Athena SWAN Bronze department award application

Name of university: The Open University

Department: Department of Physical Sciences

Date of application: November 2013

Date of university Bronze and/or Silver SWAN award: April 2013

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Departmental website address: http://www.open.ac.uk/science/physical-science/

Athena SWAN Bronze Department awards recognise that in addition to university-wide policies the department is working to promote gender equality and to address challenges particular to the discipline.

Not all institutions use the term ‘department’ and there are many equivalent academic groupings with different names, sizes and compositions. The definition of a ‘department’ for SWAN purposes can be found on the Athena SWAN website. If in doubt, contact the Athena SWAN Officer well in advance to check eligibility.

It is essential that the contact person for the application is based in the department.

Sections to be included

At the end of each section state the number of words used. Click here for additional guidance on completing the template.
1. Letter of endorsement from the head of department: maximum 500 words

Please see attached letter from Professor Monica Grady, DPS Head of Department.

2. The self-assessment process: maximum 1000 words

a) The self-assessment team

Members of the Department of Physical Sciences (DPS) Self-assessment Team (SAT) are drawn from across all categories of staff, including research students and all three disciplines (Physics, Astronomy and Planetary and Space Sciences (PSS)) to provide a balance of work and life experiences, career types and genders.

Ms Liz Whitelegg (Senior Lecturer, Physics) – SAT co-chair - is an expert on gender and science, and has led initiatives since the 1980s to increase female participation in science. She is the former chair of IOP’s Diversity and Inclusion Committee, Associate Editor for the International Journal of Gender, Science and Technology and a member of the university’s Athena SWAN SAT. She has one son and has always combined full-time working with childcare (using the university’s crèche) without a career break.

Dr Vic Pearson (Lecturer, PSS & Deputy Associate Dean, Equal Opportunities) - SAT co-chair - joined the university in 1999 as a research student. She is part of a dual career couple, both working within higher education. She is also a member of the university’s Athena SWAN SAT.

Dr Stephen Lewis (Senior Lecturer, PSS) joined the university in 2005 as an RCUK Fellow. He recognizes the value of working in a diverse team and has benefitted from the flexibility offered by the university for those with caring responsibilities. He shares family responsibilities, including three children and previously had primary responsibility for an aging parent.

Miss Elena Nickson (Research Student, Astronomy and President of the Postgraduate Student Society) is a member of the STFC ‘Women in SET’ focus group and has produced a video for the EC Science: It’s a girl thing competition.

Dr Matt Balme (Senior Research Fellow, PSS) joined the university in 2005 as a PDRA in joint part-time positions at OU and in the USA. As a career-young academic with a young family, he values the working flexibility that the university offers, for childcare support and career progression.

Dr Carole Haswell (Senior Lecturer, Astronomy) joined the university in 1999 after a research career in the USA. She has served extensively on the PPARC/STFC ‘Women in SET’ focus group. As the mother of a primary school child, she appreciates the formal support for flexible working and provision for sick and contingency leave.

Dr Louisa Preston (PDRA, PSS) joined the university in 2011 from a Postdoctoral Fellowship in Canada. She lives in London where her husband works, and divides her working week between London and Milton Keynes. She is a strong advocate for promoting and keeping women in science, and encouraging and motivating the next generation of female scientists.
Professor Ian Wright (Head of PSS) has been at the university for nearly 30 years. His wife formerly had a job in London (requiring a daily commute) and he took charge of all the relevant childcare arrangements for his son from his early years onwards.

Dr Samuel Eden (Research Fellow, Physics). The flexible working pattern possible for university academics is important for him and his partner to pursue their careers. His partner’s NHS position involves early shifts and weekend work and he is able to arrange his schedule to complement hers.

Dr Silvia Bergamini (Lecturer, Physics) joined the university in 2006 after a PDRA in Paris. Originally from Italy, and with a researcher partner based abroad, she spent her 6 month’s maternity leave with her partner and baby outside the UK. She returned to her post, managing sole care of her son, but with frequent trips abroad to be with her partner. This complex family life was made possible with the flexible working conditions offered by the OU.

The work of the team was supported by two administrative staff: Ms Louise Hobbs (Department Administrator) and Mrs Tracey Moore (SAT Secretary).

b) The self-assessment process

The SAT was formally constituted (with Terms of Reference) in February 2013 and monthly meetings were held from March to November to prepare the submission action plan. SAT meetings are formally minuted and actions recorded.

A parallel submission has been prepared for Project JUNO Practitioner, to replace the Practitioner award held by the former Physics & Astronomy department. Submission to Athena SWAN is a commitment of the university’s Athena SWAN Action Plan and the university’s Equality Action plan (2012-13).

Membership of the SAT team carries a formal workload time allocation. Secretarial and administrative support has also been allocated from both DPS and faculty. The appointment of temporary assistance (a Nuffield student) to support the presentation of data in our JAS submissions, and a proof reader (a PDRA) was strongly supported by the HoD, Prof Monica Grady who champions good practice for women in science. Other women in science activities, (i.e., editorship of the International Journal of Gender, Science and Technology, membership/chairing of external IOP, RAS and STFC Diversity and Women in STEM committees) is allowed for in individuals’ workload plans.

The SAT co-chairs are also members of the university Athena SWAN SAT, and have also met regularly with members of other STEM departments to co-ordinate Athena SWAN activities. There has been regular consultation with the HoD, who is a member of the university Athena SWAN SAT, with the three discipline heads (one of whom is on the DPS SAT) and the Faculty Senior Management Team (including the Dean).

Athena SWAN activity has been discussed at every departmental meeting and reported in monthly departmental newsletters since April 2013.
External advice on the Athena SWAN process was sought from Prof Averil MacDonald in her role as SEPnet Diversity Lead.

**c) The future of the self-assessment team**

Monthly SAT meetings will continue and AS activity will continue to be a standing item on every departmental meeting and reported in the departmental newsletter.

**ACTION POINT 1:**

1.1 Review the Terms of Reference of the SAT.

1.2 Review the membership of the SAT to be inclusive to all staff categories, including non-academic/research.

*(Word count for Section 2 = 980 words)*
3. **A picture of the department: maximum 2000 words plus 1000 word extra**

**a) Department of Physical Sciences (DPS)**

DPS employs 47 women out of a total of cohort of 146 (Figure 1). DPS has grown from a merger in 2011 of the Department of Physics and Astronomy, the Planetary and Space Sciences Research Institute and the Planetary Surfaces Group (from the Earth and Environmental Sciences Department).

![Distribution of staff roles across DPS (Data as of April 2013)](image)

DPS comprises three disciplines: Physics, Astronomy and Planetary and Space Sciences (PSS), led by discipline heads (HoDis). HoDis (3 men) manage day-to-day staff activity and sit on the Department Management Team (DMT) along with the HoD (female) and the Associate Programme Director (APD, male).

**DPS teaching** focuses on the Physical Science curriculum, but staff also contribute to other science curricula. Academic staff are divided into two categories, central and regional, with different contracts, offering different amounts of time for research and different promotion criteria. Central academic staff are based at the campus in Milton Keynes and regional staff, known as Staff Tutors, are based in 13 centres throughout the UK. Teaching is overseen by the faculty-level Science Programme Committee. Staff tutors also contribute to teaching and some do research.

All academic staff are involved in the production of teaching materials delivered online, via print and other media. DPS Staff Tutors (STs, n=6, 5 women) are appointed at faculty level and manage 130 regional, part-time Associate Lecturers (ALs) who support students on a local basis. Of these ALs, 46 are employed to support students on physics-related modules, and 12 (26%) are women. Since many ALs also have substantive roles within other organisations, the issues relating to their career progression are complex and beyond the scope of what is possible here. However, in 2005 the [Athena Project](#) funded the study of the careers of female ALs in the then OU Science and
Technology Faculties\textsuperscript{1}. The research found that due to its flexible employment patterns and professional development opportunities (that ALs are paid to attend), the university offered unparalleled employment opportunities for female STEM professionals that restored women's confidence in their abilities and actively developed their careers in HE to enable them to progress to other posts within the university and elsewhere\textsuperscript{2}.

**DPS research** is co-ordinated through the cross-disciplinary Centre for Earth, Planetary, Space and Astronomical Research (CEPSAR), whose members come from within and beyond DPS. Three of five DPS research groups\textsuperscript{3} are led by female staff, although this leadership is not formally recognised. This is of concern because of the career development opportunities these positions offer.

**ACTION POINT 2:**
Investigate why research group leadership positions are not recognised formally.

DPS is located in two adjacent buildings. Staff tutors also have office areas allocated within DPS for use when they come to the campus. DPS office areas are open plan, which aims to encourage communication between staff. Both DPS buildings have dedicated social spaces.

**(b) DPS data**

**Student data**

All OU degrees are undergoing a transition from module-based to a degree-based structure. Until October 2012, the majority of students registered on modules, constructing their degrees from 360 points at undergraduate level. Students did not need to decide which degree they would claim until they had completed 360 points. Thus it was not possible to track students on subject pathways through their degrees until they had completed all their modules.

Degree level data presented here is for the **minority** of students who formally signalled their intention to study for the Physical Science BSc or Natural Sciences BSc (Physical science pathway) at the beginning of their study.

From October 2012, undergraduate students have been required to register for specific qualifications and, where available, subject-based pathways when they join the OU so it should be possible to track populations of students according to degree subject choices in the future.

\textsuperscript{1} Associate Lecturers in Science (ALiS) project. Available at http://www.athenaforum.org.uk/reports/Report05.PDF


\textsuperscript{3} Cold Atoms Group (CAG), Cosmochemistry Research Group (CRG), and the Exoplanets Group are all headed by DPS women.
(i) Numbers of males and females on access or foundation courses

Access and introductory level 1 modules are not discipline-based, but cover generic skills for OU study in science (S154: *Science starts here* – access module) and cross-disciplinary study in all the sciences (S104: *Discovering science* – level 1 module). Nevertheless, because these are gateway modules, we have examined the data for these interdisciplinary courses (Table 1). This data reveals that the October start for the level 1 module is more popular with women than the February start, possibly because they prefer to avoid studying over the summer.

<table>
<thead>
<tr>
<th>Module</th>
<th>% (no.) of women registering</th>
<th>% (no.) of men registering</th>
<th>% (no.) of women passing</th>
<th>% (no.) of men passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>S154 (access module)</td>
<td>53%</td>
<td>47%</td>
<td>56%</td>
<td>44%</td>
</tr>
<tr>
<td>S104 (level 1 module)</td>
<td>47%</td>
<td>53%</td>
<td>48%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Table 1. Access and introductory level 1 module registration and achievement data by gender for 2010-2012.

ACTION POINT 3:

Carry out further investigation into differential registration patterns by gender.

(ii) Undergraduate male and female numbers, achievement and degree classification by gender

The BSc in Physical Sciences (B27) was offered from 2003 and, although no longer open for new registrations, existing students are still studying towards this.

<table>
<thead>
<tr>
<th>Year</th>
<th>Women as % of total registered</th>
<th>Women as % of total awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>22%</td>
<td>26%</td>
</tr>
<tr>
<td>2011</td>
<td>24%</td>
<td>20%</td>
</tr>
<tr>
<td>2012</td>
<td>28%</td>
<td>24%</td>
</tr>
<tr>
<td>Average % over 3 years</td>
<td>24%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Table 2. Registration and award data for the B27 Physical Sciences degree 2010-2012 by gender.

Registration data (Table 2) is higher than the benchmarking data for acceptances on physics degrees (18.6%). Award data is equivalent to benchmarking data (23%)\(^5\). Figure 2 and Table 3 show classification data for this degree compared to national benchmarking data\(^6\). Degree

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\(^4\) The OU has an open entry policy so students do not require previous qualifications to gain a place on our degrees, hence there is no data on acceptance.


\(^6\) Benchmarking data is only available for 2004/05 to 2009/10 so comparisons have been made between the overall figure for these years and the latest OU data.
classification shows a similar pattern to the benchmarking data with a higher percentage of women than men being awarded 1st and 2.1s and a lower percentage of women being awarded 2.2 and 3rds. There are no unclassified awards for this degree.

![Figure 2. Classification of B27: Physical Sciences degree by gender and academic year.](image)

<table>
<thead>
<tr>
<th>Bachelor’s degree class (B27)</th>
<th>Benchmark male % 2004/05 to 2009/10</th>
<th>OU male % 2012/13</th>
<th>Benchmark female % 2004/05 to 2009/10</th>
<th>OU female % 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18.6</td>
<td>37.2</td>
<td>23.9</td>
<td>46.2</td>
</tr>
<tr>
<td>2.1</td>
<td>29.0</td>
<td>34.9</td>
<td>35.3</td>
<td>38.5</td>
</tr>
<tr>
<td>2.2</td>
<td>32.6</td>
<td>20.9</td>
<td>27.8</td>
<td>15.4</td>
</tr>
<tr>
<td>3</td>
<td>16.7</td>
<td>7.0</td>
<td>10.3</td>
<td>0</td>
</tr>
<tr>
<td>Unclassified</td>
<td>3.1</td>
<td>0</td>
<td>2.7</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3. Comparison of classification of B27: Physical Sciences degree with national benchmarking data by gender

Between 2010 and 2011, physics and astronomy modules could also be counted towards our interdisciplinary Natural Sciences degree (physical science pathway) (B64) (Table 4).

<table>
<thead>
<tr>
<th>B64: Natural Sciences (Physics pathway)</th>
<th>Female % registered</th>
<th>Female % awarded⁷</th>
<th>Male (%) awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>21%</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>2011</td>
<td>27%</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>2012</td>
<td>24%</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>Average % over 3 yrs.</td>
<td>24%</td>
<td>59%</td>
<td>41%</td>
</tr>
</tbody>
</table>

⁷ Rounding errors sometimes result in totals exceeding 100%.
Table 4. Registration and award data for the physical sciences pathway on the B64 Natural Sciences degree 2010-2012 by gender. Averaged over 3 years, of those awarded the degree 59% were women and 41% of were men. This is higher than benchmarking data.

This Natural Sciences degree started in 2010 so the award data in Table 4 is based on very small numbers. In its first year a very few students could claim it straightaway by retrofitting their modules to its specification. The small numbers do not enable classification data to be analysed sensibly. (This degree has now been replaced by a new qualification. It is too soon for any students to have graduated from this.)

ACTION POINT 4:

Ensure registration and award data for the physics and astronomy pathway of the new qualification is produced, by gender, for monitoring by the SAT, the Qualification Pathway team and Science Programme Committee and compare with historic data.

Many mature OU students withdraw from study before completing their module. The 2011/12 withdrawal survey of (n=1250 male, 2430 female) students found the most influential reasons for withdrawal were pressure from family life and events, and unexpected illness. Men also cited employment issues. These reasons for withdrawal far outweigh other factors related to their study.

The withdrawal survey also showed that women who withdrew were more satisfied with their teaching materials than men (82% satisfaction cf. 79%), but were slightly less satisfied by their AL support (73% satisfaction cf. 78%). Research at school level has found that supportive teacher-student relationships are more important for female than for male students, particularly in science. This suggests that analysis of withdrawal data for physics-related modules may be revealing. Levels of satisfaction with the OU study experience are very high (92% in a 2013 survey), even amongst those who withdraw. The OU has been in the top five UK universities in the National Student Satisfaction Survey since first inclusion in 2005. There were no differences in satisfaction ratings between male and female respondents.

A new study support system (Student Support Teams) is being rolled out, which will provide greater opportunities to support students differentially, taking any gender differences revealed by engagement in the Athena SWAN process into account.

ACTION POINT 5:

5.1 Obtain and analyse withdrawal data for physics-related modules by gender.

5.2 Discuss good practice in supporting female physics students with the new Student Support Teams.

Because the degree-level data is based on small numbers, additional data at the module level has been examined (Table 5).

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<table>
<thead>
<tr>
<th>Module code</th>
<th>Module title</th>
<th>% of women registering</th>
<th>% of women completing &amp; passing (^9)</th>
<th>% of men completing &amp; passing (^10)</th>
<th>% of women passing as a % of total passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>S207(^11)</td>
<td>The physical world</td>
<td>29%</td>
<td>46%</td>
<td>57%</td>
<td>26%</td>
</tr>
<tr>
<td>S282</td>
<td>Astronomy</td>
<td>26%</td>
<td>46%</td>
<td>48%</td>
<td>26%</td>
</tr>
<tr>
<td>S283</td>
<td>Planetary Science and the search for life</td>
<td>36%</td>
<td>61%</td>
<td>66%</td>
<td>34%</td>
</tr>
<tr>
<td>SXP288(^12)</td>
<td>Practical Science: Physics and astronomy</td>
<td>23%</td>
<td>71%</td>
<td>70%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>All physics-related level 2 modules combined &amp; averaged over 3 years</strong></td>
<td><strong>30%</strong></td>
<td><strong>52%</strong></td>
<td><strong>56%</strong></td>
<td><strong>28%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Percentage (numbers) of students registering and passing each of the four level 2 physics-related modules averaged over 3 years (2009-2012). 30% of registered students are female and 52% of these female students complete and pass compared to 56% of men.

Table 5 shows for all four level 2 modules over three years, 28% of those who complete and pass the modules are female, higher than the benchmarking data for physics degrees, suggesting no evidence of bias in the teaching, learning and assessment process.

The gender differences for S207 and S283 are larger than for the other two modules, but the percentages of women completing and passing both these modules have increased annually and the gap has narrowed over the three year period. We recognise the importance of investigating the gender gap further, particularly for S207 since it is a ‘gateway’ module for physics study. This module is currently being re-written so attention can be paid to ensuring the module material is gender inclusive.

**ACTION POINT 6:**

6.1 Ask the S207 and S283 module teams to identify strategies to narrow the gender differences in the completion and passing data.

6.2 Compare with data for other level 2 science ‘gateway’ modules.

6.3 Work with the Student Support Teams to raise awareness of good practice in supporting female students.

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\(^9\) percentages of female (and male) students passing as a percentage of female (and male) students starting the module

\(^10\) percentages of female (or male) students passing as a percentage of the total passing

\(^11\) S207 starts in October each year, unlike the other modules which start in February. 2012 data was not available at time of data request so data here is for 2009-2011.

\(^12\) SXP288 is a new module so only one years’ worth of data is available.
The registration data for the level 3 modules is higher than the benchmarking data (18.6%), but the award data is slightly lower than the 23% benchmark figure. Nevertheless, Table 6 shows that a higher percentage of women complete and pass each level 3 module compared to men. Women’s success at level 3 will be communicated to female students, tutors and student support teams in order to motivate female students.

<table>
<thead>
<tr>
<th>Module code</th>
<th>Module title</th>
<th>% of females registering</th>
<th>% of females completing &amp; passing</th>
<th>% of males completing &amp; passing</th>
<th>% of females completing &amp; passing as a % of total passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>S382</td>
<td>Astrophysics</td>
<td>19%</td>
<td>65%</td>
<td>58%</td>
<td>21%</td>
</tr>
<tr>
<td>S383</td>
<td>The relativistic universe</td>
<td>17%</td>
<td>60%</td>
<td>52%</td>
<td>19%</td>
</tr>
<tr>
<td>SM358</td>
<td>The quantum world</td>
<td>20%</td>
<td>60%</td>
<td>61%</td>
<td>20%</td>
</tr>
<tr>
<td>SMT359</td>
<td>Electromagnetism</td>
<td>20%</td>
<td>55%</td>
<td>49%</td>
<td>21%</td>
</tr>
<tr>
<td>SXP390</td>
<td>Science project course: radiation and matter</td>
<td>23%</td>
<td>71%</td>
<td>70%</td>
<td>31%</td>
</tr>
</tbody>
</table>

**Table 6. Percentage of female students registering and passing all level 3 physics-related modules over 3 years (2010-2012). 61% of women who start the modules complete and pass compared to 56% of men.**

### ACTION POINT 7:

7.1 Investigate women’s greater success at level 3 to reveal any good practice that can be implemented throughout the physics curriculum.

7.2 Communicate women’s achievement to module teams, pathway tutors and students in order to build women’s confidence.

(iii) Postgraduate male and female numbers completing taught courses

There is only one physics-based taught MSc, *Medical physics*. The university no longer accepts new students onto this qualification, and continuing students have until 2015 to complete it.

<table>
<thead>
<tr>
<th>F50: MSc in Medical physics</th>
<th>% of women registering</th>
<th>% of women awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>32%</td>
<td>31%</td>
</tr>
<tr>
<td>2011</td>
<td>37%</td>
<td>47%</td>
</tr>
<tr>
<td>2012</td>
<td>36%</td>
<td>47%</td>
</tr>
<tr>
<td>Average (%)</td>
<td>35%</td>
<td>42%</td>
</tr>
</tbody>
</table>

**Table 7. Percentage of female students registered for and awarded Medical physics MSc degree 2010-2012.**
Unlike the Natural Sciences degree, women are proportionally not achieving as many distinctions as men, but taking the merit and distinction classifications together, they achieve better than men. Classification data is based on the achievement in three modules. We will continue to analyse data from these modules to see whether differing assessment styles or other factors affects achievement differentially. For comparison, we are also investigating classification data for the general MSc in science.

**ACTION POINT 8:**

Further analyse MSc data to identify module specific patterns of achievement by gender.

The data suggest that these taught masters degrees are popular with women and they complete and pass these degrees at a higher or similar rate to men.

**(v) Ratio of course applications to offers and acceptances by gender for undergraduate, postgraduate taught and postgraduate research degrees.**

The OU is unusual at undergraduate level in operating an open access policy. Although students are advised on level of study, anyone applying will be accepted. For the Science MSc degrees, students are only required to have a previous science degree, although equivalent qualifications and experience may be accepted. There is no data on applications because the university does not record this.

**ACTION POINT 9:**

Request data is recorded on applications to taught masters degrees in science in order to monitor acceptance/rejections by gender.

**(iv) Postgraduate male and female numbers on research degrees**
In March 2013 there were 56 PhD students registered in DPS (18 women). The number of PhD registrations is dependent on funding, and annual intake numbers since 2011 have remained relatively static (Table 8). Two postgraduate tutors oversee the recruitment process but it is often directly handled by individual academics. Hence, there is a variable approach to record keeping for recruitment, which is addressed in our Action Plan.

<table>
<thead>
<tr>
<th>Department/discipline</th>
<th>% of women FT PhD registrations</th>
<th>Benchmarking data 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPS</td>
<td>27%</td>
<td>36%</td>
</tr>
<tr>
<td>Physics</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>Astronomy</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Planetary and Space Science</td>
<td>27%</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Table 8 Percentage of female full-time PhDs registered in DPS, and split by discipline for Physics and Astronomy only, averaged over 2011-13. Benchmarking data for DPS are for all Physical Sciences. Benchmarking data for disciplines are for those subject areas.

Table 8 shows that the percentages of women appointed are below benchmarking data, apart from in Astronomy. The numbers of students are too small for any trends to be statistically significant, however this data will be distributed to the new postgraduate tutors for consideration in the 2014 recruitment period.

The October 2013 FT intake includes only two women (14% of intake), but this is consistent with the 2011 intake. In 2012 the intake included six women (50% of intake); the reasons for an increase in 2012 are not clear, but will be investigated further to identify any good practice that can be built on. Owing to this, as yet unexplained anomaly, data for the 2011-13 period is discussed as an average.

There are currently three part-time (PT) PhD students (two male, one female), which is lower than the UK benchmarking data for PT study in physical sciences (33% cf. 47% for UK average 14). However, numbers are too low for comparison to be useful. There are also three students (two men, one woman) who are part-time as a result of change of registration status beyond their four year FT studentship period. Again, numbers are too low to determine if there is any gender bias relating to completion within four years, but completion data will be sought for Action Point 10.5.

Initial expressions of interest from potential candidates can be ad hoc. Thus, ‘applications’ (Table 9) are those that were considered serious (not mailshots) and considered for interview; this distinction is still subjective.

Table 9 shows that applications to FT study in DPS from both men and women have risen since 2011, and applications from women are in line with benchmarking data for physics and

\[13\] 2011/12 HESA Student record: Postgraduate research students in SET subjects by mode of study, SET subject and gender.

\[14\] 2011/12 HESA Student record: Postgraduate research students in SET subjects by mode of study, SET subject and gender.
astronomy. Applications to PSS from women are much higher, yet this does not translate into higher percentages of women appointed.

<table>
<thead>
<tr>
<th>Department/discipline</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Average % 2011-13</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>DPS</td>
<td>7</td>
<td>35</td>
<td>12</td>
<td>39</td>
</tr>
<tr>
<td>Physics</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Astronomy</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Planetary and space science</td>
<td>4</td>
<td>22</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td>Total applications to DPS</td>
<td>42</td>
<td>51</td>
<td>74</td>
<td></td>
</tr>
</tbody>
</table>

Table 9 Number of applications to full time PhDs in DPS by discipline and average % over three years

To investigate this further, Table 10 shows the numbers of interviewees. The numbers of both male and female interviewees have increased since 2011. The percentage of women interviewed is greater than the percentage of women applicants. This same trend is seen in the Physics and Astronomy disciplines, but not in PSS. Therefore, it is possible that there is some attrition of women relating to the interview process (either selection, or in acceptance of interviews) for PSS candidates.

<table>
<thead>
<tr>
<th>Department/discipline</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Average % 2011-13</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Total DPS</td>
<td>7</td>
<td>29</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Physics</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Astronomy</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Planetary and space science</td>
<td>4</td>
<td>18</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Total interviews in DPS</td>
<td>36</td>
<td>37</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Table 10 Number of interviews for full time PhDs in DPS split by discipline

DPS acknowledge a need for a more robust recruitment process and a better system of monitoring of applications through to registration. Our action plan highlights the interview process as a first step towards improving the numbers of women PhD students registered, but also intends to collect data on offers declined to investigate that as a source of attrition.

**ACTION POINT 10:**

10.1 Initiate annual gender monitoring of PhD applications by discipline through application to registration stage, including supervisory teams and interview panels.
10.2 Ensure a robust and consistent interview process e.g. consistent structure and generic questions.

10.3 Ensure interviewers undertake Effective Recruitment training

10.4 Collect data, by gender, on offers declined to establish whether female applicants are being offered positions but are rejecting them.

10.5 Obtain data, by gender, for the completion of PhDs within and outside 4 years.

Staff data

(i) Gender ratio of academic staff and research staff

Data is presented for the period following the creation of DPS in August 2011 (Table 11). While this is compared with UK benchmarking data for physics departments, this may be inappropriate in light of the diversity of the disciplines in DPS, but is the best match available. 32% of academic/research staff in DPS in 2013 are women, which is above the UK benchmarking data (17.5%) for physics departments.

<table>
<thead>
<tr>
<th></th>
<th>Mar 2012</th>
<th>Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total number of staff</td>
<td>Number of women</td>
</tr>
<tr>
<td>Professor</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>SL (central)</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>SL (ST)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Reader</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>L (central)</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>L (ST)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Researcher</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>19</td>
</tr>
</tbody>
</table>

Table 11. DPS staff data by gender and job role since restructuring. SL is Senior Lecturer, ST is Staff Tutor and L is lecturer. (N.B. HR data reporting point is March so this does not include 2013 promotions.)

More senior academic job roles are filled by men (only one in nine professorial staff is female) but this is above the UK benchmarking data (7%), albeit based on low numbers. However, 39% of central academic SLs are female, consistent with the rest of the faculty and well above the UK picture (13%), so this is not an area of concern. To address disparity at professorial level, several initiatives are being developed to improve promotion rates of women as part of the University’s Equality Action Plan and University-level Athena SWAN action plan.

Two in three SL STs are female, also above the UK picture for those on teaching-only contracts (29%), the best comparator with this staff group. The percentage of female researchers in DPS

\[15\] HESA Staff record: Profile of academic staff in SET departments by cost centre and gender – 2001/02 to 2011/12
(26%) is above that of the UK benchmarking data for physics departments (19%), however these are mainly employed within PSS, a discipline that has no directly comparable UK data. Indeed, the vast majority of DPS research staff are clustered in PSS, reflecting its previous guise as a research institute prior to restructuring and a number of large external grants that enable PDRAs to be recruited there.

**ACTION POINT 11:**

11.1 Receive and scrutinise annual staffing reports, by gender and job role to monitor the gender ratio of DPS staff.

11.2 Raise the profile of university career development initiatives and encourage DPS staff to participate.

11.3 Monitor uptake of new initiatives to improve promotion rates of women.

(i) **Turnover by grade and gender**

Turnover data (Table 12) also covers the post-restructuring period, for comparison with Table 11. Since April 2011, 32 members of staff have left the department, (16% female, 84 % male) and the majority of women to leave were fixed-term contract (FTC) researchers.

Turnover is greatest for researchers, where FTCs dominate. The gender profile of this turnover is consistent with the researcher gender profile (21% turnover cf. 24% women) but is marginally lower than the percentage of female researchers employed on FTCs (30%).

The remaining leavers were all male voluntary leavers, with the exception of one professorial retirement.

Seven months prior to the end of a FTC, staff have prior consideration for any suitable vacancies that arise before advertising.

**ACTION POINT 12:**

Investigate gender ratio against duration of contract and fixed-term contract renewals.

<table>
<thead>
<tr>
<th>Male staff</th>
<th>Female staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of leavers</td>
<td>% of total leavers (All)</td>
</tr>
<tr>
<td></td>
<td>Vol Leavers</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Prof</td>
<td>1</td>
</tr>
<tr>
<td>SL (Central)</td>
<td>1</td>
</tr>
<tr>
<td>SL (ST)</td>
<td>0</td>
</tr>
<tr>
<td>Reader</td>
<td>2</td>
</tr>
<tr>
<td>L (Central)</td>
<td>1</td>
</tr>
<tr>
<td>L (ST)</td>
<td>0</td>
</tr>
<tr>
<td>Researcher</td>
<td>3</td>
</tr>
<tr>
<td>Total leavers</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 12 Turnover by gender and grade summed from data reporting points March 2012 & 2013. Vol = voluntary leavers. 

(Word count for Section 3 = 2951 words)

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16 Voluntary leavers are those that choose to leave post e.g. resignation. All leavers include retirees, dismissals and redundancies (including end of contract).
Supporting and advancing women’s careers: maximum 5000 words

Key career transition points

(a)

(i) Job application and success rates by gender and grade

Data are collected, by gender, on recruitment and appointment at faculty and university level, but have not previously been scrutinised by DPS.

Since 2010\(^{17}\) there have been 15 competitive vacancies for academic/research positions\(^{18}\) in DPS. 26% of these applications were from women (approximately two applications per vacancy, compared to five applications from men). 24% (9) of those interviewed were women.

14 of the 15 vacancies were for research positions with FTCs; the remaining vacancy was for a permanent academic position (SL\(^{19}\)). This post attracted 11 applications, of which five (47%) were from women.

Of those staff appointed in this period, three (27%) were women, which is consistent with the UK staff base for physics departments. This is also higher than the number of women interviewed, indicating there is no gender bias in the process. However, only 14% of those appointed to research positions on FTCs were women, below the UK average (22%) and the DPS staffing level for this group (26%). The reasons for this are not clear so further work is needed to understand the reasons for the lower than average appointment of women to research positions with FTCs.

ACTION POINT 13:

Receive annual DPS recruitment reports, by gender, job role and discipline from the faculty staffing team for analysis by DPS Management.

Of 74 applications to external fellowship schemes that were supported by DPS, 35% (26) were from women (including seven from existing female staff). For some external calls, the institution is limited in the number of submissions it can support, and an internal selection process, overseen by the PVC (Research), is used. All fellowship applications are read by the Associate Dean (Research) and feedback provided.

Five research fellows have been appointed within DPS since 2010 – two male, three female. Two of the women are Daphne Jackson Fellows, the third was an internal applicant to the UKSA’s Aurora Fellowship scheme. The continuation of this good practice will be monitored.

\(^{17}\) Data reporting March 2013  
\(^{18}\) Competitive vacancies exclude research fellowship positions (where individuals seek their own external funding) and contract renewals.  
\(^{19}\) SL is Senior Lecturer.
(i) Applications for promotion and success rates by gender and grade

Since 2010, 16 promotion cases have been progressed - four were from women. Table 13 shows two cases of these were progressed to the University Promotions Committees (33% of DPS cases progressed). The University Promotion Committee, in the same time period (including 2013 promotions), awarded three promotions to DPS staff: two (one male, one female) from Lecturer to SL and one (male) from Research Fellow to Senior Research Fellow. This promotions data is consistent with the DPS academic/research staff base over the last three years.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases progressed to faculty</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Cases progressed to University</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Promotions awarded</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 13 Promotion cases progressed from DPS to Faculty Management Team (FMT), then subsequently progressed to the University Promotion’s Committees.

Candidates are identified for promotion by their position on the salary scale or through appraisal. It is recognised that this process may not identify all potential candidates, particularly when staff rise through the salary scale via annual increments, but it may identify those that need additional responsibilities or shift in workload focus to complete their CVs in preparation for a promotion case. Staff are able to pro-actively identify themselves for promotion and submit cases directly to either FMT of the University Promotions Committee, however some women may be more reluctant than some men to do this. The evidence presented here does not indicate a gender bias in the promotion data at the lecturer and senior lecturer grades.

ACTION POINT 14:

14.1 Investigate feasibility of all academic and research staff submitting CVs annually for consideration.

14.2 Obtain and interrogate promotion data by candidate career age\textsuperscript{20} to establish if women are promoted at a career age equivalent to that of men.

14.3 Obtain and interrogate salary data by age for all staff to establish if a pay gap exists in DPS.

Feedback is provided to candidates at each stage in the process.

The University’s Chair & Readership sub-committee considers cases on a rolling basis three times a year. Any cases submitted to the Dean are sent to a professoriate panel (AD Research, HoD plus two other professorial staff) for comment. Candidates are then invited to a 1:1 with the Dean for feedback before submission to the sub-committee.

The University’s Equality and Diversity team have identified a number of barriers to progression for women academics to senior levels and the criteria for promotion are currently under review.

\textsuperscript{20} Career age = number of years at a career stage.
The University AS Team have responded to the new proposals and are concerned that they may not improve the promotion rates of female academics. Further work by the University AS Team is needed here.

Merit award data for 2013 has also been sought (Table 14) and is consistent with the DPS gender profile.

<table>
<thead>
<tr>
<th>Merit awards</th>
<th>Nomination</th>
<th>Faculty Awards Committee</th>
<th>Awards made</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>9</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Women</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 14 Numbers of staff nominated for merit awards in 2013. Instead of receiving a merit award one man was recommended as a potential promotion case

(b) (i) Recruitment of staff

An Effective Recruitment course is recommended for all staff undertaking recruitment to ensure fair selection is achieved, and is a requirement for interview panel chairs. Diversity is embedded in the university’s recruitment and selection guidelines; for example, the university provides guidance on the wording of job specifications and the gender balance of interview panels. Interview panel chairs are expected to ensure the panel is appropriately trained, including ensuring interviewers have undertaken diversity training, but this does not happen uniformly so improvements are needed.

**ACTION POINT 15:**

15.1 Identify academic staff who have not completed effective recruitment training within the last two years and have this included in their CDSA (Career Development and Staff Appraisal) objectives.

15.2 Investigate feasibility of holding a dedicated training day within DPS for all staff.

15.3 Create DPS-specific guidance on best practice in interviewing.

15.4 Obtain annual reports on the gender ratio of interview panels for DPS recruitment for monitoring.

(ii) Support for staff at key career transition points

All academic staff have five days in their workload for career development and training needs. A wealth of training and development is offered by several university units (e.g. HR, Library, Research Career Development Support Team), hence monitoring uptake is not possible. DPS does not offer its own training or career development activities, except for *ad hoc* training on laboratory equipment, subject to needs.
Within DPS, new academic and research staff (but not PDRAs, which appears anomalous) are allocated mentors. In addition the university provides on-line resources to support the mentoring process and a new university mentoring guide has recently been produced. However there are no clear guidelines on the mentoring process, duration or the expectations of the mentor/mentee and this practice is not formalised within DPS. For existing staff the process is less robust and few appear to have mentors, so improvements are needed here.

The University Athena SWAN action plan includes development of a coaching and mentoring programme to focus on women in senior roles, including specific development support in preparing cases for promotion. In addition, the university provides free access to the Employment Assistance Programme, an external programme offering support and counselling for life events.

**ACTION POINT 16:**

16.1 Lobby faculty to establish a mentoring scheme for all staff (including PDRAs) informed by the university’s mentoring guide and the outcomes of the University Athena SWAN action plan.

16.2 DPS HoD to actively encourage women to apply to the Leadership Foundation’s Aurora programme.

DPS management have actively encouraged all staff (particularly PhD students and PDRAs) to engage with the production of MOOCs (Massive Open Online Courses) as a key development opportunity. Staff have also been encouraged to engage with OpenPAD, the university’s formal academic teaching programme for HEA accreditation, but data on uptake is not available as this was only rolled out in October 2013. One man and three women currently hold HEA accreditation.

Formal training records are not held centrally and staff are instead asked to regularly update their record on the Workload Management System with details of training undertaken.

**Career development**

(a)

(i) **Promotion and career development**

The university has a robust CDSA process, which is compulsory and adopted by all departments. CDSAs occur on an annual basis for all staff (including PDRAs), usually during May-July when workloads are also under consideration for the coming academic year. Staff are informed of their appraiser during induction, and encouraged to seek feedback from colleagues to inform the appraisal process. Line managers are usually CDSA appraisers unless staff request otherwise.

Following CDSA, electronic copies of appraisal documents are signed by appraisee and appraiser, and sent to the Dean, who is required to report to the university annually about the percentage of staff completions.

The expectation is that CDSA completion should be 100%; for the last CDSA round (1st Oct 2012-13), 75% of DPS staff were appraised. Of those, only 40% are recorded as ‘complete’, where
completion is the submission of CDSA paperwork to the faculty, despite most staff participating in the process. This is a lower completion rate than for other departments within the faculty. The reason for this is unclear but there is no evidence of a gender bias in the completion data.

**ACTION POINT 17:**

17.1 Improve DPS engagement with CDSA towards 100% of all staff.

17.2 Include the ‘benefits of CDSA’ in the DPS survival document (see (ii) Induction and Training).

17.3 Use a DPS staff survey to understand why staff engagement and completion is lower than university expectations.

The criteria for promotion from Lecturer to SL for central academics require demonstration of excellence in two of the following areas: teaching, scholarship, administration/management, other (e.g. academic service). The university’s definition of scholarship includes traditional and non-traditional research activities and outputs, which mean staff can progress to SL and beyond even if not ‘research active’ in the traditional sense. Whether this explains the above-UK average number of women in DPS at SL level is not clear, but it could create a ‘glass ceiling’ inhibiting progression to the Professoriate. In light of this, the promotion criteria are currently under review at university level. This was in progress before the Athena SWAN process began.

(ii) **Induction and training**

The university offer guidelines on induction best practice, including a checklist of induction activities. Based on that, the Department Administrator welcomes all new starters and provides a general induction to DPS covering department arrangements, university policies and practices, health and safety and job role. There is also a Deanery induction. A DPS Survival Guide is also given to all new staff.

**ACTION POINT 18:**

18.1 Review the DPS survival guide to ensure it is up to date.

18.2 Review the DPS induction process and implement improvements, if required, based on best practice from other departments.

All staff new to the university are encouraged to undertake equality and diversity training as part of their induction via the Diversity Compliance eLearning module, provided by the University’s Equality and Diversity Team since Jan 2012. Completion of the module is recorded via the University’s Learning Management System (LMS) and monitored by the faculty’s staffing team. Additional diversity training is available from the university’s HR Staff Development Team.
Since 2011, five members of DPS staff have undertaken formal equality and diversity training, although none have completed the new Diversity Compliance module. This is an area for improvement.

**ACTION POINT 19:**

Encourage all staff in DPS to complete the Diversity Compliance eLearning module.

Annually, the new intake of PhD students have a three day induction programme developed by the Research Degrees Team and faculty covering an introduction to the OU and faculty, campus/departmental tours, health and safety and library. International students also have a second, dedicated induction. As part of on-going training, they must also give a seminar to CEPSAR annually and complete a mini-viva at the end of first year. PhD students can access the same training as staff, with supervisor approval. In 2013, new PhD students also have access to the Virtual Research Environment (VRE) aimed at Research Students, which includes a ‘training zone’. There appears to be good practice in this area.

(iii) **Support for female students**

Undergraduate students are distance learners using supported learning materials and most support is provided electronically rather than face-to-face, although supporting female students differentially on the physics level 2 ‘gateway’ module and will be investigated under action point 5.2.

PhD students are allocated at least two supervisors plus a third party monitor as standard, and dates of meetings are reported as part of the 6-monthly progress report process. Students are not obliged to draw on their third party monitor and anecdotal evidence suggests uptake is low. This is an area that needs further investigation.

**ACTION POINT 20:**

Work with the SAT student representative, supervisors and third party monitors to improve the third party monitoring system particularly for women.

Any PhD student can access the University’s Careers Service who offer a ‘Career Planning and Job Seeking Workbook’ at the postgraduate induction. The OU Research School fund a number of career workshops and a careers’ consultant for researchers to access and is a signatory of Vitae, which provides career development for research staff. The Careers Service has recently helped with content for the new VRE for researchers. PhD students are invited to all University Athena SWAN networking events.

There is no dedicated careers service for staff, but they can access any of the Careers Service’s extensive online resources.

**ACTION POINT 21:**
Raise awareness of the University Career’s Advisory Service among DPS PhD students and staff, particularly PDRAs.

Organisation and culture

(a)

(i) Male and female representation on committees

Formal committees are at faculty not department level. The only formal committees in the faculty are Science Faculty Committee (SFC), of which all academic/research staff are members, and Science Programme Committee (SPC), which governs all the teaching in the faculty. Membership of SPC is based on university requirements. Other groups such as Science Research and Enterprise Committee and the CEPSAR Directorate do not constitute part of the formal governance structure in the university and membership of this group goes with faculty role. Membership of the DPS Department Management Team (HoD, HoDis, APD) also comes with role.

Other positions of responsibility are also available for rotation, and are openly advertised. All positions carry an allocated workload tariff and staff are strongly encouraged to apply for these positions, regardless of gender. Some roles (Associate Deans, HoDs, Research Centre Directors) also come with additional remunerations. Table 15 shows the distribution of DPS staff into positions of responsibility.

<table>
<thead>
<tr>
<th>Position</th>
<th>Male staff</th>
<th>Female</th>
<th>DPS male</th>
<th>DPS female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean &amp; Director of Studies</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head of Departments</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Heads of Disciplines</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>CEPSAR director</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPSAR Deputy Directors</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Biomedical Research Network</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Deans</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Deputy Associate Deans</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Associate Programme Directors</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Academic Conduct officers</td>
<td>0</td>
<td>3</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Science Research Committee</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Director OpenScience Lab</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Table 15. Distribution of positions of responsibility within the Science Faculty, and posts held by DPS staff. CEPSAR is Centre for Earth, Planetary, Space and Astronomical Research.

DPS has a good representation of women at HoD, Associate Dean and Deputy Associate Dean levels, positions that help to build a strong CV. Lack of female leadership of the disciplines and on research committees (CEPSAR and Science Research Committee) is of concern and is addressed in Action Point 22.
(ii) **Female : male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts**

The use of fixed term contracts (FTCs) is restricted to the researcher job role (PDRAs and Fellows) with the exception of one fixed term professorial post. In 2013\textsuperscript{21}, more than twice as many men (n=16, 24% of total academic/research staff) than women (n=7, 10% of total academic/research staff) hold FTCs. The distribution of women on FTCs compared to those on permanent contracts is 33%, comparable with the distribution of men (34%). Therefore there does not appear to be any disproportionate representation of women on FTCs. The growth in FTC research staff has also been equal (two men, two women), and is reflected in the recruitment data.

(b)

(i) **Representation on decision-making committees**

DPS and faculty positions of responsibility are openly advertised and until now have not been gender monitored.

**ACTION POINT 22:**

Monitor the appointment of staff to positions of responsibility to maintain the healthy representation of women from DPS who hold these positions and actively encourage women to apply for research-related responsibilities.

Staff commitment to DPS/faculty/university committees, groups and teams is monitored within the CDSA process.

(ii) **Workload model**

An online workload management system is used by all academic and research staff across the university, visible to that individual, the HoDi/HoDs and faculty administrators. Staff allocate their duties in consultation with their line manager (following CDSA) for the forthcoming academic year, taking into account individual requirements and institutional strategy. Workload plans are organic and can be updated as activities change, with approval.

Every task carries a tariff (including outreach, work on JUNO and Athena SWAN, service to external bodies), which is set at faculty or university level. Each member of academic staff is expected undertake approximately 100 days of teaching (unless they have research funding that allows them to be bought out of some or all teaching) and 79 days research within their 217 working days. These norms have been determined to allow adequate balance of research time and other activities within an individual’s workload. These norms do not apply to staff tutors who also undertake regional duties (that can include teaching) that constitute up to 60% of their allocated time. The remaining 40% is for central work, which can also include teaching plus study leave and other tasks. Non-standard tasks, such as membership of the JUNO and Athena SWAN teams are also built into the system and a tariff has been devised for these.

\textsuperscript{21} Data reporting point March 2013
At the end of each academic year, staff are also asked to complete ‘actuals’ for the previous year. From this, approximate information about teaching:research split can be identified. Prior to restructuring, the old Physics & Astronomy department had a workload split between teaching and research for central academics that was approximately 50:50 for men, but 75:25 for females, biased towards teaching. In 2013, the recorded workloads at the end of the first full year of DPS (12/13 academic year) were 36:64 for males and 50:50 for females. This reflects an influx of staff (including a single female academic) from the former PSSRI (a research institute) where the teaching:research split was 25:75 because staff were working on external research grants. In addition, six female members of staff have departmental/faculty positions of responsibility (Table 16) that impacts on the teaching/research balance.

**ACTION POINT 23:**
Investigate workload allocations by job role, career stage, and gender and ensure teaching:research allocations are balanced equitably for women and men.

**(iii) Timing of departmental meetings and social gatherings**

Departmental meetings are scheduled during core office hours (10am-4pm); any staff (including those working at home, conferences or in Regional Offices) are also able to join by video or conference call. There is no expectation that staff must attend campus for meetings, which is commensurate with a distance learning institution where students and staff interact via online communications technology.

DPS social activities are organised by Hooke Soc. All DPS staff and PhD students are members of Hooke Soc., but organisation of events is led by an elected committee of PhD students (two women, one man). Although Hooke Soc. is in its infancy, they have already organised a number of events (e.g. quizzes and a murder mystery evening). They have recently initiated a staff survey about the types, timing and cost of events staff and students would prefer. Results of the survey are forthcoming.

The department also holds a summer BBQ and a Christmas meal for staff and PhD students, and these are held during working hours minimising disruption to home-life.

A female member of staff has independently started a lunchtime networking event for any DPS staff with very young children, called ‘nappy chat’.

**ACTION POINT 24:**

24.1 Invite a Hooke Soc. committee member to become part of the SAT, with the approval of their supervisor.

24.2 Hooke Soc. to informally monitor attendance at events by gender and job role (to ensure events are attractive to all staff categories).

24.3 Hooke Soc. to implement a 2 week minimum advance notice period for any planned event to
allow planning for childcare etc.

24.4 Promote University Athena SWAN networking events within DPS.

(iv) Culture

The DPS management team meet on a weekly basis, with the HoD also sitting on the faculty management team, which also meets weekly. Academic staff meetings are held quarterly, and ‘all staff’ meetings annually. It is not practicable to hold either type of staff meeting more regularly and sometimes change happens too fast to be discussed by relevant groups. Further communication strategies need to be put in place cope with the rapid pace of change.

In addition not all categories of staff are present at the relevant meetings, in particular PhD students are represented at academic meetings, PDRAs/Fellows and academic-related staff are not. This needs changing.

**ACTION POINT 25:**

25.1 Invite representatives from other staff groups (e.g. PDRA/Fellows and academic-related staff) to all academic meetings.

25.2 HoD to send weekly message to staff regarding outcomes/decisions from department and Faculty Management Team meetings.

Values and expectations of staff are not explicitly defined, but staff are encouraged to work (and be appraised) within the university’s Valued Ways of Working (VWW) framework that defines professional behaviours, and/or the Leadership Competency Framework.

**ACTION POINT 26:**

Determine a DPS ‘values and expectation’ statement linked to the university’s VWW framework.

The university’s publicity materials, including its website, reflect its philosophy of openness and equality. Where possible, images of our own students, staff and alumni are used, rather than library shots, and care is taken to represent the diversity of the OU community. However, the DPS web presence features very few images of any individuals (male or female), except within news items and instead uses science-themed images, which may lead to the impression that few people are engaged in research and other campus activities, and project an unwelcoming image. A photograph of the HoD (Prof. Monica Grady) accompanies her monthly newsletter on the website but this only goes to staff and students. The newly formed Hooke Soc. also lacks any web presence, despite their contribution to the DPS culture. DPS have installed a staff photoboard at the entrance to the department, however this is incomplete. Several improvements can be made here.
ACTION POINT 27:

27.1 Include active images of DPS staff members on the DPS web pages, where appropriate, and in addition to portrait-style photos on staff profiles.

27.2 Hooke Soc. to investigate possibility of a web presence on the DPS website.

27.3 Ensure the photoboard is complete for all staff members.

27.4 Devise a public ‘quick find’ guide detailing the location of staff.

(v) Outreach activities

Outreach activities are not confined to the area around the main campus and may also take place from our 13 offices throughout the UK. Our outreach also happens through a variety of media including BBC TV and radio programmes co-sponsored by the OU (e.g. ‘Bang goes the Theory’, ‘Frozen Planet’), iTunesU; YouTube; FutureLearn MOOCs; and OpenLearn all of which have national, and global, reach. Staff are encouraged to become involved in these media outputs and female staff have also been encouraged to attend external women-only BBC-led courses. The OU also runs its own in-house training; to date 58 women and 67 men have participated. Action to develop skills training for female academics in media presentation and production is included in the university Athena SWAN action plan.

In DPS there are a number of schemes that promote contact with local schools and colleges.

The Ogden Trust School/University partnership (led by a female DPS SL) links the OU with five schools for activities such as sixth form ‘conferences’ and visits to DPS labs. Expansion of this scheme to more schools is planned.

The university is one of the 12 RCUK-funded Schools-University-Partnership Initiatives (SUPI). This is a university-wide project called ‘Engaging opportunities’ involving a team of science educators and communicators. SUPI works with a Teaching School Alliance of 12 local schools and aims over three years to engage 3,800 11 to 19 year-old Milton Keynes school students with authentic, contemporary and inspiring research in a range of academic disciplines. Liz Whitelegg (SAT co-chair) is a co-investigator with a diversity remit for this project and has advised on the nature of the activities from a gender perspective.

The OU is also one of the eight RCUK-funded ‘Catalysts for Public Engagement’.

CEPSAR\textsuperscript{22} have invited science students from local schools to campus to attend seven annual Christmas lectures. At least two of these lectures were given by female researchers. This year it will be a joint event with the ‘Engaging Opportunities’ project and consist of four 10-minute talks by OU academics and research students - two male, two female. The event will also be webcast so schools who cannot attend on campus can watch in real time and send questions using Twitter.

\textsuperscript{22} Centre for Earth, Planetary, Space and Astronomical Research
IoP seminars are hosted monthly on campus. Since 2011, 26% (5) of the IoP speakers were female, and this percentage is consistent for each year.

Other outreach activities are ad hoc, with individuals engaging with a variety of publics opportunistically. The annual HEBCIS23 return for 2012/13 shows 60 events led by five female staff (23% of female academics and researchers) and 33 events led by eight male staff (17% of male academics and researchers), although this data is still incomplete and does not capture all the outreach activity. The university is now part of SEPnet and will be working closely with the SEPnet Outreach Coordinator and Diversity Lead to benefit from a coordinated approach to outreach across the South East. In light of this, DPS outreach activities have become more formalised. Two Outreach Coordinators (both male) have been appointed, led by a male SL. This team is responsible for both promoting outreach locally as well as monitoring and facilitating individuals’ outreach engagements. Outreach activity is recognised in workload planning and in promotion.

**ACTION POINT 28:**

28.1 Encourage engagement of DPS female staff in media training courses and monitor these via CDSA.

28.2 Ensure women are equally participating in in media productions (e.g., BBC TV programmes; iTunesU; YouTube.)

**(vi) Flexibility and managing career breaks**

**(a)**

**(i) Maternity return rate**

Since 2010, only one member of academic/research staff (a PDRA) has taken maternity leave, returning to DPS on a new contract (an early career fellowship) on a part-time basis.

The department also encourages the appointment of Daphne Jackson Fellows, with two being appointed in 2013. They were very positive about the support given by the department throughout the application and appointment process. One fellow said:

“My return to work was proactively supported by the OU through the guidance provided by academic and admin staff and payment of any expenses incurred during this process including childcare. I was regularly invited to join DPS activities (academic and social) before officially starting my post and even attended a conference partially funded by the OU”.

The other Fellow said:

“I recently returned to research as a Daphne Jackson Fellow after a 6-year career break. Returning after such a long break seemed daunting at first, but my experiences have been very positive so far and I owe it a

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23 HEBCIS = Higher Education Business and Interaction Survey. An annual survey run by HEFCE.
lot to my mentor who has been very supportive and understanding. I think that it is essential for returners to have strong mentor support”

(ii) Paternity, adoption and parental leave uptake

New fathers are strongly encouraged to take their allotted paternity leave. Since 2010, three male academic/research staff have taken paternity leave (one lecturer, one PDRA and one research fellow). There have not been any formal requests for adoption or parental leave in DPS in the last three years.

(iii) Numbers of applications and success rates for flexible working by gender and grade

Formal requests for flexible working have only been recorded by the university’s HR Unit since 2012 and this only records headcount and unit; in 2012 there were only 12 formal requests for flexible working across the university. This may be because of the embedded flexibility of OU academic work and that flexible working requests are often informal by negotiation with line managers. DPS have not received any formal requests for flexible working in the 2010-13 period. Monitoring requests by gender would promote transparency and encourage equity.

ACTION POINT 29:
Flexible working requests to be recorded and monitored by gender by the faculty.

Since 2012, there have also not been any requests for change of circumstances from full time to part time, however two part time members of staff in DPS (one male, one female) have had their hours increased, as requested, to return to their original working pattern after a period of part-time work.

(b)

(i) Flexible working

The university has a clear Flexible Working Policy that the HoD strongly supports. Examples of flexible working include home-working and job-sharing. As a UK-wide distance learning institution, which makes extensive use of e-learning, remote communication and conferencing facilities, we are in a particularly strong position to enable staff to work flexibly; this is particularly valued by staff with caring responsibilities.

Academic/research staff do not have defined working hours, allowing them to work flexible hours and from home or other locations as necessary.

(ii) Cover for maternity and adoption leave and support on return

The reallocation of teaching and research duties as cover for those taking parental leave will vary from case to case depending on the individual’s role. If the leave is substantial, duties are either shared out to appropriate staff (with their own workloads adjusted), a backfill appointment will be made, or their contract is paused (for PDRAs where funding rules allow). Staff also make use of
ten paid ‘Keeping in touch’ (KIT) days. Staff covering will either have their hours increased (for part time staff), and/or the additional workload recorded at CDSA. This needs further investigation.

When staff return from a substantial period of parental leave, they have a return-to-work interview with their line manager. This includes discussion of the support needed to allow them to return to their original duties. Staff who have taken maternity leave are normally allocated a reduced teaching load on their return, but this is discretionary. Formalising this is part of the University Athena SWAN Action Plan.

A recent returner said:

“When I came back from maternity leave I was given a light teaching load, it only picked up few months after my return to work. My line manager has been very understanding and helpful and so were many of the colleagues. However, whilst some individuals were quite understanding, I didn’t feel some established practice was in place throughout the department/faculty.”

The Science Faculty advises mentoring for women returning from maternity/adoption leave, however in practice this is not always initiated.

ACTION POINT 30:

30.1 Investigate the use and effectiveness of KIT days.

30.2 Lobby the faculty to formalise a norm for a reduced teaching load for returners from maternity leave.

30.3 Investigate how cover for maternity/adoption leave works in practice.

30.4 Monitor the return to work process including: encouraging line managers to complete and submit return-to-work interview paperwork, and ensure DPS returners are allocated a mentor.

(Word count for Section 4 = 4864)
5. **Any other comments: maximum 500 words**

Concurrent with this submission to Athena SWAN, DPS are also submitting an application to JUNO for Practitioner status for the whole department, building on the Practitioner award for the previous Physics & Astronomy Department only.

The university’s bi-annual staff surveys consistently show women report higher job satisfaction and lower levels of intention to leave; the gender split of respondents reflects the university’s staff profile (69% female).

Compared to the university average, DPS staff reported higher levels of work-related stress, higher work intensity and poor work-life balance. In addition, dissatisfaction with the faculty and university management was significantly below that expressed by the university average. Department-level data is not currently available by gender.

Whilst disappointing results, this survey was undertaken shortly after faculty restructuring and during implementation of major changes to the university’s curriculum and focus in light of changes to fees structure and other external drivers; these activities generated significant short-term increases in workload for most staff and uncertainty about the university’s future. DPS responses were not atypical of other departments in the faculty.

The Academic Leadership Programme has been central to the (re)training of senior academic staff to improve the management of the university, and the DPS HoD has participated in this. The Merit Award Process, Workload Planning and CDSA processes have been improved, and key competencies developed to which staff should be mapped during appraisal (Valued Ways of Working or the Leadership Competency Framework).

In 2013 within DPS, after one full year of change implementation, a pilot survey has been initiated by the HoD to all DPS staff to determine the success of the departmental management structure. Results of this and the 2013 PULSE survey (an short annual whole university survey) are forthcoming.

**ACTION POINT 31:**

31.1 Analyse results and success of pilot DPS staff survey.

31.2 Initiate annual DPS staff survey in May/June for results to be reported at summer annual all-staff meeting.

Positively, the 2012 Staff Survey showed that DPS staff were above the university average for satisfaction with their opportunities for promotion.

*Word count for Section 5 = 337*
6. **Action plan**

Please see attached Action Plan.