future discrimination rather than existing discrimination. We will address these by requesting the section heads keep a note of any minor section-based tasks that are not given explicit credit and make sure they are rotated fairly (see action NCP4.11). Other issues are more generally addressed via our training programme.

Many comments addressed out of hours work, and indeed 30% of respondents to the survey said they agreed that they had to work outside of core hours. It is clear that many people feel that out of hours work is necessary for professional success in academia. This can have knock-on effects on people working in support roles and on students. This is related to the expressed opinion that part-time work is incompatible with academic success, which is discussed further under Principle 5.

Question 2: “Are you asked to work outside conventional hours?”

- i. Assumption of working longer than nominal hours, damaging to quality of life. Including people told their commitments outside working hours make them unsuitable for academia. (9)
- ii. Field trips/conferences (5)

- iii. Exam grading/checking causes very extended hours. (5)
- iv. Frequently working outside hours, but isn't unreasonable. (3)
- v. PhD students told/implied working extended hours is necessary (3)
- vi. Travel/poor planning causing support staff to work outside hours (little consideration shown) (3)
- vii. Supervisor meetings/research meetings after 6pm (2)
- viii. Level 4 project viva turn around. (1)
- ix. University policy precluded paying for wraparound childcare in unusual circumstances. (1)
- x. Teaching extends beyond 5pm. (1)
- xi. Hosting of visitors causes extended hours. (1)

In the cases of specific reasons for working later we have been discussing options including bringing in additional staff to mark larger exam sets and moving deadlines for project submissions. For the issues around PhD meetings and supervision we have asked postgraduate Section Reps to provide more guidance through the staff student consultative committee on what constitutes reasonable requests regarding supervision times and working hours from both a staff and a student perspective (see action NCP5.4). The wider topic of out of hours work is discussed with actions under Principle 5.

We received only a few critical comments about social activities, which focussed on events not being as family friendly as they could be.

Question 3: "Are there inclusive social activities?"

- i. Activities scheduled at wrong time for people with children/live distant (2)
- ii. Inappropriate alcohol levels at BBQ for family friendly (2)
- iii. Section activities needed (1)

To address these issues we are planning a new social event to coincide with school holidays this year and will endeavour to model a more family friendly approach to alcohol at the next departmental BBQ (see action PCP22).

2. Principle 2: Appointment and selection processes and procedures that encourage men and women to apply for academic posts at all levels

2.1. Staff Recruitment Policy

The department abides by the University policy on recruitment for staff positions (including open ended and fixed term appointments) which contains several elements.

Firstly, advertising materials being checked by HR to ensure they do not contain language that would disadvantage by any of the protected characteristics under the Equalities Act 2010. We wish to take this idea further and reduce the usage of words that can bias against applications from minorities (for example over emphasis on requiring "world leading", "outstanding", etc.). We plan to work with HR to allow uses of these kinds of words to be highlighted to people placing adverts before acceptance of the advert (see action NCP2.7).

Secondly, recruitment processes involve stages of redeployment, and internal advertising before external adverts can be placed. In this way qualified internal candidates are given priority over external candidates, a policy which should in the long term improve employment of women who are sometimes less free to move.

Thirdly, recruitment of all staff involves a two stage process of shortlisting followed by interview. Statistics on the number of applicants and shortlisted candidates are now collated by HR, however these data are only available from the last year and onwards. Selection for shortlisting and for appointment is done using a criteria based format in which the criteria are vetted by HR, and selectors are asked only to indicate the strength of evidence provided against each criteria on a 0-3 scale. This mitigates against using volume of output as a metric and reduces bias against non-traditional career paths.

Finally, staff on selections panels are required to attend the 'Recruitment and Selection' training provided by HR. This hour long session covers the legal aspects of recruitment as well as covering the concept of unconscious bias and how to mitigate for it in substantial detail. Information is also given on ensuring career breaks and previous part-time work or long term leave are taken into account. Further to this, in order to chair a recruitment panel it is necessary to either attend a longer, more detailed 'Chairs briefing for recruitment Panels' training, or to have a member of the HR team in the room to observe the interview process. It is University guidance that appointment panels be balanced by gender. In this one respect we do not adhere strictly to University best practice due to the excessive load this would place on existing female staff members. We do however advocate that at least one member of an interview panel must be female.

Once appointed, the University provides induction courses for all staff including PDRAs. Previously the uptake of University Induction had not been high enough, however the University has responded to make induction compulsory and now involves line managers in ensuring that all new staff attend the earliest possible induction event after appointment.

In addition to the University induction process, the department provides all newly-appointed staff, including PDRAs, with induction materials. These include an orientation talk providing the opportunity to meet members of the professional support staff, explaining the structure of the department and the resources available (particularly what can be found where on the departmental website), a welcome pack of information on who to contact to get keys, email, and registered on the database. Staff are also given their probation form information and instructions on how to proceed with filling it in.

2.2. Staff Recruitment Data

The data for academic posts (see Table 2.1) show that we have had very few appointment rounds for academic staff over the last few years, and that some of those rounds had very low numbers of applicants. In some cases this was because the job specification was unusual (e.g. Director of IPPP). In another case a hiring round was actually the way in which a job originally offered at 'lecturer' level was reoffered to the successful candidate at 'senior lecturer' level. The percentages of female applicants and shortlisted applicants are given as a range to account for the applicants who withheld gender information. The data indicate that our most significant problems lie in gaining sufficient female applicants and in converting shortlisted women to offers. Historically we are recruiting at

around the rate expected given that approximately 20% of the qualified applicant pool is female. However in the last year reported we have not hired any women, which is clearly out of line with our ambition to improve gender balance.

Year	Applicant-F	Applicant-M	Applicant - no info	Shortlist - F	Shortlist - M	Shortlist - no info	Hired-F	Hired -M
2015/16	3 (4-18%)	64	11	1 (9-27%)	8	2	0 (0%)	3
2014/15	2 (33-66%)	2	2	2 (50%)	2	N/A	0 (0%)	1
2013/14	2 (22-33%)	6	1	2 (29%)	5	N/A	1 (50%)	1
2012/13	32 (12-25%)	207	37	7 (17%)	35	N/A	1 (20%)	4

Table 2.1: Academic Staff recruitment data

The numbers relating to PDRAs are incomplete as the University has historically not stored the shortlisting information for these posts. This problem has now been addressed by upgrades to the HR system, so all data from this point onward should include shortlisting.

The data show a disturbing trend towards a lower percentage of females recruited (see Table 2.2). Closer inspection of the data from the most recent year indicates several recruitment processes in which all-male shortlists occurred when female candidates had applied, often with very small shortlists. Several processes also had small numbers of applicants which were not diverse. In fact only a minority of the recruitment processes had shortlists containing more applicants than were appointed.

A preliminary investigation of this indicates that certain personal fellowships are being included in the data which could not be applied for by more than one person. More single applicant processes were accounted for by redeployment of existing PDRAs to new projects. This leaves a few larger processes in which the appointment list appears to have been decided at the shortlisting stage. It is unclear at this time if this represents a failure of the reporting to accurately represent the process, or if the HR process is not being used due to pressure on making offers to candidates before interviewing is complete.

We therefore have three issues to resolve. Firstly it would be very helpful to have more information alongside the information currently collated by HR. It would be very useful to have notation that indicates where a process ended with internal redeployment, and where appointment is due to a personal fellowship and not open competition. There is also potential bias in the applicant data due to applicants from countries that may not be entitled to work on UK or EU grants, or applicants without relevant qualifications, having a greater intrinsic diversity than those applying from qualifying countries with applicable qualifications. It would be useful to have separate statistics for qualified eligible candidates. We will work with HR to improve the data provided and expand such provision throughout the University (see action NCP2.2).

Secondly, we hope to be able to put in place a mechanism by which data on the number of applicants and the diversity of the applicants can be forwarded to the academic lead before the cycle closes. This would enable the cycle to be extended until a larger more diverse applicant pool

had been generated (see action NCP2.2). The way in which recruitment information is feedback to academic leads is under discussion at the institutional level as part of the new recruitment strategy.

Finally we need to uncover the reason for large group appointments not following the standard procedure and work with HR to develop a system that will enable the shortlisting data to reflect better the reality of these specific processes, and to ensure that a proper shortlisting phase can take place in the timescale required (see action NCP2.2 and PCP5).

Year	Applicant-F	Applicant -M	Applicant - no info	Shortlist - F	Shortlist - M	Shortlist - no info	Hired-F	Hired -M
2015/16	32 (17-25%)	140	15	4 (13%)	27	0	3 (14%)	18
2014/15	51 (19-31%)	184	33	N/A	N/A	N/A	5 (21%)	19
2013/14	81 (13-24%)	485	72	N/A	N/A	N/A	10 (24%)	31
2012/13	59 (13-25%)	350	59	N/A	N/A	N/A	9 (26%)	26

Table 2.2: PDRA recruitment data

Non-academic staff recruitment data have also been collected for this period. Again, shortlisting data have only been recorded in the last academic year. On average it would appear that we hire women at a higher rate than they apply. Once again we most need to address the low rate of female applicants as a priority.

Year	Applicant-F	Applicant-M	Applicant - no info	Shortlist - F	Shortlist - M	Shortlist - no info	Hired-F	Hired -M
2016	10 (11-37%)	57	24	6 (21-45%)	16	7	3 (21%)	11
2015	25 (16-35%)	99	28	N/A	N/A	N/A	4 (44%)	5
2014	38 (45-65%)	29	17	N/A	N/A	N/A	3 (43%)	4
2013	4 (6-19%)	56	9	N/A	N/A	N/A	0 (0%)	4

Table 2.3: Non-academic staff recruitment data

One possible way in which we could make application to Durham seem more attractive to a more diverse applicant base, would be to actively prompt academics writing job description to consider offering part-time options for the post, and to highlight in the advert the availability of part-time work options. We plan to add an additional stage in the submission of all regrading, and hiring rounds which would require the chair of the selection panel to explicitly declare if the job was suitable for part-time work, and where possible, add this information to the advertising materials (see action NCP5.2).

2.3. Postgraduate student recruitment

University policy on recruitment panels does not apply to the recruitment of Post graduate students. We are able within physics to ensure that all people running postgraduate recruitment have obtained the same recruitment and selection training required for staff recruitment (see action NCP2.0).

We have produced more detailed data on Postgraduate recruitment (see Table 2.4 and Tables A1.4-9 in the Appendix). Applications fit into two broad categories, those which are made when the applicant has a funding source available, and those made to competitive funded places the department can allocate. On surface it appears that we have applications from women only a little less frequently than would be expected given the gender make-up of the applicant pool, however, the real situation is more complex. The proportion of students bringing their own funding who are female is far higher than the proportion of students applying to competitive places who are female. In other words the self-funding applications are masking a deficit in both the number of female applications to competitive places and the number of female post graduate students arriving to begin their studies. This can be seen in the very different self-funding ratios of male and female students, with 50% of our female students having come through with their own funding as opposed to 17% of our male students. The majority of this funding comes in the form of scholarships from foreign governments.

The other area to address is the slightly lower rate of accepting competitive places we see for female students. The numbers of students making up this statistic are small, but across the whole department it is possible to see the drop in the percentage female between offers and acceptances.

	2016		2015		2014		3 year total		
	F	M	F	M	F	M	F	M	%
Applicants	47	224	41	273	48	217	136	714	16
Non-withdrawn	39	199	33	245	42	186	114	630	15
Offer	15	51	11	53	17	34	43	138	24
Accepted	11 (22%)	39	6 (14%)	36	9 (32%)	19	26 (22%)	94	22
Self-fund %	55	23	50	14	44	11	50	17	

Table 2.4 – Department wide postgraduate recruitment

We have made some progress against our action plan item (PCP12) of getting 20% female PhD students in all sections, with only the Astronomy section failing to meet this, in securing 14% female PhD students (with the biggest loss being in conversion of offers to acceptances). We have added the following new actions to help move this process forward, focussing on spreading good practice in recruitment, and in following up on people who reject offers to find out the reasons.

The first proposed action is for CMP and AtMol sections to set earlier deadlines for assessing competitive places (see action NCP2.3). This has been made possible by changes in the way the EPSRC informs the department about the availability of studentships. Secondly we will encourage all sections to include more of the good practice seen in CFAI, where attention to gender profile in advertising materials and the use of correspondence with colleagues in other universities appears to

be leading to an increased rate of female applications and conversions of offers to female candidates (see action PCP11).

Finally, this process has demonstrated some issues with the way in which we record and process PhD applications. In the future we will ask students to clarify what funding stream they envisage supporting their studentship as early as possible in the process. Where students are ineligible for competitive streams we will make a decision sooner than the deadline for the competitive processes, thus decreasing our turn-around time in these cases. More information on funding and the decision process will be recorded in our database, to make processing of admissions data smoother in the future (see action NCP2.3).

2.4. Undergraduate student recruitment, offer analysis and incoming grades

Durham runs a Natural Sciences programme from which many students study physics as well as the 3 year BSc physics course and several flavours of 4 year MPhys courses. This mixture of straight Physics and Natural Sciences makes it difficult to analyse data and to track student's progress as people may swap between the two programmes. The same is true at levels 1 and 2 for the BSc and MPhys courses. Students are told that their choice is not fixed initially and hence they may opt to be registered on either the 3 or 4 year course for levels 1 and 2 without any particular commitment. At the end of level 2 a decision is made by the student with the limitation that in order to progress onto the MPhys they must secure an overall mark of 55% in their second year (NB. This has only been the case for the last two years, prior to this, students needed more than 50% to proceed to the MPhys but those in the 50-55% range were discouraged by the department from proceeding to the MPhys).

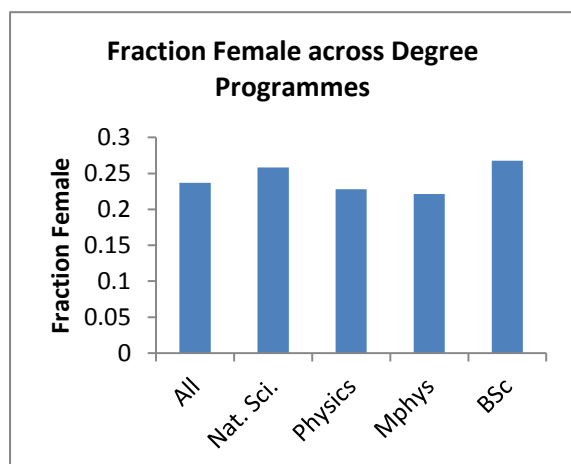


Fig. 2.1 The proportion of students who are female across the different degree programmes in 2015.

University policy on undergraduate recruitment means that all staff involved in assessing UCAS applications have undergone a day long 'Compulsory Admissions training' session, which addressed issues of unconscious bias and how to assess applications fairly taking into account the diversity of candidate backgrounds.

We have updated our previous data on recruitment and numbers for the different programmes (Fig. 2.1). There is little change from

our previous application and the over representation of women on the BSc continued to be a problem which we have now investigated further. We have also updated our attainment by

gender data (Fig. 2.2), which continues to show a gap in performance by gender.

To explore the over-representation of women in the BSc programme the female fraction was calculated by year of entry to comparing data from the students original non-binding preference to their final choice in level 3 (see Fig. 2.3).

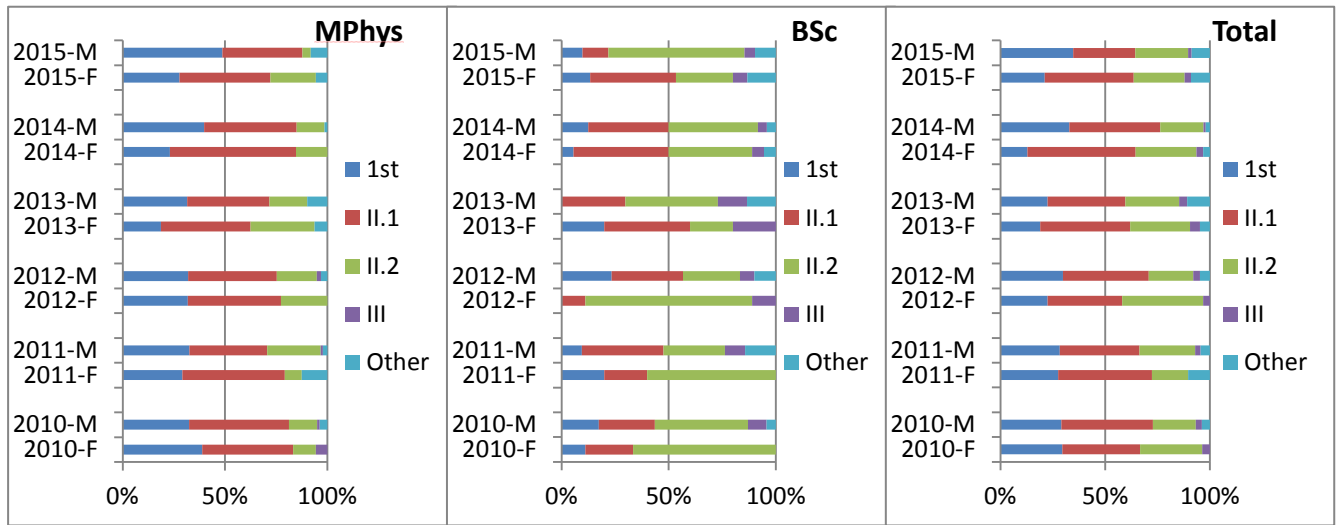
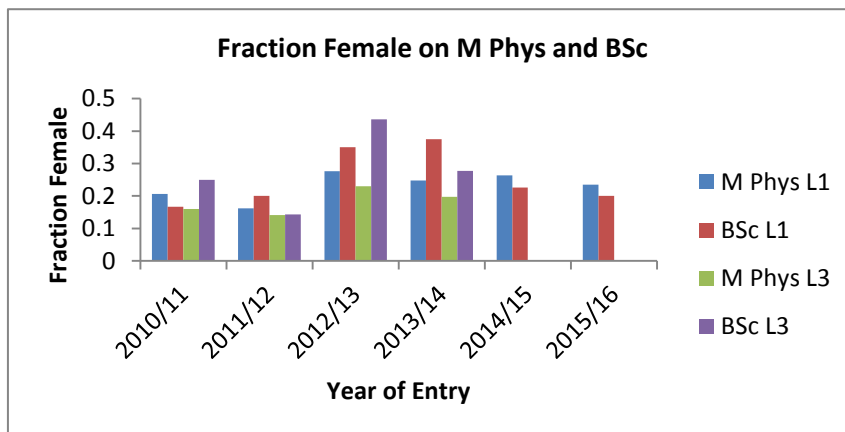


Fig. 2.2 Plot showing male and female attainment in degree outcome across the different programmes.

This shows firstly that the level of over representation in initial preference has swung towards women being under-represented, and secondly that women are over-represented once the decision is finalized. The data follow the pattern of national statistics in which 23% of first year students on enhanced first degrees are female and 22% of Bachelor candidates are female. By the time they complete the course this has dropped to 20% of Masters graduates and 24% of Bachelor graduates.



In order to investigate whether this phenomenon is generated by choice or by the grade restriction we investigated the achievement of students by gender in more detail, and the results of this are presented under Principle 3.

Fig. 2.3 The proportion of students registered for MPhys or BSc when they arrive in contrast to when they reach level 3.

2.4.1. Firm and Insurance Acceptance rates

We have examined the rates at which women apply to Durham and to which we make offers and have those accepted (see data table in appendix). These data indicate that women are 23.7% of applicants. We make offers to them slightly more than their proportion indicates, (24% of offers and initial acceptances), but we lose women between accepting the offer and arriving in Durham (22.3% of arrivals). The problem we need to address therefore is the lack of conversion to attending Durham. The 'transitions' team is investigating installing opportunities for additional communication

with potential incoming students as well as holiday activities for the post results period. This may help make women feel welcome in the department and increase the chance of them arriving in Durham. We will continue to make sure we have visible female role models during post offer visits.

We have looked at the way in which the choice to accept Durham as a firm or insurance place may be influenced by gender. The overall picture appears to indicate that the expected 22-25% of those accepting Durham as a firm offer are female, however a lower proportion of those choosing Durham as an insurance place are women. The only other data that rises convincingly from the noise is that women are far more likely than men to choose UCL while rejecting Durham (as either an insurance place or a firm place). Both of these trends may be to do with the Durham grade offer being so high. It may be that women are more inclined than men to think there is not enough difference in grade offers between their firm and insurance places if Durham is chosen as insurance. In the last year we have raised our offer level further to A*A*A and therefore we will need to look again at this data to see what effect this will have on gender balance. We will monitor the effects of both the transition team interventions, and the offer grade change on uptake rate (see action NCP2.4).

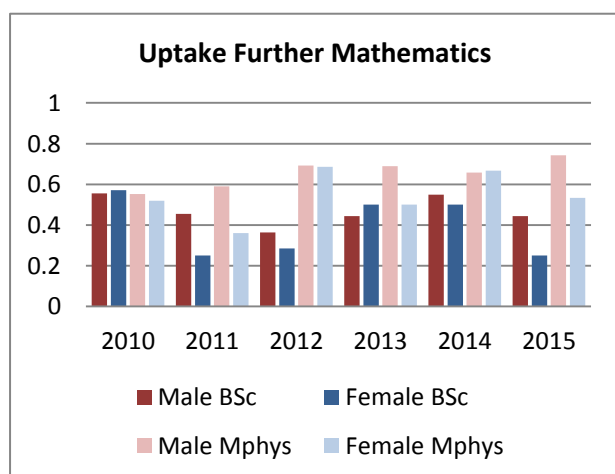


Fig. 2.4. Proportion of students who took A-level Further Mathematics

Our analysis of incoming A-level grades indicates that there is no significant variation by gender in overall UCAS tariff, grades in Physics, grades in Mathematics or grades in Further Mathematics. There is a small indication that women who initially opt for the BSc have lower incoming grades in Further Mathematics and Physics but the small difference may be exaggerated by small numbers. What we do see (although not in all year groups) is a lower proportion of female students who have opted to take Further Mathematics, and a lower proportion of those, male and female, who opt initially for the BSc have taken Further Mathematics (see Fig. 2.4).

Further Mathematics is known to be an important indicator of degree success within our program and we are constantly reviewing the ways in which students who have not taken Further Mathematics can be supported within the first year of our degree programme.

We are also acutely aware that changes to the structure of A-levels will impact the numbers of students coming in with A-level Further Mathematics, as well as the fraction of potential physics undergraduates that are female. We intend to liaise with the IOP and other physics departments to gain information about the impact of these changes (see action NCP2.5).

2.5. Outreach activities

The department engages in a variety of outreach activities, often in collaboration with external organisations including the Ogden Trust, Institute of Physics and Durham Local Authority. Several of these activities are aimed at encouraging girls in particular to engage with physics, but due to the

unique challenges of our locality, many of the activities aim to raise aspirations within deprived communities.

Our outreach endeavours to engage, enthuse and inspire learners, demystifying the concepts of 'higher education' and 'being a scientist', and range from one-off activities to longer-term projects and programmes. It is apparent that many school pupils, even at primary school, already believe that women cannot be scientists. Our activities therefore present a great opportunity to break down gender stereotypes and introduce relatable staff/PG student role models. There is currently a greater demand from schools and colleges for outreach sessions and site visits than the department can respond to. As such, to support our outreach work, the department trains and supports PhD students and early career researchers to become physics ambassadors and provide outreach activities to local schools. In the last few years this has included a compulsory element with the SOFI CDT (Soft Matter Centre for Doctoral Training based in Durham, Edinburgh and Leeds) training in which students produce an outreach activity after receiving training.

Since 2012, the department has been engaged with the development of *School Science Ambassadors* whereby school pupils are trained in science communication techniques and are supported in delivering activities, workshops and projects with their peers, families and at special events such as school summer fairs, business engagement events and at science festivals including Durham University's Celebrate Science event (a three-day festival of science coordinated by Durham University and including hands-on activities showcasing science from across the University's departments. The Department of Physics and some *School Science Ambassadors* contribute annually to the event which attracts over 7000 participants each year). To date, we have trained and supported over 600 North East pupils ranging from Year 4 to Sixth Form, and the programme has been integrated into the IoP's *Improving Gender Balance* and new *School Science Ambassadors* projects and resources, with the department supporting staff and mentor training in other locations across the UK.

Several female-only activities have been run, including departmental visits, activity days and *Science Ambassadors'* training sessions. Mentor training for such events uncovered that many PhD and post-doctoral volunteers had little awareness of gender-bias issues. This was mirrored in the responses of Year 9/10 girls and several teachers, including stereotyping issues and the impact of misogynistic slurs in the classroom. The gender awareness element of the training of Ambassadors has been expanded in response to the demand and integrated into other activities including events for girls run through the Computer Sciences Department.

With support from The Ogden Trust, the department coordinates a 'Schools' Physicist of the Year' event for Year 10 & Year 12 students. Schools are asked to nominate their "best" physicist. The definition is left open to schools, and winners and their families are invited to a prize-giving within the University. This is a valuable opportunity to encourage parents who may have little or no concept of what a university is to come on site and to give an impression of what physics and higher education more generally is about.

Following on from a successful physics partnership with local secondary schools (following an initial funding period from The Ogden Trust, eight schools and the Local Authority work with the department to develop and expand physics learning, teaching and physics-related opportunities),

the department is currently developing 'Primary Partnerships' as part of an aspiration-raising and widening participation effort supported by The Ogden Trust.

The department runs a 'Physics into Schools' level 3 module (that takes around 10 students per year), which often has substantially more female applicants than males. This also presents an opportunity to make female physicists visible in local schools. Currently these undergraduates are not given any gender awareness training, however we will aim to include this material in the course in the future (see action NCP2.8).

Our other action in this area is primarily about expanding the participation in outreach to include more diversity from the department. We plan to lower the barriers that prevent people from participating by providing general outreach training (including elements of gender awareness) to staff and students, and by employing students over the summer to convert common outreach and open day activities, into 'outreach in a box' resources, where staff can pick up all the equipment and resources they need to deliver an activity in one place (see action NCP2.9).

3. Principle 3: Departmental structures and systems which support and encourage the career progression and promotion of all staff and enable men and women to progress and continue in their careers

3.1. Departmental policy on Transparent appraisal and development

Departmental policy mandates that all staff complete an 'Annual Development Review' (ADR). In the case of academic staff this is usually performed with a senior colleague or HoS. All Academic ADR's are further looked at by the HoD. The purpose of the process is to monitor progress against goals set by the staff member and the reviewer, to identify training and development needs, and to set new goals for the following year. The ADR also presents an opportunity to seek advice about promotions.

All PDRAs also undergo the process which is usually administered by their line manager. Again the emphasis is on identifying training needs and goals for the future. Non-academic staff receive the same annual review, also administered by their line managers. The ADR process also offers an opportunity to discuss regrading and to seek career advice.

Completion of appraisals is recorded in our database when a completed paper copy is returned to the Director of Operations. Uptake is around 60% across all staff, however there has been slight recent decrease in uptake for Academic and Support and Technical staff (see Fig. 3.1). There is no evident bias by gender in uptake, however the overall uptake needs to increase. We believe the handing in of paper copies may be causing an underestimate of the number of people completing the form and having the interview with their line manager. We will move to a system of electronic submission of forms in the future, inform HoS of uptake more frequently and aim to improve uptake to 90% across all categories (see action NCP3.0).

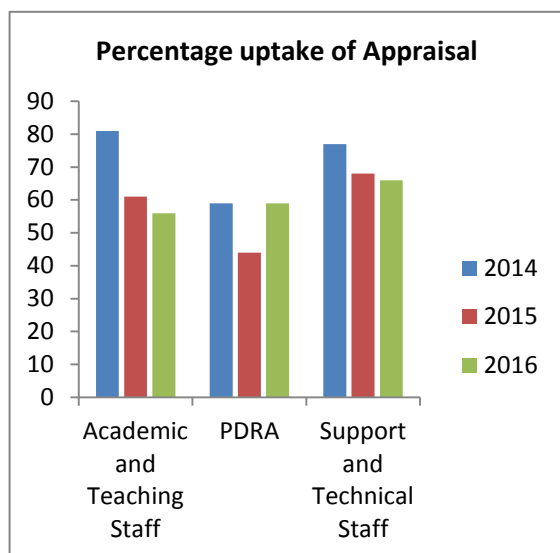


Fig 3.1: Percentage uptake of Annual Appraisals.

Our survey indicated that the two thirds of the department agreed that the ADR (previously known as ASR) was a useful process. The stand out groups with lower scores are the lecturers and those not disclosing role information. It is possible that part of this lack of perceived usefulness has to do with the amount of the form dedicated to outlining plans for 5 years in the future as well as for REF outputs. This has been streamlined to reduce duplication in the most recent iteration of the forms, so we expect an increase in the score next time.

The University runs a range of career development courses that are open to all staff, including PDRAs, that include career advice for people intending to either stay or leave academia.

3.2. Mentoring schemes

University and hence departmental policy has previously provided all academic staff with a research mentor and a teaching mentor. Previously these have been allocated on arrival rather than being relationships build between mentee and mentor. Two years ago the department implemented 'teaching mentor' roles within the departmental work load model, to give credit to individuals acknowledged as being excellent in teaching and in helping others to improve their teaching. The scheme operates in that people looking for mentoring in teaching approach any of the teaching mentors they feel comfortable with and work with them.

All non-academic staff and PDRAs are assigned a mentor on appointment. The purpose of this is to give staff someone outside of their management structure from whom they can obtain impartial advice on all issues including career advice. Evidence from the survey indicates that PDRAs are generally happy with their career advice and mentoring, however individuals have raised the possibility of having peer mentoring outside of their sections. This initiative will be taken forward by the PDRA DEC members (see action NCP3.2).

3.2.1. New Departmental Mentoring Scheme

Only 62% of respondents agreed that the department's previous mentoring was useful. In the last year we have also developed and implemented a new mentoring scheme open to all staff (including PDRAs) within the department. As a department we identified several missing elements of the original mentoring scheme and a general lack of engagement with assigned mentors. Staff identified a need for mentoring in areas such as work life balance, understanding promotions and developing their research.

Our new mentoring system pairs people according to their objectives for the mentoring period, with the explicit consent of both parties sought for each pairing. The mentors received training in active listening and mentoring techniques designed to build trust and openness. Credit in the workload model is given for administering the scheme and for participating mentors and mentees.

The scheme began operating in Oct 2016 with around 12 pairings, and as yet we do not have much feedback on its success. We intend to measure the success of the program via the administering of before and after questionnaires regarding people's confidence and engagement with various areas of activity (see action NCP3.1). We are however able to present a case study of someone engaging in mentoring specifically for support during applying for promotion (see Case Study 3).

3.2.2. Mentoring for post graduate students

Although formal mentoring does not exist for PhD students, we have expanded the level of monitoring and review available to students. As well as having quarterly and yearly report forms in which students and supervisors rate progress and indicate training needs, there are now two parallel streams of review meetings. One addresses the academic progress of the student, and is done by academic staff with expert knowledge in the area. The other addresses pastoral issues and is conducted by someone outside the research area (usually outside of the section) in order to allow the student a free space in which to raise issues they have about their supervision and the relationship with their supervisor. In the survey over 90% of respondents agreed that they understood progression processes in PhD, but only 55% agreed that the range of an individual's skills were valued during progress reports. We will investigate adjusting the quarterly report forms to allow comment on issues other than research work.

3.3. Changes to the Academic Staff promotions and probation procedure

Our prior champion action plan included changes to the promotions system and increased understanding of promotions (see actions PCP17, PCP18, PCP19). Our most recent survey indicated that two thirds of respondents understood the promotions systems, but both women and people on lecturer and senior lecturer grades were less likely to agree.

The term 'promotion' is only applicable to people in open ended academic roles. People on fixed term contracts and non-academic roles, apply for the new job at the higher grade instead. This process often involves moving between departments and is not returned in the HR data.

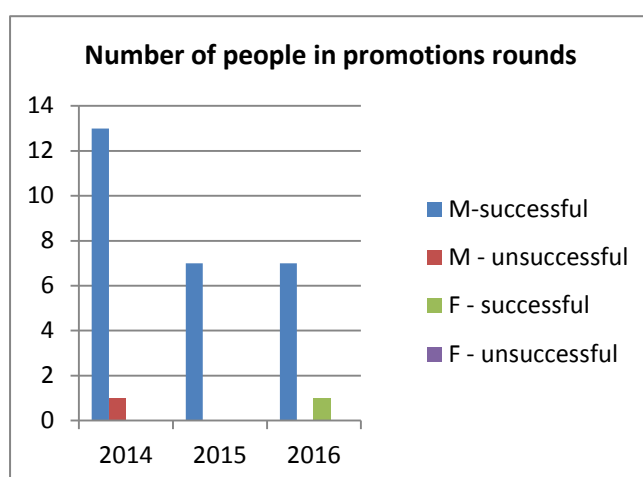


Fig 3.2: Promotions split by gender, year and success.

The first phase of our promotions process is a consultation and feedback phase within the department. This phase has undergone major changes since our practitioner application when the process involved documents from applicants been circulated to all members of the department senior to the applicant. This was felt to discriminate against people with personal mitigating circumstances that would not want those detailed widely known. The new process is conducted by the HoD with input from directors of research and teaching and section heads only (see case study 1).

The outcome of this first phase is advisory in that people may apply for promotion in the case that the feedback from the HoD is not favourable. Collating data for this part of the process is

complicated by the fact that application is encouraged even in cases where the candidate does not seriously expect success, in order for feedback to be provided for a more complete application the next year.

Due to changes in promotions policy at the University level, in the future all members of staff eligible to be promoted will submit an application each year for consideration by the HoD (see action NCP3.5). This will remove the requirement to encourage people to apply and will remove any remaining bias in application rates from different groups. It will be necessary for the HoD to ask for an indication from staff as to whether they are intending that their application be taken forward, and whether they therefore feel their application has been rejected if they do not receive support from the department, so that accurate data can be collated for monitoring purposes (see action NCP3.4).

The second phase of the promotions process the formal application. Over the last 3 years we have had 1 female and 27 male applicants for promotion who were successful, with only one male applicant and no female applicants being unsuccessful (see Fig 3.2). On the surface of it this would appear to indicate we have a very low applicant rate for women. It is important to note however, that there are only 9 female members of academic staff, and most them were either not eligible for promotion due to already being professors (5), or unlikely to be ready to apply due to being in role for only a few years (2).

This second phase is also currently being changed at the University level. We have moved to a 3 step academic stream of Assistant Professor, Associate Professor and Professor, and the criteria and documentation for promotions across all three streams of academic, teaching and research are under review. The DEC is being consulted and feeding back on the discretionary promotions criteria that the department can supply at the time of writing.

Our action plan demanded that 80% of staff agree that they understood promotion processes (see action PCP17). In spite of several attempts to spread this information in the department via discussion at the BoS, we have not yet hit this target. Professors and Readers are responding above this level however lecturers are not. This action item therefore remains open, particularly in view of the fact that we will need to continue to update staff on the new system as it emerges, and we aim to address it via updates at BoS and specific events aimed at lecturers (see action NCP3.3). Our action plan also demanded an increase in support for promotion and an increase in numbers going forward for promotion (see action PCP19). The former of these has indeed happened with several staff members signing up to the new departmental mentoring scheme seeking assistance explicitly with promotion (see Case Study 3). The University runs a course entitled 'Demystifying Promotion' which several members of the department attended this year. There has also been an increase in the numbers of people applying for promotion this year, which is likely a transient effect.

University policy has also change on the topic of probation with probationary periods for academic streams being reduced from the current three year period to a one year period.

3.4. Teaching fellow promotion

The department has not yet achieved its action plan item (PCP6) on supporting teaching fellows to gain promotion, however the HoD and Director of Education are currently working with teaching

fellows to complete the regrading process which is required prior to our current teaching fellows being able to apply for Senior Teaching Fellow. This action item remains open.

3.5. People leaving the department

We have not previously returned data on the people leaving the department, however we have now collated data on people leaving the department (see Table. 3.2). This data includes only those that left the university rather than those that transferred between university departments (due to HR recording protocols). Due to small numbers, we have integrated the leavers over the last three returned years (2013/14, 2014/14 and 1015/16) and there is no apparent trend in the number of leavers except in that the fixed term leavers have increased as the number of fixed term academic staff (almost all of which are PDRAs) has increased. The department turns over around a quarter of the fixed term academic staff per year, which is not unreasonable given the length of research posts usually applied for on PDRA grants.

The turn over by gender is the same as the proportion female in each group, indicating no bias in leaving numbers by gender.

The proportion of part-time leavers within the non-academic fixed term bracket is proportionate to the number of part-time workers in that group. The proportion of part-time leavers from the permanent academic staff is disproportionately high. However, two out of the three part time leavers were people working part time by choice in the lead up to retirement, and so we do not feel this is a cause for concern.

The numbers of people leaving open or permanent positions is very low and even accumulated over 3 years is only 9 males in academic posts, 6 males in non-academic posts and 0 females. This corresponds to around 2% of both the academic and non-academic work forces. The leavers from the permanent academic staff were evenly distributed across grades including one research only staff member, two lecturers, one reader and one professor.

	Academic fixed term	Academic open ended	Non-Ac Fixed term	Non-Ac open ended
Number over 3 years	82	5	10	4
% of leavers female over 3 years	22	0	40	0
% of leavers part-time	0	60	20	0
% of work force leaving per year	23	2	24	2

Table. 3.2 Numbers of people leaving the department by contract type.

3.6. Postgraduate student attainment

We collected information on the number of completed PhD theses by gender and found no disparity between the proportion of completions that were by female students and the intake of female students (see Table 3.3).

Academic year	Successful completions	Male	Female
2010/11	37	27	10 (27%)
2011/12	28	21	7 (25%)
2012/13	32	25	7 (22%)
2013/14	25	21	4 (16%)
2014/15	26	19	7 (27%)
2015/16	30	23	7 (23%)

Table 3.3 Completions of PhD by gender.

Further analysis is required by cohort, to discover if completion takes similar time periods for male and female students (see action NCP1.2).

3.7. Undergraduate student attainment

We have presented the issue of over representation of women in the BSc programme in previous applications, and we have seen a significant difference in final degree outcome for women and men. The former of these is similar to the national statistics, but we have a significantly poorer performance than the national average in terms of the degree outcomes for women on enhanced first degrees (we gave out 28% first class degrees to women as opposed to 50% in the national statistics). We have therefore extended our analysis to look at the pipeline and performance for women through all four years of the programme.



Fig. 3.3 The proportion of women in each year at each level organised by cohort.

These data, shown in Fig. 3.3, indicate that women in any given cohort leave the programme disproportionately, leading to a year-on-year reduction in the percentage of a given cohort that are female. We therefore began a thorough investigation of the marks by gender across all modules in the teaching programme.

We discovered that there is an overall gender gap in the average attainment between men and women (with women performing less well). This attainment gap is shown in Fig. 3.4, which demonstrates the existence of a gap but also that there has been a substantial narrowing of the gap in the last few years which is a cause for hope. The overall gap does not tell us the cause of the leaking pipeline through the programme so we further investigated the attainment gap in individual

modules. When looking at individual modules, averaged over the last 3-6 years they have been running, it can be seen that many particularly theoretical and astronomy based modules have higher gender gap but most worryingly our core foundations modules at levels 1 and 2 show larger gaps (see appendix figures A1.2 and A1.3).

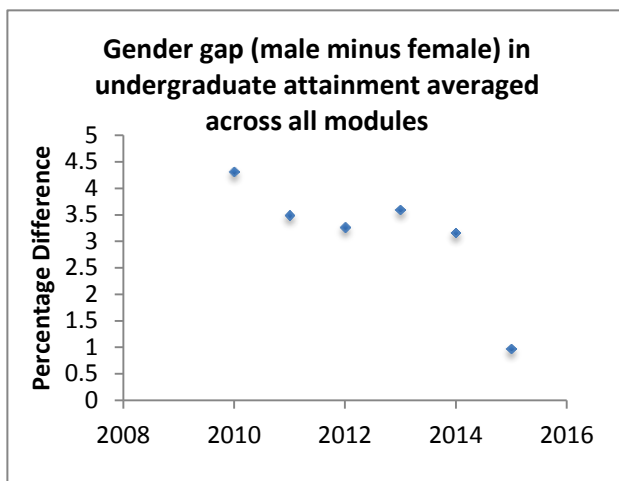


Fig. 3.4. Percentage average attainment gap between men and women as a function of time.

Histograms of module scores at level 2 were constructed to see if women were over represented in the area that would lead them to be either forced to move to the BSc or told it was in their best interests to move to the BSc, those people with a score less than 55% (see Appendix Fig. A1.1).

For the 2012/13 cohort (who did level 2 in 2013/14) it can be seen that this is indeed the case, with women representing 27% of the overall returned marks but 36% of those below 55%. It can be seen for the 2012/13, 2011/12 and 2010/11 cohorts that a lower bias in level 2 scores is correlated with a lower bias

in BSc uptake and hence the level 2 scores seem a primary cause of the BSc bias.

Since 2011/12 we have changed the way in which the level 1 and 2 courses are assessed. Weekly summative homeworks have been replaced with a system of self-marked homeworks with weekly workshops to support the course. At level 1, an additional emphasis on conceptual understanding has been created via the introduction of a concepts based exam in which there are multiple choice questions and questions that require estimation and sketching rather than detailed calculations. These changes were introduced to help support a wider variety of learning styles than the previous regime supported (see Case Study 2).

The results of these interventions can be seen in the equivalent chart for the current year at level 2, which shows that both the number of students scoring 40-55% has been reduced and that the over representation of women below 55% has been removed. There is still some evidence of bias at the highest grades, but we hope this positive change will result in less bias in female population between the BSc and MPhys classes. Crucially, for the current level 3 class, this finding is borne out, with women being marginally less well represented in the BSc class than the MPhys class.

This is a great success for the work we have put in to improve the course, however we are still finding the existence of a similar bulge in women attaining 55% or less in the first year double module Foundations of Physics (see Appendix Fig A1.1). This first year bulge has been somewhat reduced, but not removed, by the changes in the last two years so further interventions at Level 1 are necessary. For the last 2 years we have been investigating the incoming grades of our undergraduates as a function of gender, and more recently we have begun to look at non-traditional background students as well as students with disabilities. The latter two issues are being pursued in more depth by a research project within the department run by Dr. Petts. As the work is incomplete at the time of submission we do not include any hard data in this document, however we include an action item in our plan to liaise with Dr. Petts to ensure the data are brought to and discussed at

DEC, and that any recommendations arising from the work are implemented through the committee (see action NCP2.6).

3.8. Uptake of modules by gender

In terms of the uptake of various modules by gender there is little or no difference between the current year and the average over 3-6 years. The average shows a disproportionately low uptake of theory related courses by women and an over representation in Physics into Schools, although this course takes very small numbers of students so the statistics are poor (see appendix figures A1.4, A1.5).

We are starting a new module at level 2 this year call 'Physics into Society'. This module has been introduced to allow people a module choice at level 2, however it may move forward the point at which women begin to move away from theoretical physics. As reduced participation may lead to an increase in attainment gap we will need to monitor closely the impact of the new module on Theory modules in the future.

4. Principle 4: Departmental organisation, structure, management arrangements and culture that are open, inclusive and transparent and encourage the participation of all staff

4.1. Female Heads of Section and Committee Chairs

We have compiled data on the representation of women on committees and in the senior management team. The data in Table 4.1 shows that, with the exception of the DEC, women are under-represented in the key committees, in comparison to a target of 25%. This under-representation is greater when committee responsibilities are considered (see Table 4.2).

	Ed Comm	DEC	facilities	research	SMC	operations	Total % female
16/17	3/17	7/19	1/10	1/12	1/10	1/5	19
15/16	4/16	9/14	1/10	2/12	1/10	1/5	27
14/15	4/16	6/11	1/10	2/12	1/10	1/5	23

Table 4.1: Make up of key committees by gender

	HoD	HoS	DoE, DoR, BoE	4 course directors, international exchange, Nat Sci, disability, outreach, chair SSCC, chair PGSSCC, Impact, Space, Computing, Labs, DEC, employability, 5 champions	Total % female
16/17	0/1	0/5	1/3	2/21	10
15/16	0/1	0/5	1/3	2/21	10
14/15	0/1	0/5	1/3	2/21	10

Table 4.2: Data indicating uptake of committee responsibilities by gender

Many of the key committees have HoS as members and HoS are an important part of the way in which the department is promoted and perceived in the wider University context. It is therefore still a matter of concern that to date there have been no female HoS. The appointment procedure varies between sections, with IPPP section being headed by the appointed Director of the research institute, while all other sections hold elections to select leaders.

It is apparent that women are not putting themselves forward for selection or election to the HoS role. Our preliminary investigation into this phenomenon indicates the role is viewed as very time consuming, unrewarding and involving conflict resolution. This perception is not necessarily matched by the reality described by current HoS. Some of the confusion about the nature of the role may be down to the lack of a formal description of the role responsibilities. In order to remedy this situation we are planning to produce a description of the responsibilities of the role (in collaboration with all the current HoS and the HoD) and are proposing job sharing as a way to make the job more approachable to a wider variety of candidates including women (see action NCP4.1 and NCP4.9 which replaces PCP25). The level of credit in the workload model for this job will also be reviewed as it is perceived to be more time consuming than other roles that receive more credit.

4.2. Producing an inclusive learning environment for undergraduates

For the past 3 years we have asked an additional question on each module questionnaire which asks 'This year were there any circumstances connected with your Physics modules, or physical features of the Physics Department, which caused you to feel disadvantaged as a result of your age, disability, gender, race, religion or sexual orientation?', and asks those responding yes if they would like to give details. The number of people responding positively has remained consistent at around 3% every year (of those who responded). Of the free text comments left over three years, 22 made reference to issues where disability or illness has not been handled satisfactorily by the department, 8 made reference to sexism, and one to religious discrimination.

Past comments have been acted on by the department in that there is now more representation of female lecturers at level 1, and the compositions of level 1 tutorial groups are fixed such that no group contains exactly 1 female student.

The gender related comments this year concerned the imbalance in male and female bathrooms and the feeling that women are not called on in lectures, workshops or in labs with a proportionate frequency. The bathroom situation was unusual this year in that the main facility on the ground floor used by the students was out of action during building work for a period of time. This is unlikely to arise again. The issue of women potentially not being equally involved in tutorials workshops and laboratory sessions, however, requires action. We plan to observe in these settings, to discover the nature and extent of the problem, and to then propose a means to improve the situation if required (see action NCP4.2).

4.3. Student and Staff Training

All post graduate students involved in teaching must undergo university training prior to starting, which includes discussion of unconscious bias. The same is not true, however, for PDRAs or teaching or academic staff.

We have been making substantial progress on our action item to increase the level of D&E training for permanent staff. HR provides several training management or academic practice courses that include substantial elements of D&E training including unconscious bias (including the recruitment and selection training courses mentioned previously).

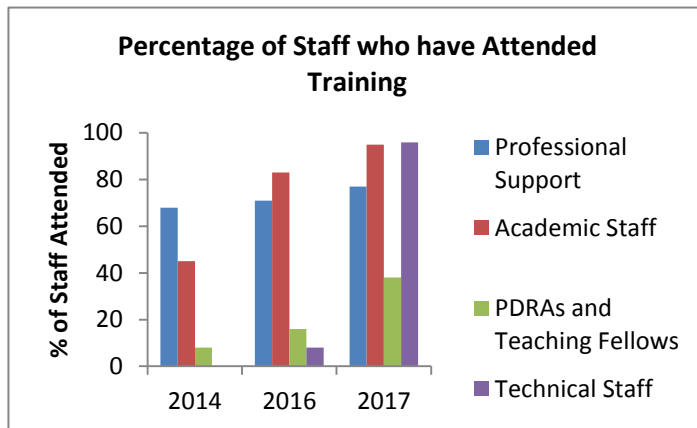


Figure 4.1: Percentage of staff in various categories that have received recent D&E training

Additionally they provide a course on specifically unconscious bias as well as a course on respect in the work place (that covers bullying and harassment). These courses run monthly in the University and are available to all staff to sign up for. In addition we have been running sessions within physics to enable as many people as possible to attend. We have run a session on all three of the primary D&E courses within physics and there has been an additional session covering the bullying and

harassment issues run in for the three astronomy groups as part of the move to the new building. We have devoted effort within BoS meetings to raise the profile of all these courses (and others pertaining to disability and mental health awareness) as well as increasing awareness that attendance of D&E courses will soon become mandatory as part of University policy.

The percentage of staff who have attended significant (a workshop or lecture) D&E training in the last 3 years has increased over the last few years, (see Fig. 4.1). The proportion trained has increased across all sectors, however there is some way to go in the support staff and PDRA brackets. The training of professional support staff is high enough that the remainder of this group could be asked to attend training individually. We will be running one further bespoke session for current PhD students and PDRAs (see action NCP4.3), and PDRAs will in future be required to do unconscious bias training before engaging in teaching (see action NCP 4.4).

As was previously mentioned the uptake of University induction by PDRAs has recently increased. The induction course includes relevant information taken from the unconscious bias and bullying and harassment courses, however induction may not be attended ahead of teaching starting. We have therefore decided to implement a departmental policy that PDRAs cannot engage with the teaching programme until they have attended the unconscious bias course (see action NCP4.4).

4.4. Postgraduate Diversity and Equality training

During the process of compiling data and investigating training procedures, we discovered that postgraduates are a missed demographic for D&E training outside of training to teach, and specifically in the areas of bullying and harassment. They do not fall under the staff based training systems of HR and do not get any training via colleges as the undergraduates do. Postgraduates may be one of the most at need groups for training, particularly in areas such as bullying and harassing behaviour and unconscious bias. In order to rectify this deficit, we applied pressure at the University wide level to attempt to get D&E training embedded in the induction activities for PhD students. This was successful and the first wide scale training of incoming PhD students took place in October

2016. We must now ensure that our previously existing PhD students, along with any students who arrive since induction was completed are provided with the same training (see action NCP4.3). To date we have covered around half of our PhD students and we are aiming to increase this to full coverage over the next year.

4.5. Social activities and opportunities for support and interaction

The department organises two cross department social activities each year, a summer barbeque and a Christmas party. These are held in different formats with the barbeque being held after hours at 5pm and the part being held during the afternoon. Both events are advertised as 'family friendly' and staff are invited to bring partners and children. We intend to extend these activities to include a third event held at lunch time during school holidays to allow a third timing option (see action PCP22).

On a less formal level the department has a well-used tea room that can hold around 80 people at a time and which forms a hub for social interaction. This space is also used to hold departmental events such as networking lunches with seminar speakers, coffee and cake mornings, and provides a less formal environment for training sessions. With the opening of the new physics building there are now two other hubs for social interaction, one in each of the Ogden centres. These spaces are used for more section based activities and so far it seems that the central tea room is still being used by people in the new building and social interaction is not becoming overly segregated.

Many more social activities are arranged by the sections. Sections host welcome events for incoming PhD students, cake and coffee mornings, summer barbeques Christmas meals yearly as well as one off leaving events and viva celebrations. Some sections also organise weekly sporting activities including badminton, cycling, and rock climbing. Some sections also have weekly pub trips.

The range of activities includes in hours and out of hours and covers a wide range of activities, which should promote inclusivity.

4.6 Bullying, Harassment and Sexual Violence

The University has a very strong policy on Bullying and harassment that we reiterate on our departmental website. 77% of respondents in the survey indicated they agreed that we had a clear policy on bullying and harassment. Only 60% of respondents said they were aware of their Harassment contact. Since the survey we have provided additional staff and student training in this area as well as now advertising the University Harassment contact network on our website. We also indicate on these pages that members of the DEC have received training to help people find the right route to reporting any incident they experience. We have held training sessions specifically on this issue for the DEC, for all staff (including PDRAs, technical staff and support staff) and for incoming and current PhD students.

The University has created a Sexual Violence and Misconduct Operations Group that is currently rolling out new processes, resources and training. We are advertising these resources (particularly the sign posting of pathways to report and receive support) on our website and highlighting them at BoS meetings through our standing agenda item.

We have recently added two new strands of interaction and support. The first is a 'Suggestions box' which provides a physical means of raising issues, making complaints and submitting ideas on D&E topics to the DEC in an anonymous way (see action NCP4.5). Any comments received in this way will be processed by the Chair of DEC. We are aware that this may lead to us receiving anonymous accusations of impropriety, and we will liaise closely with the relevant HR contacts if we do receive such material.

The second strand is the establishment of departmental 'listeners'. The idea of this scheme is to identify people with training in listening and sign posting for bullying and harassment, who are willing to be contacted by people in the department who wish to talk to somebody confidentially outside of any formal context. We hope this will recognise the need of individuals to be heard without any necessity for action to be taken as a consequence. Both of these strands are new this year and will be monitored actively to see how they progress (see action NCP4.6).

4.7. Inclusive images

Awareness around the idea of using positive, inclusive images has been growing in the department and the DEC frequently receive comments and information on this topic. For example it was noted by academics that the putting up of photographs of previous Heads of Department had resulted in a string of white, male portraits. In a response to this issue, the DEC generated a series of posters highlighting the achievements of female physicists that are now displayed throughout the department. We also received comments from feedback from staff when changes to the departmental website resulted in certain areas losing any diversity of representation. We have responded by conducting an audit of the departmental website, which will now become a yearly activity going forward (see action NCP4.7). As a further example of the embedding of this idea, the person in charge of beginning a departmental Instagram and Twitter account, sought guidance from DEC before beginning the project explicitly to ensure that the output of the department on social media would project a positive message of diversity. This discussion has resulted in ideas around profiling the female members of the department, and also around ensuring that outputs from all areas of the department are highlighted rather than only those from areas that have traditionally been more actively engaged in self-promotion.

The department is also very conscious of the image it portrays during open days and outreach activities. We are aware that it is important for prospective students to encounter a variety of people during their visits, however it is important to balance this against the overloading of minority staff groups. As our survey responses indicate, female staff are already reporting that they are asked to perform duties due to gender, and so we may not be able to increase female staff visibility in these events without causing further issues.

We have held and will continue to hold annual events to celebrate International Women's day. This year's event featured research talks from predominantly female undergraduates who had excelled in various aspects of the course. We also re-launched our 'Prize for Graphical Excellence' (a prize awarded to the student in each year group that makes the best use of graphical means to convey data) this year and renamed it 'The Florence Nightingale Prize for Graphical Excellence' in recognition of her unique impact on the way in which data is communicated. The launch involved a presentation on her work and the way in which it changed policy at the time, and was followed up by the production of a poster advertising the prize and the reasons behind the name.

4.8. Seminar Speakers

Our prior champion action plan demanded an increase in female representation in seminar speakers (see action PCP24).

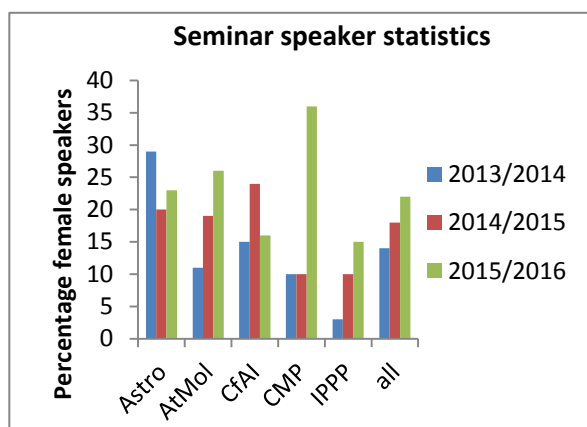


Figure 4.2: Percentage of staff in various categories that have received recent D&E

raise the profile of representation at conferences and workshops and will develop a checklist based resource for people in the department organising events prompting them to think not only about representation, but other issues including provision of childcare (see action NCP4.8).

The HoD and Chair of DEC have continued their efforts to raise understanding within the department on the importance of getting in a representative number of female speakers, both in section seminar series but also in any workshops or conferences organised by departmental members. The data from the last 3 years show a steady increase in the proportion of female seminar speakers, that has now reached the 22% and there has been a notable improvement in the IPPP and CMP sections (see Fig. 4.2). We are therefore on course to meet our target of 25% by 2018. We plan to continue to

4.9 Research Excellence Framework process

In the previous REF cycle the department used criteria based assessments in order to determine which staff would be submitted. This was done to prevent subjectivity or unconscious bias from influencing the decisions. The department returned female staff in proportion to their numbers in the department, producing no evidence of gender bias. For the next cycle of REF we are committed to building in monitoring of peer assessment of outputs for gender (or any other) bias from the outset as well as using criteria based methods for selecting which staff to submit (if departments are not asked to submit all staff). All members of the peer assessment team have undergone D&E training including unconscious bias and the Director of Research will monitor each round of assessment and report the findings to the DEC (see action NCP4.9).

4.10. The Workload Model

The physics department has had a detailed and comprehensive workload model for many years and has been used as example of good practice throughout the Faculty and University. The model is constantly under development in that new activities are added as they appear and the credit given for various roles changes as the roles change.

The workload model includes credit for all teaching and related activities (including lecturing, laboratory teaching, supervision, tutoring, demonstrating, examining, marking, activity organisation and leadership and teaching development activities). The model also includes credit for administrative and management tasks (including undergraduate and postgraduate admissions, heads of committees, sections and the department, directors of education, facilities, research and REF, and chairs of committees) and for community service tasks (including mentoring, outreach,

supported progression, open days, internationalization coordination and a variety of issue champions).

The model operates via the total hours to be done being shared equally across all academic staff according to the number of FTE contributing to the programme. The FTE value varies due commonly to the number of staff on research and other forms of leave, while the total teaching load varies due to the amount of contribution made by PDRAs, who are given the option of participating in teaching activities as a career development opportunity assuming their contract allows this. The remaining load is then split on a pro rata basis amongst the academic staff. As many teaching duties appear as large chunks of time, it is not possible for everyone to do exactly equal loads each year and hence the model includes carry over (extending one year) so that loads can be balanced fairly over time, if not always within each year.

Research activities are not included in the workload model except where time is bought out by paying for teaching replacement as part of a research grant. An example of this is that an academic running a programme grant might a proportion of their time funded on the grant, and would therefore contribute only 50% of a full load to the workload model, with the remaining 50% being covered by a teaching fellow hired using the funding from the grant.

The full model is published in development and in its final version for all academics to see. In this sense the model is entirely transparent. Any large changes in the credit given for various roles is discussed at the BoS before implementation making the process of allocating the credit equally transparent. What is not entirely transparent is the way in which the percentage of FTE each academic puts into the model is determined. This is due to the fact that staff may have this number altered for potentially private and sensitive reasons including parental leave, illness, or performance management. We aim to make this aspect of the model as fair as possible by publicising the possibility of having your contribution modified for such reasons. For example in the parental leave area of the website we announce that people have previously requested reduction in the workload model when returning from parental leave.

Research leave operates on a sabbatical basis with staff accruing one term of leave for every seven terms contributed, and this is again discussed frequently at BoS meetings to ensure everyone is aware of their entitlement. Cases for research leave must be made and approved in consultation with the Director of Education. While it is technically possible for an application of research leave to be denied, this has not occurred in recent history. Similarly uptake of leave is not currently biased by gender, though we will continue to monitor this.

One way in which we are currently working to improve the transparency of the work load model is in improving the descriptions of included roles. There is a current DEC initiative to reduce the impact of individuals becoming incapacitated, both in terms of the work required to pick up a job, and the pressure an individual feels if they believe a job cannot be done without them. We discovered as part of this process that there were a few roles with no official description at all, including the HoS role. Many of the role descriptions are rather generic having been inherited for University level documentation. We believe that full transparency requires that all jobs be described at the level of listing responsibilities that must be carried out, but also at a level of describing the context of the job and the way in which it is usually performed. We will therefore be performing an audit of all of the

job descriptions and ensuring that staff can read about the responsibilities and activities of a role before taking it on (see action NCP4.10).

As a further part of the same work, we have realised that staff with complex health issues, or caring responsibilities are potentially disadvantaged by taking on jobs in which they are the only point of contact, and which would require significant effort to hand over. It would apply less pressure and be a better management strategy to reduce the number of single point failure modes within the programme. Similarly it is possible that part-time staff may be disadvantaged by certain jobs that require large amounts of time sensitive work to be carried out against tight deadlines. We are therefore intending to increase the annotation of jobs within the model to indicate where job sharing would be beneficial and also which jobs may require additional management in order to avoid part-time workers having to work extra days to complete work for deadlines (see action NCP5.5).

5. Principle 5. Flexible approaches and provisions that enable individuals, at all career and life stages, to optimise their contribution to their department, institution and to SET

5.1 Flexible and part-time work

It is University policy that all staff may apply for flexible working or part-time work and have their case considered. The HoD is committed to upholding this policy in the department, and supports a wide range of applications every year (see Case Study 4).

We have been working to improve communication of departmental and University policy in this area, via the update to our website. The latest survey indicates all sub-groups agree that there is support for flexible working. We plan to increase the visibility of part-time work by posting case studies on the website (see action NCP5.1).

Our previous champion action plan demanded investigations of uptake on flexible working and the duties given to those taking it up (see action PCP26). We have many people working part-time, around 10% of the department. As mentioned in the previous section, we identified a few issues with the way in which work is allocated to people working part-time and have identified that part-time workers can feel pressurized to come in on days that are not contracted to work if they are given roles that they feel can be done better over more days. It is important therefore to develop a system of work allocation that takes into account the more exaggerated effects of high load pressure points in the year on part-time workers (see action item NCP5.5).

One factor that may hold people back from requesting to work part-time, is the in principle permanence of such a move, and it would potentially encourage more staff to use the option if they knew they could return to full-time work in the future. The approval of changes in contracted hours lies outside the department and University policy does not currently allow applications to reduce hours for a fixed period of time to be made. University policy does allow for trial periods of part time work (up to 3 months), which may give staff the chance to discover if the decision to work part-time is right for them, and we advertise this option on our website.

We will continue to work with the University to make provision for staff to plan to return to full-time work, as well as investigating extending the part-time work trial period from 3 months (see action NCP5.5).

5.2 Work-life balance

The JUNO survey indicated that 85% of respondents agreed that the department supports flexible working and part-time working, only 26% agree that part-time work will not affect your career progress. From a policy perspective the departmental and University level promotions processes are designed to ensure that part-time work is not a disadvantage on promotion. This is done via the use of criteria based processes in which quality and not quantity are specified. The most recent changes to the promotions process explicitly state that where a number of outputs is specified, this is reduced on a pro rata basis for part-time work.

It would appear, therefore, that staff either do not believe this system functions in practice or they are not referring to the formal process of promotion when they commented on progression.

The comments in the survey regarding the need to work outside of 9-5 hours indicate this is a broader theme within the department. It appears that many staff believe it is not possible to be successful in your career without working many additional hours, and that part-time working will compound this issue. Staff have commented more recently that it would not be possible to reach the quality of research output required by the new promotions criteria while working part-time, even though the number of outputs is reduced for part-time work. The level of this opinion appears to vary by research section, indicating that external pressures from certain research fields may be a potential source. The number of hours worked per week by academics considered to be successful varies widely, and many academics indicate they enjoy working the additional hours and do it through choice.

We would like to work towards a situation in which people were not feeling forced to work additional hours that they did not want to, and that the free choice to work additional hours made by some people within the department was not affecting anyone else, either in terms of feeling obliged to follow suit, or in terms of affecting their chances of promotion.

This is a complex problem to unpick, in that it is a mixture of fact and perception, and a balancing of competing personal freedoms. We believe we will need to do substantial work to isolate the underpinning issues and formulate a longer term strategy based on what we find (see action NCP5.6).

5.3. Core departmental business hours

Within our most recent staff survey we added a question asking people to indicate the hours within which departmental business was not interfering with caring responsibilities or part-time work. Very few people reported that having core departmental business start after 10 am would make any difference to them, however a significant minority reported that finishing at 3 pm would be helpful. The majority of those reporting this, also reported having either children or caring responsibilities. The substantial departmental business that runs after 3pm is committee meetings. We are investigating the number of times this occurs and which committees often run past this point, and

will act to ensure that at least 90% of core departmental business is completed by 3pm (see action NCP5.3).

Other activities running after 3pm are due to teaching. We have a University timetabling system which can accept requests for specific activities to happen within certain time windows. We will endeavour through the website and BoS meetings to make sure everyone is aware of their right to make specific timetabling requests.

5.4 Parental or caring leave

The department has had several members of staff take up maternity leave in the past three years and several members taking paternity leave. We have yet to have an application from staff to use the Universities shared parental leave option. We do not believe that this option is well known or understood so in addition to publicizing it on our website, we will announce it in the BoS meetings and invite interested staff to a coffee morning to discuss it. We will add a question to our survey to determine if we have succeeded (see action NCP5.7).

All of the people who have taken parental leave have returned to work. Several have negotiated a move to part-time work on their return.

The University has a policy of giving one term of research leave to parents returning from leave if they have been away for 26 or more weeks. The department supports this policy and advertises it on the D&E website. This policy has however, been criticised due to small number of people it covers, with the majority of people taking less parental leave than this. Within the department we have arranged reductions in admin and teaching load for people returning from parental leave on a case by case basis. We will formalize our approach and advertise the new policy once it is agreed (see action NCP5.8).

6. Summary

In summary our **main achievements** across the time since our initial practitioner award are:

- (a) Clarifying our communications pathways for both action and dissemination, including new web and physical resources.
- (b) Enacting a more inclusive promotions process for academic staff.
- (c) Launching a new additional mentoring scheme.
- (d) Reducing the bias in male and female performance and degree selection for undergraduates.
- (e) Increasing the training levels for staff in all roles in the department and PhD students.
- (f) Increasing the visibility of female role models through seminar invites and posters.

The **key challenges and areas of action** for the next four years will be:

- (a) Increasing the number of jobs offered as supporting part-time or flexible work.
- (b) Increasing the size and diversity of our applicant pools across all levels of recruitment.
- (c) Developing PDRA engagement with D&E, and work on issues raised by that group.
- (d) Continue work to reduce the residual gender gap in undergraduate attainment at level 1.
- (e) Understanding and tackling perceptions of part-time work and working outside hours.
- (f) Extending our analysis of data to include other forms of diversity.

Appendix

A.0. Membership of DEC and the Juno Working Group

Chair of DEC: Elizabeth Bromley

Beth Bromley will be an Associate Professor in biophysics (from Oct 2017). She has been a member of the department for 7 years and served on the DEC for 5 years, two of which were as Secretary, before taking on the role of Chair. Her previous interests in D&E were in widening the breadth of learning styles the department was supporting, where she chaired a committee that revised the delivery of the undergraduate taught programme.

Secretary: David Cerdeno

David Cerdeno is an Assistant Professor in Particle Physics. He did his PhD at Madrid Autonoma University and postdoctoral stays at Hamburg University, Durham University and at the Institute for Theoretical Physics in Madrid. In 2014 he was appointed as a Lecturer at Durham University, researching fundamental aspects of particle physics and cosmology at the Institute for Particle Physics Phenomenology. He is interested in making science inclusive and coordinates a wide range of outreach events.

Head of Department: Simon Morris

Simon Morris has been Head of the Physics department in Durham since 2014. Before that he held the role of Director of Education for 5 years. He is the deputy chair of the IoP Degree Accreditation Committee and is serving on the IoP Curriculum Committee. He is currently one of two UK representatives on the European Southern Observatory Council. Before coming to Durham in 2001, he held posts in Canada and the US for 16 years. He is also current Chair of Governors for Durham Johnston Comprehensive School, a school with ~1600 students (11-18), which was recently rated as outstanding by OFSTED.

JUNO working group: Baojiu Li

Baojiu Li is an Associate Professor in theoretical astrophysics. He has been a member of the department for six years and joined the DEC last year, mainly responsible for the analysis of diversity & equality questionnaires. He is interested in understanding the perception and need of different groups within the department and finding the best practice to ensure diversity and equality.

JUNO working group: Ruth Gregory

Ruth Gregory is a Professor in both the Mathematics and Physics departments in the Centre for Particle Theory. She has served on several high level committees in research councils, government, and other Mathematics or Physics professional bodies. She is currently a member of the advisory panels for the Leverhulme Trust, SUPA, AARMS and a judge for the Buchalter Cosmology Prize. She was a member of the Implementation Group for Women in SET, a ministerially appointed group established to oversee the Government strategy for women in SET in the mid 2000's.

JUNO working group: Clare Woodward

Clare Woodward is the departmental Director of Operations. She was appointed as Fixed-term Lecturer in Physical Chemistry at Durham in 1995 following post doc positions at Yale and Sussex Universities. She switched to an administrative career in 1998 as Academic Administrator in the Department of Physics and was promoted to Director of Operations in 2005. She has been a fan of WISE, The Athena Project and SWAN initiatives since their early days and was the Juno contact when the department signed up as a Supporter of the 5 Juno principles in 2008.

Technical Staff member: Reece Stockport

Reece Stockport is a Level 2 Laboratories Technical Supervisor. He has worked in the department for seven years and obtained a degree in Electrical and Electronic Engineering studying part-time with the strong support of the department. I am a member of the departmental Outreach Team.

Professional Support Staff member: Gwynned de Looijer

Gwynned de Looijer worked as a research and development manager and HR manager at the TNT head office in The Hague, before returning to university to read Theology and Religion. She received her PhD from Durham University in 2014, taught Anthropology of Religion in the Theology and Anthropology departments at Durham, and is currently Research Administrator in the Department of Physics. As such, she represents the Admin team within the DEC. Diversity and Otherness have been key to Gwynned's research interests, and she has been involved in committee work for various charities dealing with issues of diversity and equal rights.

Undergraduate member: Nadar Khonji

Nadar Khonji is a first year physics student, who came through a Foundation year, after previously having a career in medicine. Being a mature student and of mixed ethnic origin, he has a particular interest in promoting equality of opportunity for the whole student population. I am also on the Physics SSCC and an active member of the physics society.

Undergraduate member: Catherine Baddeley

Catherine Baddeley is a third year undergraduate. She decided to become involved in the DEC to help encourage more women to study Physics at university and beyond as well as making themselves more heard within the department. She has also been on the Exec Committee for the Durham University Physics Society which she used to create greater links between the Diversity and Equality committee and the undergraduate body.

Postgraduate member: Andres Olivares-Del-Campo

Andres Olivares-Del-Campo is a second year PhD student at the Institute for Particle Physics Phenomenology. He is Spanish and left home to study at an international school when he was 16. Two years later he moved to the UK for education and has been here since then. These experiences made him appreciate the importance of diversity and equality in the work place and he is happy to contribute to this issue at Durham University.

Postgraduate member: Andrew Cheek

Andrew Cheek is a PhD student in the particle physics group (IPPP) studying Dark Matter. He grew up with cultural diversity all around him and spent a year of his undergraduate studies in Singapore. These experiences helped him appreciate the need for people from all backgrounds to feel comfortable and welcome. He is interested in E&D primarily because it seeks to support people with alternative backgrounds and lifestyles in a fair way.

PDRA member: Julie Wardlow

Julie Wardlow is a research fellow in the Centre for Extragalactic Astronomy. She attained her PhD from Durham and spent 5 years working in the USA and Denmark before returning to the department. Her interest in equity and diversity has been fuelled by experience as a woman in science, participating in groups with different cultures and views to diversity, and studies of the effect of gender and race (in particular) on hiring, publication, and funding outcomes. She has seen first-hand the immediate effect that particularly well-run training and followup discussion can have on participants, and, amongst other things, aims to help people think about the impact of their everyday interactions on diversity outcomes.

PDRA member: Marc Etherington

Marc Etherington studied for his first degree in Physics at Durham University from 2007-2011, where he specialised in organic electronics in his final year project. He continued his research in this area during his PhD in the Optoelectronics group in Cambridge. In 2015 he returned to Durham as a Research Associate on the EU Horizon 2020 funded PHEBE project and took up positions on the Diversity and Equality Committee and Research Staff Association Committee. Through these roles he hopes to contribute to a greater sense of community both in the department and wider university.

Teaching Fellow: Pippa Petts

Pippa Petts has been a teaching fellow in the department for four years having previously worked in the nuclear industry after completing a PhD at York. She is a wheelchair user with a complex disability and works part-time while also caring for her young family. Pippa has an interest in supporting non-traditional students in particular with transitions into and through HE and is involved in Physics Education Research.

Disability Representative: Matt Jones

Matt Jones is an Associate Professor (Reader) in Experimental Atomic and Optical Physics. He arrived in Durham in 2006 on a 5 year EPSRC Advanced Research Fellowship, becoming a lecturer in 2011. He is currently the departmental Disability Representative for physics, and suggested that this role should have a link to DEC this year. He is also a member of the committee for the North East branch of the Institute of Physics.

Academic member: Alastair Edge

Alastair Edge is a Professor of Astronomy and Previous departmental Juno Champion. I arrived in Durham in 1998 on a Royal Society University Research Fellowship and was appointed to a lectureship in 2005. I have been involved in the Equality and Diversity work within the University since 2011.

Academic member: Marek Szablewski

Marek Szablewski is an Associate Professor and member of the Centre for Materials Physics in the Department of Physics and has been at Durham University since 1992. Until 2006 he worked as a contract researcher on fixed term contracts.

Marek has been an elected member of the Academic Electoral Assembly and the University Senate since 2004. This coupled with his work as a Personal Cases officer for DUCU, and being the current elected local association vice-president has given him extensive insights into how many diverse parts of the University function and the issues which affect both staff and students within them. He has been member of the University Concordat Implementation Group, which focuses on improving the working conditions and career progress of contract research staff, as well as a being a member of the Dispute Resolution Steering Group.

Academic member: Simon Gardiner

Simon Gardiner is a Professor in Atomic and Molecular Physics and Associate Director of the Joint Quantum Centre (JQC) Durham-Newcastle. He started as a lecturer in Durham in 2005, and was made Professor in 2014. This followed postdoctoral positions in Colorado, Oxford and Potsdam, doctoral study in Innsbruck, and undergraduate study at the University of Waikato, New Zealand.

In Durham he has at various times been responsible for outreach, exchanges, employability, postgraduate admissions in atomic and molecular physics, leadership of the atomic and molecular physics research section, and has been Director of Education (responsible for the teaching programme and duty allocation) since 2015. He has also advised the Universities of Sussex, Newcastle and Oxford on various aspects of their undergraduate physics provision.

Academic member: Chris Saunter

Chris Saunter is an Assistant Professor in Astronomical Instrumentation. He was a PDRA in the department between 2007 and 2014, and was appointed as a lecturer in October 2014. I took advantage of flexible funding environments within the department to take on a 20% teaching fellow role to help diversify my CV.

Academic member: Celine Boehm

Celine Boehm is a Professor in the Institute for Particle Physics Phenomenology. She has been a member of the department for more than 6 years and is currently the leader of the Theia space mission collaboration that includes more than 200 people from 22 countries. She is also the leader of one the Euclid work packages and a member of the CTA collaboration. She has taken numerous roles in committees and has served the IOP for more than 4 years (including as secretary of the Astro-particle Physics group and liaison officer between the Astro-particle and Particle Physics groups). Prior to 2011, she was a CNRS senior researcher in France. She is interested in helping the Physics department to ensure diversity and equality.

A.1. Additional evidence base

A.1.1. Level 1 and Level 2 undergraduate attainment data

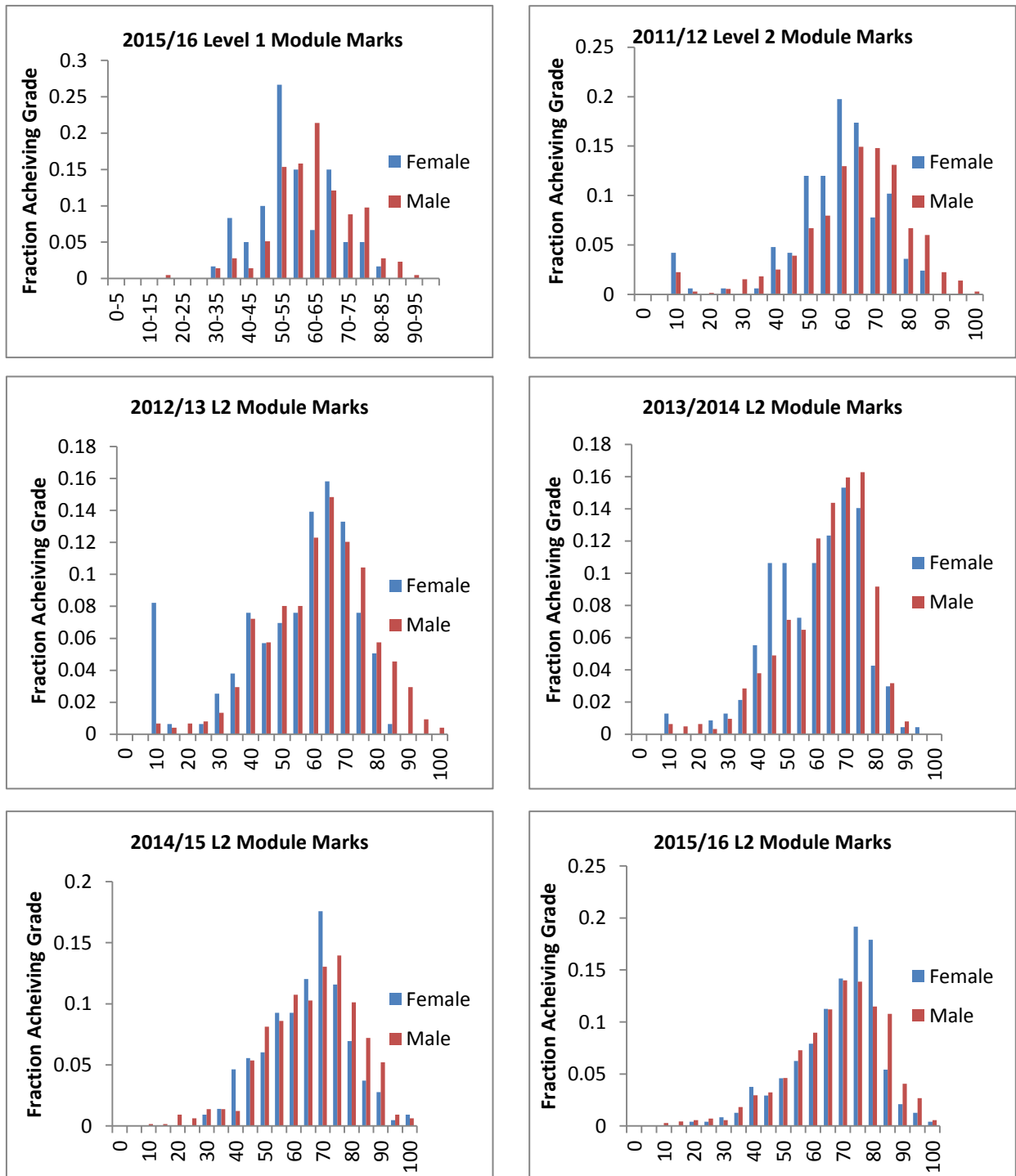


Fig A1.1 histograms of module marks at levels 1 and 2 split by gender. Only the most recent level 1 data is shown in order to indicate the remaining issues at level 1, previous years show the same trend.

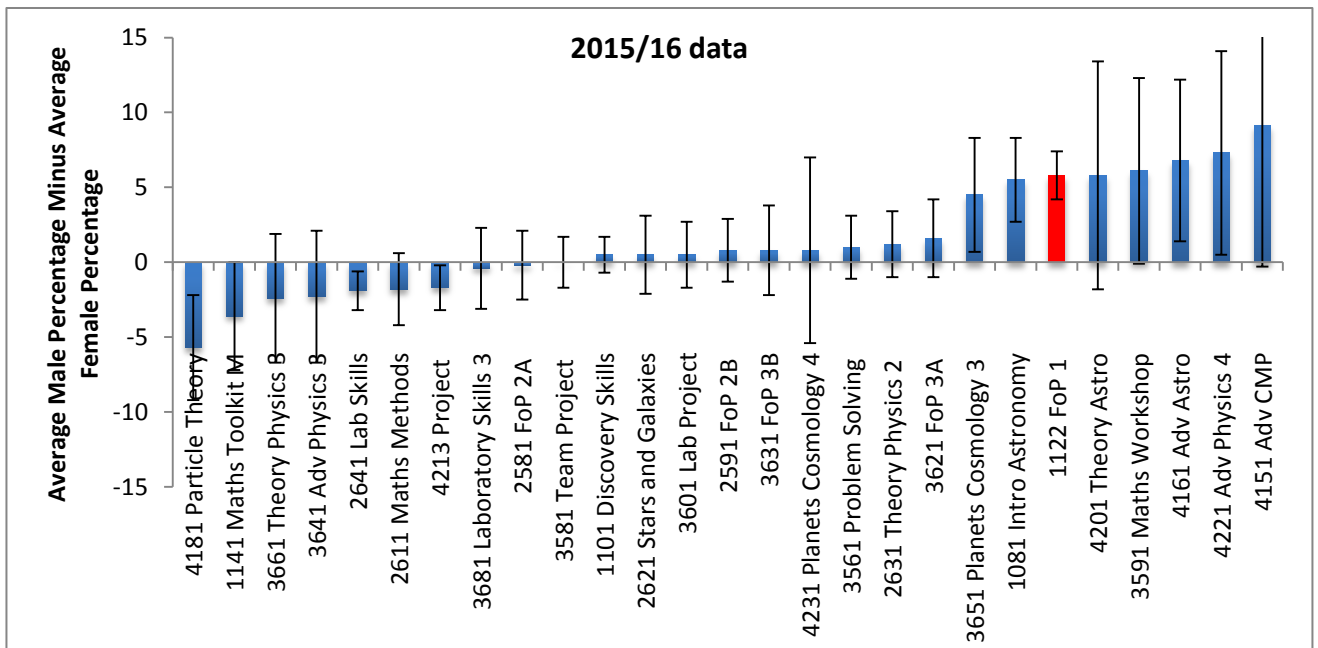


Fig. A1.2 Average gap in mark for all modules in 2015/2016. The red bar indicated the core foundations of physics course taken by all first year students.

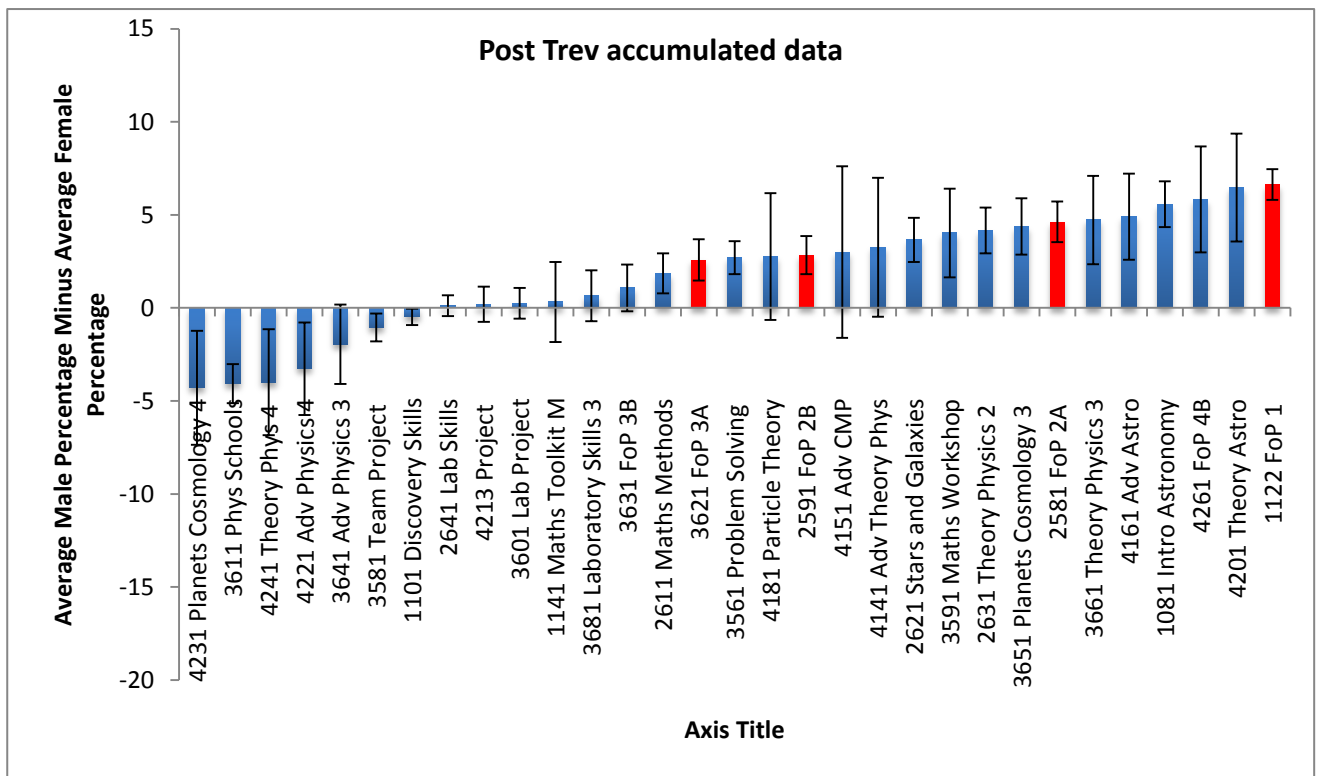


Fig. A1.3 Average gap in module marks accumulated for all years the post Teaching Review courses have run. Red bars indicate core course taken by the majority of students that are of particular concern.

A.1.2. Module uptake by gender

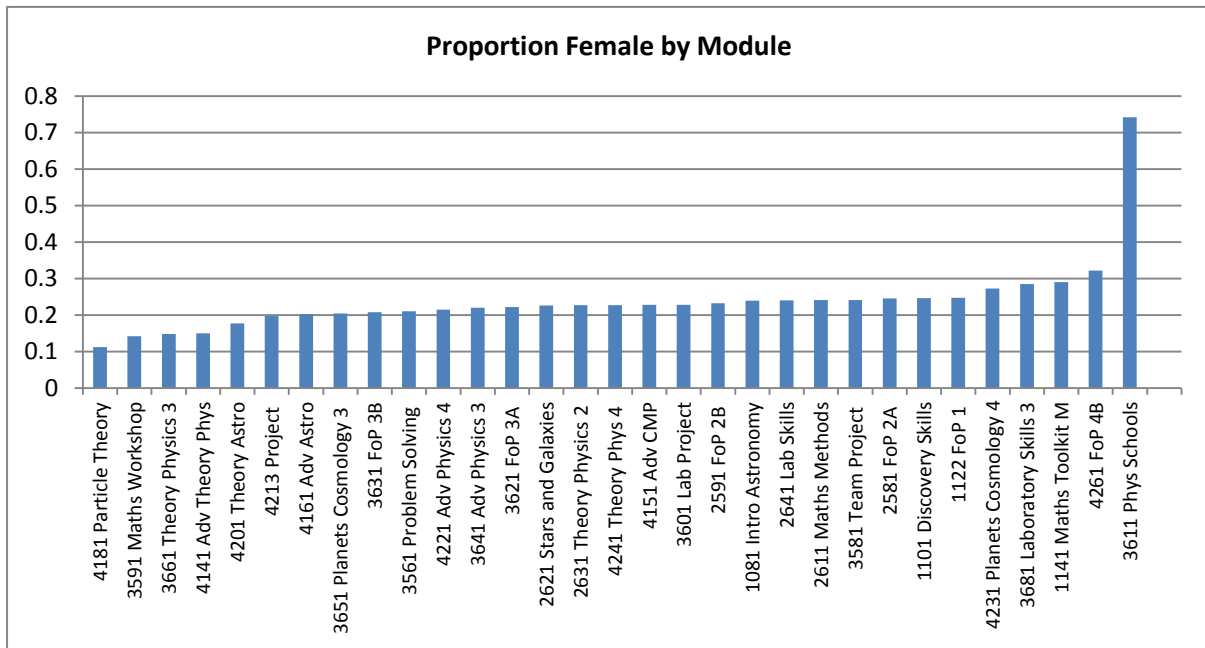


Fig. A1.4. Proportion of students on course who are female, average over the 3-6 years the courses have been running.

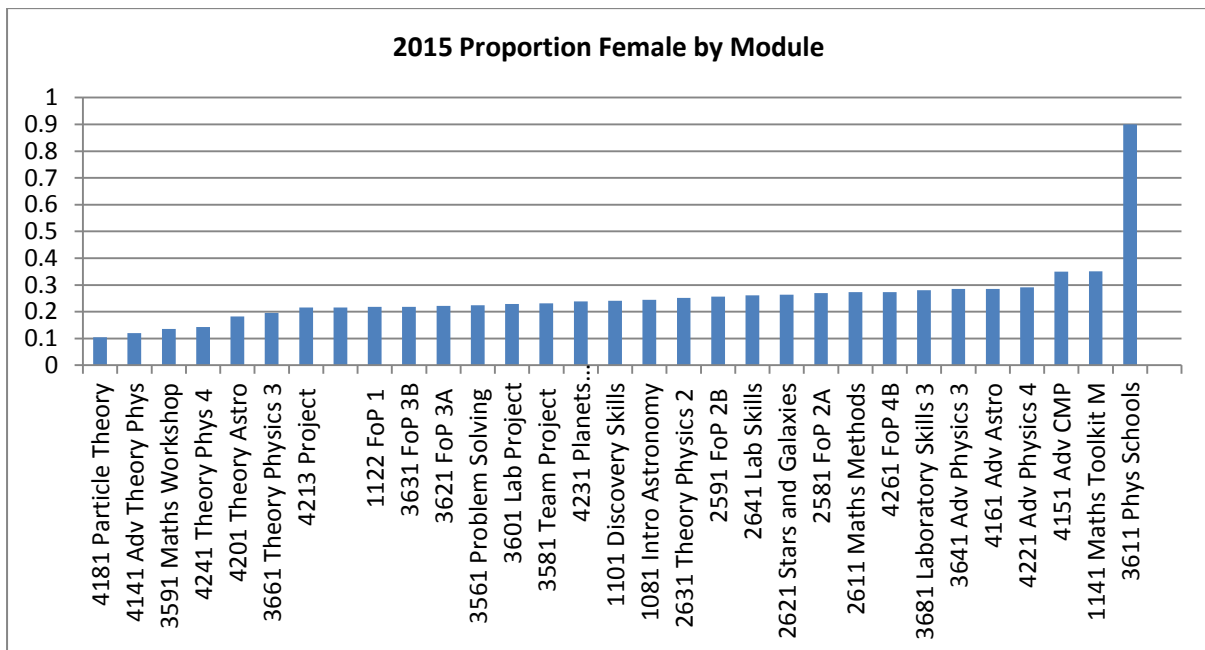


Fig. A1.5. Proportion of students on course who are female, in 2015.

A.1.3. Undergraduate Recruitment and Selection data

	Applications		Offers		Firm Accepts		Final AS12 Accepts	
Physics	M	F	M	F	M	F	M	F
2012/3	952	266(22%)	444	139(24%)	134	45(25%)	117	39(25%)
F300	183	53	75	24	17	4	9	4
F301	535	149	269	82	89	30	82	26
F344	126	17	67	10	17	2	15	2
FF3N	108	47	33	23	11	9	11	7
2013/4	1077	302(22%)	514	169(25%)	143	48(25%)	129	43(25%)
F300	225	72	91	39	22	8	16	7
F301	605	157	310	90	92	30	84	28
F344	130	22	77	11	16	3	16	2
FF3N	117	51	36	29	13	7	13	6
2014/5	1023	312(23%)	558	177(24%)	160	51(24%)	131	41(24%)
F300	214	68	100	43	33	8	23	5
F301	561	155	332	93	92	32	79	29
F344	125	31	78	20	19	5	17	2
FF3N	123	58	48	21	16	6	12	5
2015/6	855	265(24%)	624	197(24%)	203	64(24%)	129	37(22%)
F300	189	54	128	33	44	10	26	4
F301	452	144	346	113	113	42	72	25
F344	117	21	88	17	24	1	16	1
FF3N	97	46	62	34	22	11	15	7

Table A1.1 Recruitment data for undergraduate degree programmes.

Institution X	(X F & D86 I) / (X I & D86 F)	(X I & D86 D) / (X D & D86 I)	(X F & D86 D) / (X D & D86 F)	(X D & D86 D)	(X blank & D/I/F offer)	
Aberystwyth University (A40)	0/0	1/0	0/2	0	0=0+0+0	3
Cardiff University (C15)	0/3	2/1	2/3	7	2=1+0+1	20
Durham University (D86)	0/2	3/0	3/3	421	7=3+0+4	439
Heriot-Watt University (H24)	0/0	0/0	0/3	2	0=0+0+0	5
Imperial College London (I50)	17/2	18/18	61/29	42	71=35+3+33	258
Keele University (K12)	0/0	1/0	0/1	1	0=0+0+0	3
Kings College London (K60)	0/0	2/3	2/2	12	2=1+0+1	23
Lancaster University (L14)	1/10	15/4	7/32	28	4=4+0+0	101
Loughborough University (L79)	0/0	1/0	0/5	3	0=0+0+0	9
Newcastle University (N21)	0/2	0/0	3/5	2	0=0+0+0	12
Northumbria University (N77)	0/2	1/0	0/3	0	0=0+0+0	6
Oxford University (O33)	10/0	0/0	81/0	0	280=121+18+141	371
Queen Mary University of London (Q50)	0/0	1/0	0/1	1	0=0+0+0	3
Royal Holloway and Bedford New College (R72)	0/2	3/1	0/3	4	3=1+1+1	16
Surrey University (S85)	0/4	3/0	0/6	5	1=1+0+0	19
Teesside University (T20)	0/0	0/0	0/1	0	0=0+0+0	1
The University of Aberdeen (A20)	0/0	0/0	0/0	2	0=0+0+0	2
The University of Bath (B16)	0/13	8/13	11/65	32	6=5+0+1	148
The University of Birmingham (B32)	2/18	18/23	17/40	40	3=3+0+0	161
The University of Bristol (B78)	0/38	52/19	20/31	33	13=5+2+6	206
The University of Cambridge (C05)	39/0	1/0	63/3	1	156=64+16+76	263
The University of Central Lancashire (C30)	0/0	0/0	0/1	0	0=0+0+0	1
The University of Dundee (D65)	0/0	0/0	0/1	3	0=0+0+0	4
The University of East Anglia (E14)	0/0	0/0	0/1	0	0=0+0+0	1
The University of Edinburgh (E56)	1/14	15/11	8/22	36	11=5+0+6	118
The University of Exeter (E84)	0/21	16/7	3/26	32	4=2+1+1	109
The University of Glasgow (G28)	0/1	3/5	3/9	13	0=0+0+0	34
The University of Hull (H72)	0/2	0/0	0/0	0	0=0+0+0	2
The University of Kent (K24)	0/1	1/0	1/6	0	0=0+0+0	9
The University of Leeds (L23)	0/10	12/2	3/24	25	5=3+0+2	81
The University of Leicester (L34)	0/4	6/2	1/5	7	1=1+0+0	26
The University of Liverpool (L41)	0/6	6/3	0/4	7	0=0+0+0	26
The University of Manchester (M20)	11/4	7/15	31/48	51	10=5+1+4	177
The University of Nottingham (N84)	1/21	13/14	13/33	44	7=3+2+2	146
The University of Salford (S03)	0/0	0/0	0/0	1	0=0+0+0	1
The University of Sheffield (S18)	0/13	17/4	8/21	20	2=2+0+0	85
The University of Southampton (S27)	0/7	26/8	3/22	29	1=1+0+0	96
The University of St Andrews (S36)	2/19	18/13	18/30	40	25=13+1+11	165
The University of Strathclyde (S78)	0/0	0/0	0/0	1	0=0+0+0	1
The University of Sunderland (S84)	0/0	0/0	0/1	0	0=0+0+0	1
The University of Sussex (S90)	0/0	2/1	2/5	6	0=0+0+0	16
The University of Warwick (W20)	1/12	23/24	16/83	73	2=2+0+0	234
The University of York (Y50)	0/25	12/6	6/28	23	6=2+1+3	106
UCL (University College London) (U80)	0/8	33/7	11/5	20	10=7+1+2	94
University of Wales Institute Cardiff (C20)	0/3	2/1	2/3	7	2=1+0+1	20
Offer analysis	85/267	342/205	399/616	1074	634=291+47+296	3622
Institution X	(X F & D86 I) / (X I & D86 F)	(X I & D86 D) / (X D & D86 I)	(X F & D86 D) / (X D & D86 F)	(X D blank & D86 D)	(X blank & D/I/F offer)	Total

Notes:

Table A1.2 Differential recruitment statistics for UCAS applications 2015/16 cycle from female candidates

Institution X	(X F & D86 I) (X I & D86 F)	(X I & D86 D) (X D & D86 I)	(X F & D86 D) (X D & D86 F)	(X D & D86 D)	(X blank & D/I/F offer)	
Aberystwyth University (A40)	0/1	0/1	0/0	2	0=0+0+0	4
British School Osteopathy (B87)	0/0	0/0	0/0	0	1=1+0+0	1
Cardiff University (C15)	0/2	9/3	0/26	12	2=1+0+1	54
Durham University (D86)	2/5	3/3	11/2	1471	16=5+4+7	1513
Heriot-Watt University (H24)	0/0	0/0	0/2	3	0=0+0+0	5
Imperial College London (I50)	97/77	91/99	196/88	219	333=157+32+144	1130
Keele University (K12)	1/0	2/0	0/0	0	0=0+0+0	3
Kings College London (K60)	0/3	7/7	3/9	28	2=1+0+1	59
Lancaster University (L14)	4/50	37/46	19/106	84	19=11+4+4	365
London School of Economics and Political Science (L72)	0/0	0/0	0/0	0	2=2+0+0	2
Loughborough University (L79)	0/2	6/2	0/17	7	1=1+0+0	35
Newcastle University (N21)	1/5	5/2	3/8	12	2=1+0+1	38
Northumbria University (N77)	0/2	1/1	0/6	3	2=2+0+0	15
Nottingham Trent University (N91)	0/0	0/0	0/1	0	2=0+0+2	3
Oxford Brookes University (O66)	0/0	0/0	0/1	0	0=0+0+0	1
Oxford University (O33)	61/0	0/1	385/0	1	916=353+88+475	1364
Queen Mary University of London (Q50)	0/0	1/1	0/1	3	1=1+0+0	7
Royal Holloway and Bedford New College (R72)	0/1	5/1	2/7	7	2=2+0+0	25
Surrey University (S85)	0/8	19/4	2/26	20	3=2+0+1	82
Swansea University (S93)	0/2	2/0	0/5	3	0=0+0+0	12
Teesside University (T20)	0/0	0/0	0/0	0	1=0+0+1	1
The University of Aberdeen (A20)	0/0	0/0	0/1	3	0=0+0+0	4
The University of Bath (B16)	1/64	61/46	24/146	152	17=10+2+5	511
The University of Birmingham (B32)	3/73	76/78	50/130	156	5=4+1+0	571
The University of Bristol (B78)	4/122	128/67	49/119	132	101=52+18+31	722
The University of Cambridge (C05)	147/0	0/0	268/2	5	632=246+84+302	1054
The University of Dundee (D65)	0/0	1/0	1/2	1	0=0+0+0	5
The University of East Anglia (E14)	0/0	0/0	0/0	1	0=0+0+0	1
The University of Edinburgh (E56)	4/32	53/24	29/63	104	29=15+2+12	338
The University of Exeter (E84)	4/55	52/19	18/55	62	24=14+0+10	289
The University of Glasgow (G28)	1/8	9/4	9/19	35	1=0+0+1	86
The University of Huddersfield (H60)	0/0	0/0	0/0	1	0=0+0+0	1
The University of Hull (H72)	0/2	1/0	1/4	2	0=0+0+0	10
The University of Kent (K24)	0/1	2/0	0/4	3	0=0+0+0	10
The University of Leeds (L23)	1/37	46/22	16/67	64	12=4+1+7	265
The University of Leicester (L34)	0/14	11/4	1/28	16	0=0+0+0	74
The University of Liverpool (L41)	0/10	12/7	6/23	28	1=1+0+0	87
The University of Manchester (M20)	44/15	45/75	105/174	187	37=26+2+9	682
The University of Nottingham (N84)	3/58	59/47	32/125	108	13=10+1+2	445
The University of Portsmouth (P80)	0/0	0/0	0/1	1	0=0+0+0	2
The University of Salford (S03)	0/1	0/0	0/1	0	0=0+0+0	2
The University of Sheffield (S18)	1/43	55/20	9/54	59	11=7+0+4	252
The University of Southampton (S27)	0/40	38/31	11/58	69	1=0+1+0	248
The University of St Andrews (S36)	8/29	40/45	40/53	92	209=92+28+89	516
The University of Strathclyde (S78)	0/0	0/0	0/1	2	0=0+0+0	3
The University of Sussex (S90)	1/2	7/6	3/17	22	0=0+0+0	58
The University of Warwick (W20)	7/108	139/149	83/276	328	6=4+0+2	1096
The University of York (Y50)	0/49	33/28	9/76	74	21=8+5+8	290
UCL (University College London) (U80)	2/26	86/36	31/31	95	35=20+4+11	342
University of Cumbria (C99)	0/0	0/0	0/0	0	1=0+0+1	1
University of Hertfordshire (H36)	0/0	0/0	0/0	0	1=0+0+1	1
University of Wales Institute Cardiff (C20)	0/2	9/3	0/26	12	2=1+0+1	54
Offer analysis	397/879	1151/882	1416/1861	3689	2464=1054+277+1133	12739
Institution X	(X F & D86 I) (X I & D86 F)	(X I & D86 D) (X D & D86 I)	(X F & D86 D) (X D & D86 F)	(X D blank & D86 D)	(X blank & D/I/F offer)	Total

Table A1.3 Differential recruitment statistics for UCAS applications 2015/16 cycle from male candidates

A.1.4. A-level Grade data

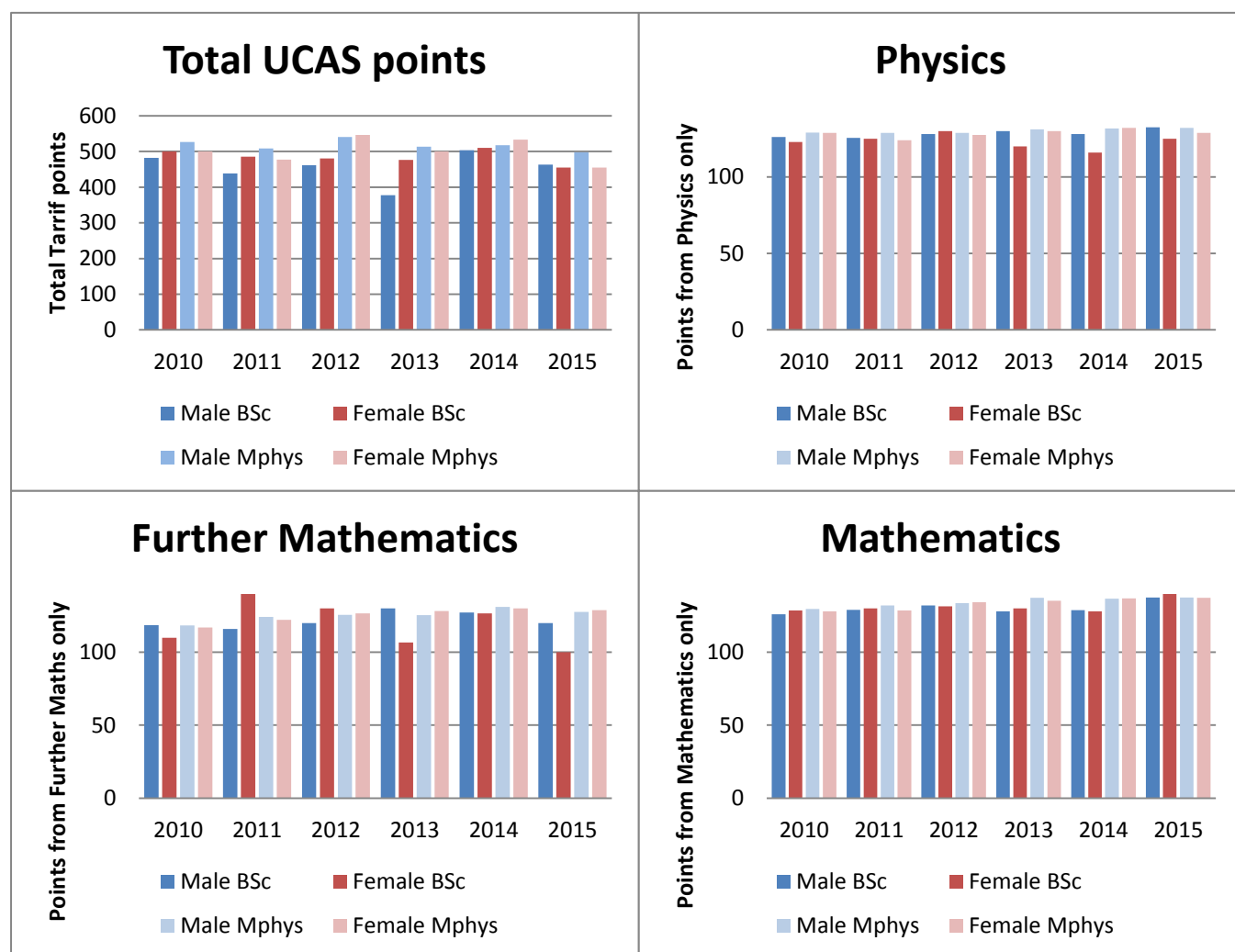


Figure A1.6: Comparison of UCAS points across different A-levels, subdivided by gender and programme.

A.1.5. Postgraduate recruitment data

	2016		2015		2014		3 year total		
	F	M	F	M	F	M	F	M	%
Applicants	14	45	15	49	7	38	36	132	21
Non-withdrawn	9	25	10	34	5	20	24	79	23
Offer	5	10	1	15	3	12	9	37	20
Accepted	3	6	0	12	1	6	4	24	14
Self-fund ratio	67	33	0	25	0	20	67	26	

Table A1.4 Astronomy Section postgraduate recruitment data

	2016		2015		2014		3 year total		
	F	M	F	M	F	M	F	M	%
Applicants	14	118	6	135	17	123	37	376	9
Non-withdrawn	14	118	6	135	17	123	37	376	9
Offer	3	9	1	14	2	5	6	28	18
Accepted	3	8	0	8	2	4	5	20	20
Self-fund percentage	33	13	0	0	0	0	20	5	

Table A1.5 IPPP Section postgraduate recruitment data

	2016		2015		2014		3 year total		
	F	M	F	M	F	M	F	M	%
Applicants	9	35	10	49	10	31	29	115	20
Non-withdrawn	8	35	9	48	8	24	25	107	19
Offer	4	19	3	9	6	9	13	37	26
Accepted	2	15	2	5	3	5	7	25	22
Self-fund percentage	100	20	50	0	100	20	86	16	

Table A1.6 CMP Section postgraduate recruitment data

	2016		2015		2014		3 year total		
	F	M	F	M	F	M	F	M	%
Applicants	5	13	3	22	5	10	13	45	22
Non-withdrawn	5	12	2	13	5	10	12	35	26
Offer	1	6	2	6	1	4	4	16	20
Accepted	1	5	2	5	0	2	3	12	20
Self-fund percentage	0	17	0	17	0	0	0	14	

Table A1.7 CFAI Section postgraduate recruitment data

	2016		2015		2014		3 year total		
	F	M	F	M	F	M	F	M	%
Applicants	5	13	7	18	9	15	21	46	31
Non-withdrawn	3	9	6	15	7	9	16	33	32
Offer	2	7	4	9	5	4	11	20	35
Accepted	2	5	2	6	3	2	7	13	35
Self-fund percentage	50	40	100	17	33	0	57	23	

Table A1.8 AtMol Section postgraduate recruitment data

	2016		2015		2014		3 year total		
	F	M	F	M	F	M	F	M	%
Applicants	47	224	41	273	48	217	136	714	16
Non-withdrawn	39	199	33	245	42	186	114	630	15
Offer	15	51	11	53	17	34	43	138	24
Accepted	11	39	6	36	9	19	26	94	22
Self-fund ratio	0.55	0.23	0.5	0.14	0.44	0.11	0.5	0.17	

Table A1.9 Department wide postgraduate recruitment data

A.1.6. Staff survey data

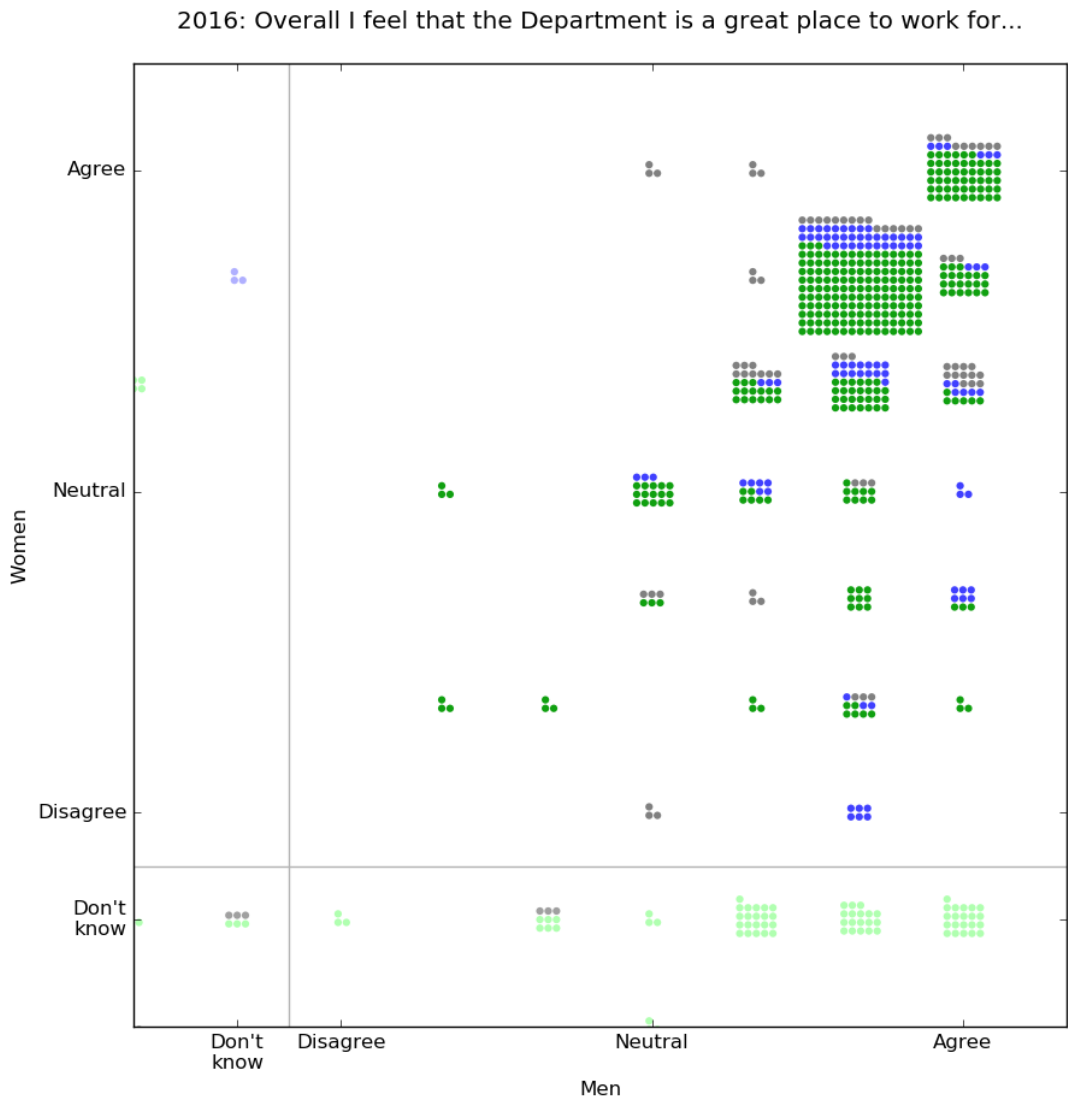
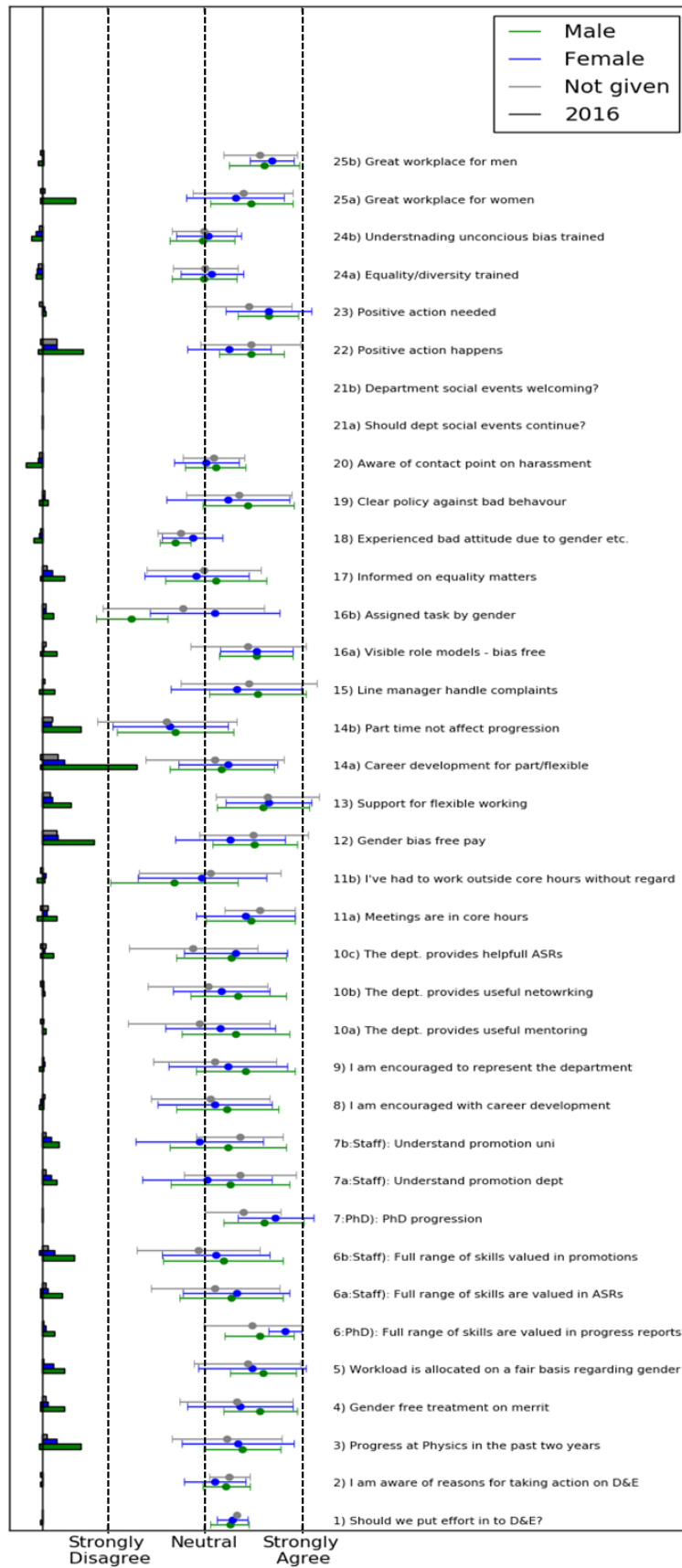


Figure A1.7: Answer to survey question on whether the department is a good place to work for men and women. Blue = female, green = male and grey =undeclared.

Disaggregation of 2016 data by gender, grade and section: Fig A1.8, A1.9 and A1.10



A.1.7. Case studies

Case Study 1: A female member of academic staff commenting on their experiences with the old and new promotions systems, in which we gave applicants more control over the people seeing their application data and being asked to provide comment and feedback. Previously, everyone in the grade the applicant was applying to and above was asked to read and comment on cases. This could be over 50 people on occasion. In the new scheme a group of 4 people reviewed the cases, requesting supporting information from specific others in the department if specialist knowledge was required. Heads of Section can still be consulted on cases, but applicants have the option of nominating an alternative if they feel they will be able to give a more informed or balanced view. This is particularly important in large sections with a high diversity in research topics.

“The change to the promotion process introduced a much fairer way to be promoted. Prior to the change, the decision to put a promotion case forward lay in the hands of the head of section/institute. Staff members who were being discriminated upon had no chance to be promoted as they simply did not have the possibility to apply. Since the change, one can submit an application without prior approval from the head of the section, which gives the chance to any staff member to be at least considered for promotion and be judged on academics achievements only (rather than on potentially subjective criteria).

Furthermore, the fact that the assessment is performed by the HoD who has a much broader view of the staff's evolution in the department is also reassuring for people who suffer from the "imposter syndrome". I strongly support the change.”

Case Study 2: A female undergraduate commenting on their experience of the revised system of workshops and formative homeworks. In the previous scheme, homeworks were summatively assessed and workshops were held at a rate of either once per two weeks or once per three weeks depending on the module. In the new scheme, homeworks are self/peer marked and workshops are held once per week per module.

“Regular workshops enable an unthreatening environment where students can ask questions regarding the relevant course. I have found that having the lecturer aided by several PhD students is beneficial because if required you can approach more than one person to explain a concept to you. This may mean that the problem is explained to you in more than one way, meaning that you are more likely to understand the problem.

Not having the pressure of summative homework every week means that throughout the term you can focus on understanding the lectures and approach the formative homework in your own time. In addition to this there are often on-going lab reports and programming which are summative that students want to be able to prioritise over formative homework in weeks with deadlines. It also means that if for one week, for example if you have an interview for an internship to prepare for, you don't have the pressure of handing in a piece of work that you were not able to give all your attention to. Instead, in your own time you can make your own model solutions and compare to the lecturers online solutions without feeling too under pressure.

I have found that the formative midterm tests are a useful way to gauge how much I have learnt throughout the course. This enables me to identify key areas for improvement. The system in place

for third year physicists this year, taking the test in the last week of term with a reduced number of contact hours, worked well because it meant that we had time to prepare, hence the tests actually gave us meaningful scores as to how much we conceptually understood.”

Case Study 3: A female member of staff commenting on their experience with the new mentoring scheme. The new scheme enables staff to choose mentors on the basis compatibility and the type of support they are seeking.

“I have found it very difficult to engage with the mentoring on offer in the department, due to issues of self-confidence. The new scheme enabled me to be paired with someone I felt I could be open with rather than assigning me someone. This made a great deal of difference and enabled me to be honest about my career progress and my strengths and weaknesses. I had the chance to explicitly request support on preparing for promotion, a process which I was extremely fearful of engaging with. Without the support of my mentor I would not have been able to complete the application process. The application was ultimately successful, however it would have an extremely beneficial process even had it not been.

I had found myself in a very negative frame of mind regarding my achievements and was struggling to find any positives in my performance. Through discussion with my mentor I have been able to draw a line under bad past experiences and start to view my current achievements in a more balanced light as a result.

I have also found the flexibility of the scheme very useful in that having completed my primary objective I can now set new targets and continue to build my professional development.

I have also engaged with the programme as a mentor and appreciated the training I received to do that. Mentoring others has also provided me with much needed perspective on my own career as well as helping me to feel I can contribute something from my own experience to others.”

Case Study 4: A male member of staff commenting on their experience of negotiating part-time working.

“An academic career offers many opportunities both within the University and outside. I have been fortunate in that Durham University has been fully supportive over many years to my involvement in extra mural activities. In all cases, things I have undertaken outside have ended up being of benefit to the University and my own academic career. Sometimes these outside activities have been undertaken whilst I have held a full-time position at Durham and there have been opportunities for personal publications and for bringing in company support to University teaching and research.

In recent years however, I have taken on the technical leadership of an exciting range of projects for an Equestrian Sports company I founded and there has been, once again, publication and funding opportunities for myself and for the University. However, these activities have become more time-consuming and I have been able to step down my university role to a fraction of full-time. This has all been with the full support of the University and my department and it is greatly appreciated that what is a natural change in career path has been so easy to follow because of this. Whether it is the time to fully step outside of academia is for me to decide but for the time being there are huge benefits to both sides by having a foot in both camps and I am fortunate that this is seen as a positive move.”