

Department Application  
Silver Award



Department application	Silver	Actual
<b>Word limit</b>	<b>12,000</b>	<b>11,998</b>
<i>Recommended word count</i>		
1. Letter of endorsement	500	510
2. Description of the department	500	491
3. Self-assessment process	1,000	894
4. Picture of the department	2,000	2295
5. Supporting and advancing women's careers	6,500	6,558
6. Case studies	1,000	992
7. Further information	500	260

<b>Name of institution</b>	The University of Bath
<b>Department</b>	Department of Chemistry
<b>Focus of department</b>	<b>STEMM</b>
<b>Date of application</b>	November 2018
<b>Award Level</b>	<b>Currently Bronze</b>
<b>Institution Athena SWAN award</b>	<b>Bronze (April 2017 submission)</b>
<b>Contact for application</b> Must be based in the department	Dr Petra Cameron
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## 1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT

Recommended word count: Silver: 500 words [510/500 words]



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13<sup>th</sup> November 2018

### Application for an Athena SWAN Silver Award

I wholeheartedly endorse the application made by the Department of Chemistry for an Athena SWAN silver award. In 2015 when I took over as HoD, the Department was perceived as an attractive environment to practice chemistry with staff reporting that our strengths included being “very supportive colleagues” and “a flexible working environment” but it was notable that the Department had low female representation at senior levels. As a mentor on the Aurora programme, I wanted to take a direct role in encouraging female colleagues to pursue leadership opportunities. I am proud that over the last four years the Department has achieved a 100% success rate in promotion applications including four women to personal chairs and with the external appointment of Professor Carmen Domene, the number of female professors in Chemistry is now five (from zero in 2014).

I have actively supported the DSAT ensuring a ring-fenced budget for DSAT activities and to implement the Bronze Action Plan. The DSAT encompasses professional and support staff, postgraduate research students (PGR) and postdoctoral researchers (PDRA). I have participated in the majority of DSAT meetings and helped lead on improving the engagement of students and PDRAs in the Department culture through direct consultations, open meetings and the establishment of new PGR and PDRA Networks with funding for social and career development activities from the Department operating budget. I believe this was important as the rapid growth of the Department since 2013 has meant that research groups are spread across four buildings on campus and there was the risk of alienation amongst some groups. There have been notable successes including the establishment of the Bolland symposium for showcasing PhD research and introducing career development workshops. I believe the Department culture remains supportive and inclusive with events like the weekly “coffee morning” and “Chemistry Bake-Off” helping foster a positive, balanced working culture for all. It is important that all staff feel part of the Department and invested in its success. I confirm that the information presented in the application (including qualitative and quantitative data) is an honest, accurate and true representation of the institution/department.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. G. Frost', with a horizontal line extending to the right from the end of the signature.

Professor Christopher G. Frost.

As incoming Head of Department, I fully support this application for an Athena SWAN silver award. The actions initiated by my predecessor have allowed us to make real progress towards gender equality and we now have one of the highest numbers of female professors in a UK chemistry department. I'm conscious, however, that more needs to be done, which is why I'm fully committed to the Action Plan. Space constraints and a split location over several different sites on campus present significant challenges to departmental cohesion, so I will continue to support the DSAT as well as the postgraduate and postdoctoral Networks through the operating budget and will attend as many DSAT meetings as I can. I am totally committed to ensuring that the Department of Chemistry at Bath provides a welcoming and nurturing environment that enables all staff and students to thrive.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'A. D. Burrows', written in a cursive style.

Professor Andrew D. Burrows.

## 2.0 DESCRIO IO FO HE DEOAROMEQ

Recommended word count:0Bronze: 50 words0|0Silver: 50 words[491/50 words]0

The Department of Chemistry at Bath has grown rapidly over the last ten years and has a strong profile in both research and teaching. In the 2014 Research Excellence Framework (REF) 98% of our research was classed as world leading or internationally excellent - placing us 2<sup>nd</sup> in the UK on this measure. We have a current research portfolio of £21.5 M; consistently high satisfaction rates in the National Student Survey (94% in 2017) and high student employability rates. We have a long-term commitment to women in science and have been engaging with Athena SWAN since 2009.

The department is home to 134 postgraduate students (40% female) and 472 undergraduate students (41% female) (See Figure 1). There are 46 teaching and research staff (35% female) and 52 post-doctoral researchers (PDRAs, 46% female). Teaching and research staff are divided into four teaching sections (physical, computational, inorganic and organic) and are line-managed by Heads of Section (4 males); these roles are rotated every 3 years. There are 23 professional and support staff (P&SS), which includes 14 technical/lab staff (43% female) and 9 administrative staff (100% female). 10 P&SS are line-managed within the department (70% female); 13 (62% female) are line-managed directly by the Faculty of Science. Figure 2 outlines the management structure of the department.

Research and teaching staff are housed across four different buildings, about 5 minutes' walk apart. Throughout the expansion and the move to multiple buildings, the department and DSAT has worked hard to maintain an inclusive and collegiate atmosphere. In our most recent staff culture survey (November 2017) **85% of staff agreed that the department had an inclusive environment (81% of female staff)**. In the 2017 Student survey **92% of post-graduate research (PGR) students and 87% of undergraduate students agreed that department activities were welcoming to both men and women.**

*"Even though the department is split over several buildings, I have never felt isolated. There is a nice open atmosphere within the department, in both research and social aspects, that helped me integrate into the team very quickly"*

*"PGR Network events such as the Great Chemistry Bake-off make the department a really sociable place to work. The opportunity to talk science in a relaxed environment has helped me feel at home in the department."*

The department was proud to obtain an Athena SWAN bronze award in 2015. Our **Bronze Action Plan** led us to change our appointments and promotions procedure to ensure more applications from highly qualified women. This has helped us appoint/promote **five new female professors**, with Karen Edler becoming the first female professor in the department in 2015 (Case Study 2). We now also have thriving networks for PDRAs and PGR students. Our priorities over the next four years are to continue to support women to apply for senior roles within the department and to increase the number of female PDRAs making the transition to lectureships.

### Key Bronze Achievements:

- Five female professors promoted/appointed.
- Ahead of the HESA sector benchmark for female staff in chemistry for the first time.
- Thriving PGR and PDRA Networks.

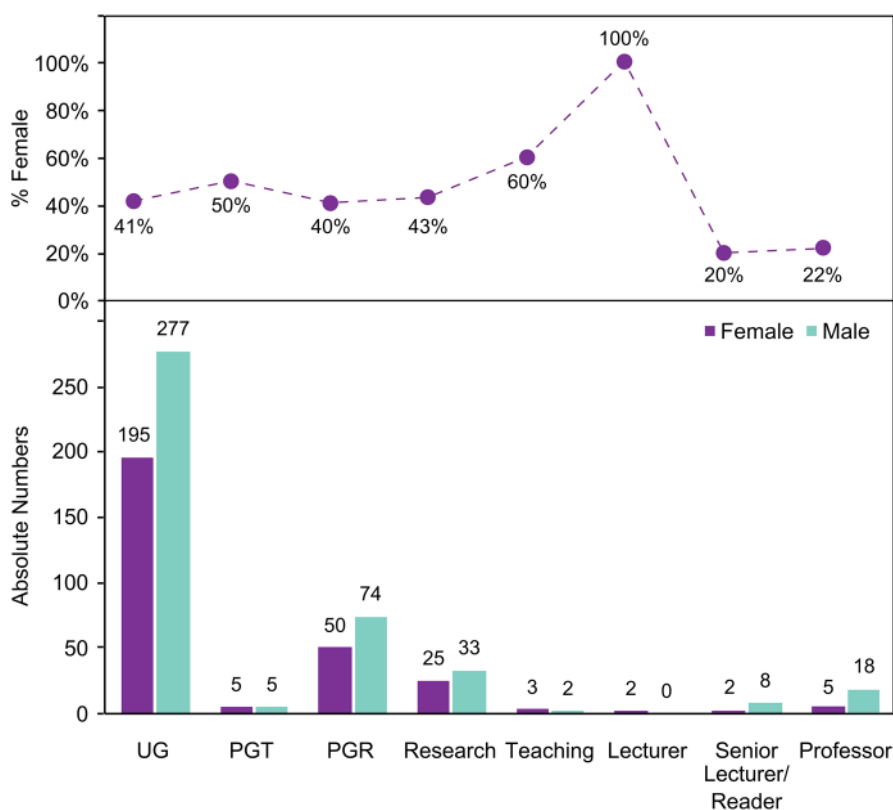


Figure 1. The total number of academic and research staff and students by gender in the Department of Chemistry; staff numbers are from April 2018. Student numbers are University headcount in July 2017.

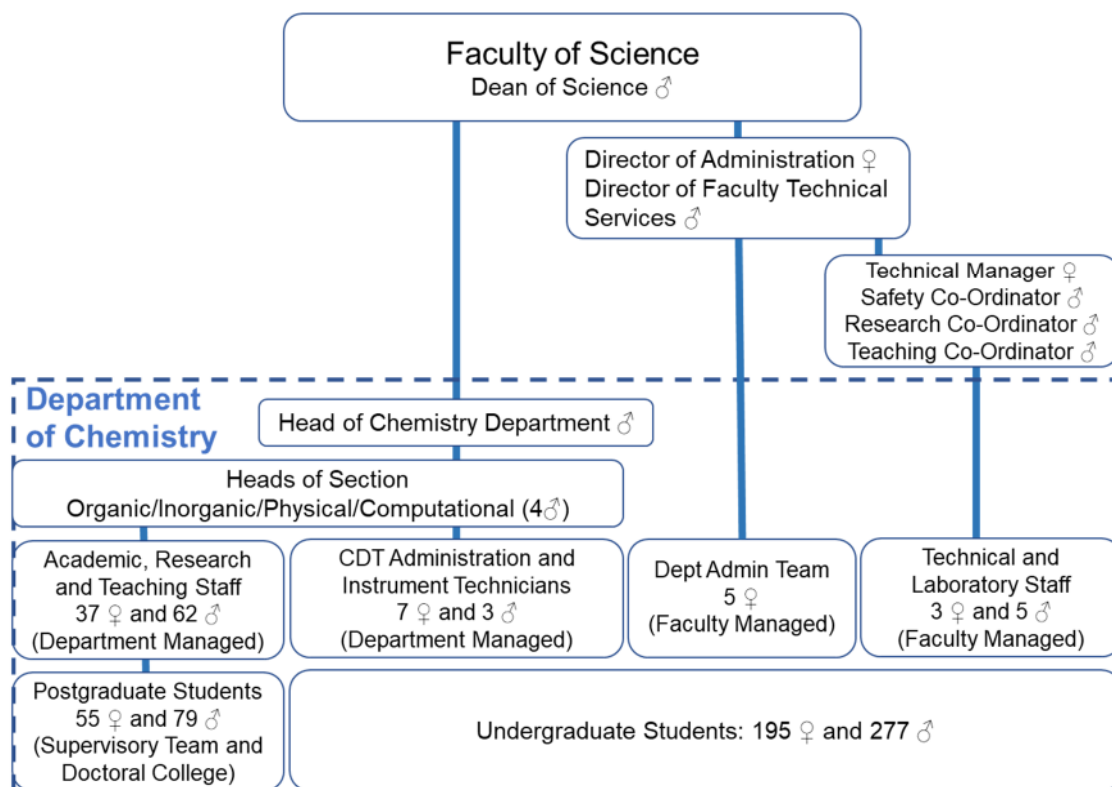


Figure 2. Schematic showing the management structure in the Department of Chemistry. Staff outside the dashed blue line work across multiple departments. There are 13 staff in chemistry who are line managed by the faculty, the remaining staff are line managed within the Department.

### 3.THE SELF-ASSESSMENT PROCESS

Recommended word count: Silver: 1000 words [894 words]

(i) a description of the self-assessment team

The DSAT has 19 members (47% female). Membership of the committee is attached to four department roles which are the Head of Department (HoD); the Director of Studies for Postgraduate Teaching; the chair of the Staff Student Liaison Committee and the Admissions Tutor. All of these roles are rotated every three years. We also have representatives from the PGR and PDRA Networks. The rest of the committee is a mixture of research, teaching and P&S staff. When a position on the DSAT is vacant, an e-mail is sent to all staff asking them to put themselves forward. If no one comes forward, the committee makes a list of candidates to approach, ensuring we maintain broad representation. The whole committee makes decisions on recruitment. The committee contains staff at every career stage, as well as a mixture of part-time (4, 75% female) and full-time staff (15, 33% female). Two DSAT members are on fixed term contracts (both male). At least half of DSAT members have caring roles and all have dual career families. Three committee members are faculty line-managed and 16 are department line-managed. A full list of the members is given in Table 1 below.

Table 1. Self-assessment team members and their roles within the department

<b>The Self-Assessment Team</b>	<b>Role in DSAT</b>		
<i>Dr Petra Cameron</i> (♀) <i>Joined DSAT: Nov 2017</i>	Senior Lecturer in Physical Chemistry and Chair of the DSAT (full time)		
<i>Ms Kate Remington</i> (♀) <i>Joined DSAT: July 2017</i>	Department Coordinator and Secretary to the DSAT (0.6 FTE)		
<i>Dr Stephen Bromfield</i> (♂) <i>Joined DSAT: March 2016</i>	Director of Undergraduate Laboratory Teaching and Teaching Fellow (full time)		

<p><i>Prof. Chris Frost</i> (♂) (<i>outgoing</i>)</p> <p><i>Joined DSAT: Sept 2015</i></p> <p><i>Prof. Andy Burrows</i> (♂) (<i>incoming</i>)</p> <p><i>Joined DSAT: Sept 2018</i></p>	<p>Head of Department (HoD) and Professor in Organic Chemistry (full time)</p> <p>Incoming HoD and Professor of Inorganic Chemistry (full time)</p>		
<p><i>Dr Antoine Buchard</i> (♂)</p> <p><i>Joined DSAT: Sept 2015</i></p>	<p>Royal Society University Research Fellow and Chair of the Student Staff Liaison Committee (full time)</p>		
<p><i>Mr Josh Byers</i> (♂)</p> <p><i>Joined DSAT: Jan 2018</i></p>	<p>Laboratory Assistant UG Teaching Laboratories (term-time only)</p>		
<p><i>Prof. Saiful Islam</i> (♂)</p> <p><i>Joined DSAT: April 2016</i></p>	<p>Professor of Materials Chemistry (full time)</p>		
<p><i>Dr Andrew Johnson</i> (♂)</p> <p><i>Joined DSAT: Sept 2016</i></p>	<p>Director of Studies (DOS PG Research) and Senior Lecturer in Inorganic Chemistry (full time)</p>		
<p><i>Dr Vera Krewald</i> (♀)</p> <p><i>Joined DSAT: Sept 2017</i></p>	<p>Research Prize Fellow in Computational Chemistry (full time)</p>		
<p><i>Dr David Liptrot</i> (♂)</p> <p><i>Joined DSAT: Sept 2017</i></p>	<p>Research Prize Fellow in Inorganic Chemistry (full time)</p>		
<p><i>Dr Rosa Macey</i> (♀)</p> <p><i>Joined DSAT May 2018</i></p>	<p>Lab Technician UG Teaching Laboratories in Physical Chemistry (full time)</p>		



<i>Ms Maria Odyniec</i> (♀) <i>Joined DSAT: Sept 2017</i>	Co-Chair of the PGR Network and PhD Student (Year 2) (full time)		
<i>Dr Dan Pantos</i> (♂) <i>Joined DSAT: Sept 2013</i>	Senior Lecturer in Organic Chemistry (full time)		
<i>Dr Fabienne Pradaux-Caggiano</i> (♀) <i>Joined DSAT: Sept 2013</i>	Research Associate in Organic Chemistry (0.8 FTE)  PDRA Network Representative		
<i>Dr Asel Sartbaeva</i> (♀) <i>Joined DSAT: Sept 2013</i>	Royal Society University Research Fellow and Lecturer in Inorganic Chemistry (full time)		
<i>Dr Gan Shermer</i> (♀) <i>Joined DSAT: Sept 2013</i>	Admissions Tutor and Senior Teaching Fellow (0.8 FTE)		
<i>Mr Sam Spring</i> (♂) <i>Joined DSAT: Sept 2017</i>	Co-Chair of the PGR Network and PhD Student (full time, Year 2)		
<i>Ms Hannah Sullivan</i> (PG representative) (♀) <i>Joined DSAT: Sept 2017</i>	Secretary of the PGR Network and PhD Student (full time, Year 3)		
<i>Dr Adam Squires</i> (♂) <i>Joined DSAT: May 2018</i>	Senior Lecturer in Physical Chemistry (full time)		

(ii) [an account of the self-assessment process](#)

The DSAT has met monthly since 2012 and the agenda covers a wide range of topics including implementation of the Bronze Action Plan; monitoring progress towards department and University equality, diversity and inclusivity (EDI) goals; discussion of any specific issues raised by staff or



students and organisation of social events. The PGR and PDRA Networks grew out of **Bronze Actions** and both networks make standing reports at DSAT meetings. They also raise issues experienced by their members.

Since 2015 the DSAT has evolved to have an expanded remit, we are now a point of contact for any member of staff or student wishing to raise an issue about EDI. DSAT ensures that the department can align its Athena SWAN actions with the University of Bath Statement of Equality Objectives (SEO) 2016-2018 which aim to improve the working culture for all staff.

The Head of Department is actively involved in the DSAT and in 2017/18 attended 70% of DSAT meetings; this ensures senior management support for Athena SWAN actions. The DSAT Chair has a permanent seat on the Department's Executive Committee (Exec) which meets weekly throughout the year. EDI initiatives as well as specific issues raised by staff and students are brought directly to Exec for action. To disseminate information about DSAT progress, the DSAT Chair makes a standing report at our bimonthly all-staff meetings. The DSAT Chair also attends regular Faculty Athena SWAN meetings led by the Faculty of Science Athena SWAN Champion, who acts as a point of contact between the DSAT Chairs and the University Self-Assessment Team (USAT). Finally, the DSAT Chair acts as the EDI representative for the department and attends quarterly EDI Network meetings. This ensures that best practice is shared and DSAT actions are aligned with USAT and EDI initiatives. A schematic showing the reporting structure is shown in Figure 3.

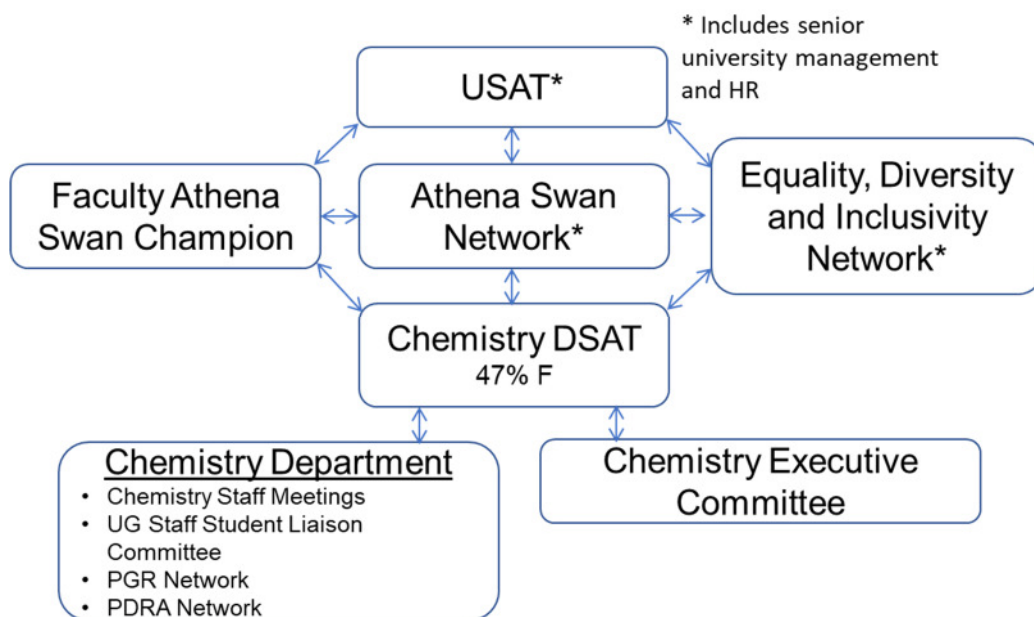


Figure 3. A scheme showing the reporting structure of the Chemistry DSAT

The DSAT runs the annual staff and student culture surveys, which monitor progress towards bronze actions. DSAT sets the questions, analyses the responses and brings a summary of the outcome to Exec and a staff meeting. Where the survey raises issues beyond the bronze actions, the DSAT develops and implements new actions. The survey response rate has increased strongly since 2015, a breakdown is shown in Table 2. DSAT activities during the self-assessment period are collated in Table 3. This submission was created by all DSAT members, with the final version put together by a smaller working party. The working document was accessed and commented on by all the DSAT team during the writing process via a Dropbox link. All department staff were given a chance to



comment on the first complete draft of the document. We also ran two well attended ‘action plan’ meetings for all staff in July 2018 which allowed any member of staff to propose silver actions.

*Table 2. Responses to the DSAT Staff culture survey broken down as a percentage of all staff and by gender.*

Year	Response Rate (as a function of all staff)	% Female respondents	% Male respondents	% respondents who prefer not to give their gender.
2015	48% (42 staff)	40%	50%	10%
2016	58% (53 staff)	38%	51%	11%
2017	79% (78 staff)	39%	51%	10%

*Table 3. Activities carried out during the self-assessment period*

Activity	Frequency
DSAT Meetings	Monthly
Staff Culture Survey	Annually in Oct/Nov
Student Culture Survey	Annually in Oct/Nov
Chemistry Executive Committee Meetings	Weekly
Chemistry Staff Meetings	Every two months
Equality, Diversity and Inclusivity (EDI) Network meetings (University wide)	Every three months
Faculty DSAT Chair Meetings	Every two months
Athena SWAN Network Meetings (university wide)	Quarterly
ECU training day	September 2017
ECU panel observation	March 2018
UG Staff Student Liaison Committee	Five times across two academic semesters
PG Student Staff Liaison Committee	Quarterly
PGR Network Meetings	Fortnightly
PDRA Network Meetings	Fortnightly
All staff ‘action plan’ meetings	Twice in July 2017
‘Great Chemistry Bake Off’	Annually in November
Department Christmas dinner	Annually in December
Department family summer party	Annually in June
‘Fume hood shut down socials’	Quarterly

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

The DSAT will continue to meet monthly to implement the Athena SWAN action plan, to raise any EDI questions brought to us by staff, to disseminate USAT and EDI initiatives and to organise departmental social events. Action Plan progress will be reported to Exec and disseminated at staff meetings. Links with the PGR Network, the PDRA Network and the UG SSLC will be maintained and



strengthened. The DSAT chair will attend two PDRA and PGR Network meetings per year to disseminate progress more widely.

DSAT will expand membership to include two undergraduate representatives who will be recruited from the SSLC (**Silver Action (SA) 1.1**). DSAT initiatives will continue to be advertised using the department wiki and the plasma screens at the entrances to our buildings. The gender balance on DSAT has improved since 2015, moving from 58% F to 47% F. We also have a balance of representation from PhD students, PDRAs, technical and administrative staff, teaching fellows and academic staff. In the next 3 years we will monitor the composition of DSAT annually to maintain this balance of experience. We will continue to run the annual staff culture survey and in 2019 survey questions will be redesigned to better monitor progress towards silver actions (**SA 1.2**). To improve tracking of student culture, we will split the current student culture survey into specific targeted surveys for PGR and UG students (**SA 1.3**).

Silver Actions to strengthen the self assessment process:

- 1.1 Appoint two UG representatives to DSAT (1F, 1M)
- 1.2 Redesign the Staff Survey to better monitor EDI culture and progress towards Silver Actions.
- 1.3 Split the Student Survey into targeted PGR and UG surveys to better evaluate their different experiences.

#### 4. A PICTURE OF THE DEPARTMENT

Recommended word count: Silver: 2000 words [2294 words]

##### 4.1 Student data

(i) Numbers of men and women on access or foundation courses: **not applicable**

(ii) Numbers of undergraduate students by gender [682 words]

(a) Part-Time Undergraduates

The department has 1-3 part-time students per year. They are elite athletes who combine high-level training with a chemistry degree. Since 2013 they have all been male.

## (b) Full-Time Undergraduates

In July 2017 the department had 472 students (41% female) split between a three-year Bachelor of Science (BSc) and a four-year Master of Chemistry (MChem) course. Most of our third-year students undertake placements. In 2017/18, 91 students went on industrial placement (45% F) and 19 students studied at an overseas university (47% F).

- Our department has grown from 386 students in 2011/12 (39% female) to 491 students (41% female; Figure 4) in 2016/17.
- Benchmark data (HESA, Figure 5) shows our female representation for the last four years has been slightly below the national average for chemistry (45%).
- 4% of our UG are international and 14% identify as Black, Asian or minority ethnic (BAME) (Figure 6).
- The numbers of applications, offers and acceptances (Table 4 and Figure 7) indicate that there are no gendered patterns in the progress of women and men. We are slightly below the sector average because fewer women apply for places in Bath. We will investigate reasons for this in **SA 2.1-2.2**.

Silver actions to improve gender balance on our Undergraduate degree programmes:

- 2.1 Collect information about the gender balance of students registering for talks on open days.
- 2.2 Increase the visibility of female staff/student role models in the UG prospectus, on the website and during virtual open days .

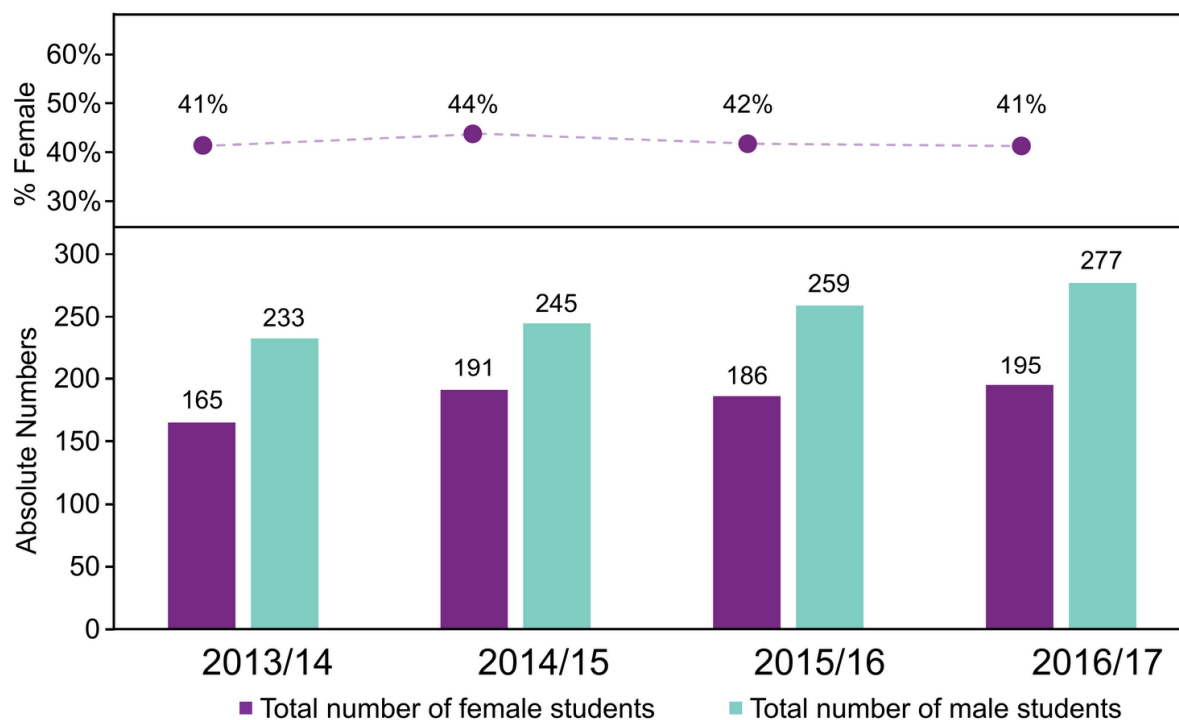


Figure 4. Numbers of students and percentage of students who are female studying chemistry at Bath between 2013 and 2017 (university end of year headcounts)

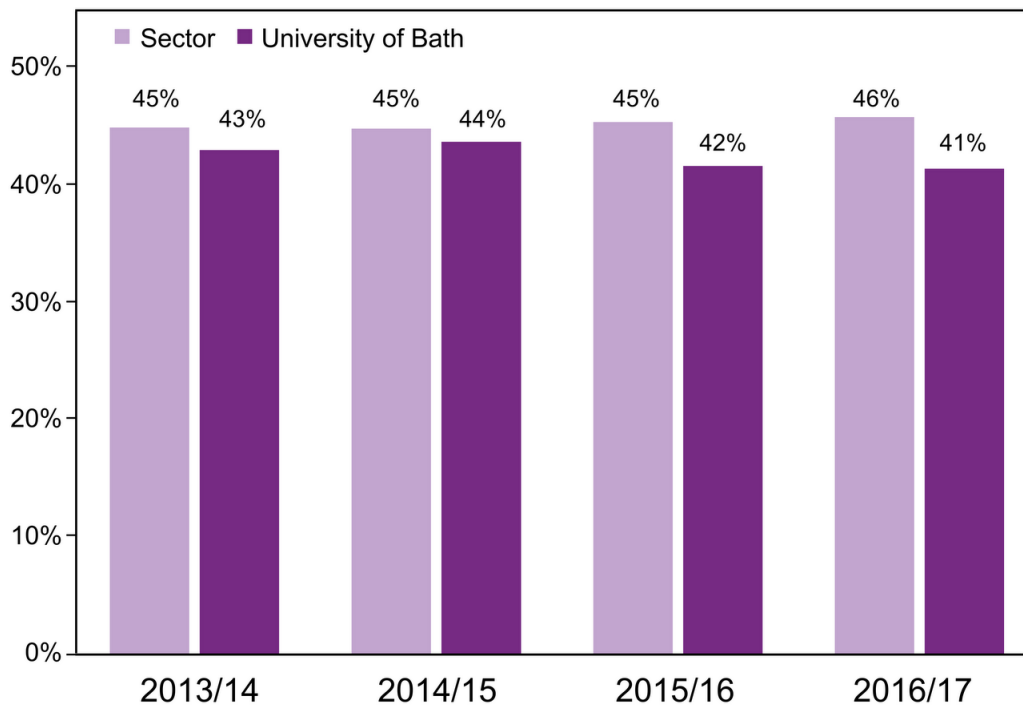


Figure 5. Percentage of female UG students studying chemistry at Bath compared to the sector average for chemistry (HESA data, end of year headcounts). HESA data differs from the University data above as it is rounded to the nearest 5 students.

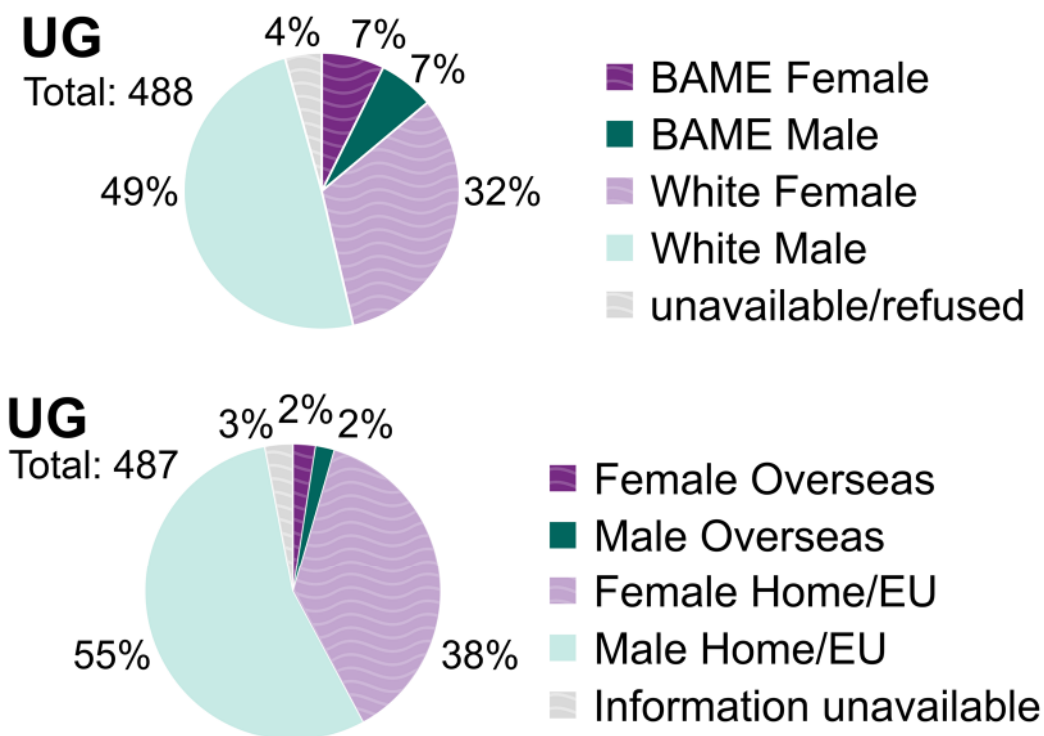


Figure 6. Undergraduate students split by ethnicity (above) and by geographical origin (below). University data for end of academic year 2017.

Table 4. The numbers of applications, offers and acceptances of undergraduate places by gender between 2013 and 2017 (UCAS data).

Year	Gender	Applications	Offers	Acceptances	Proportion of applicants receiving offers	Proportion of those receiving offers accepting them	Proportion of applicants accepting offers
2013/14	Female	344	305	49	89%	16%	14%
	Male	466	395	65	85%	16%	14%
	% Female	42%	44%	43%			
2014/15	Female	405	367	61	91%	17%	15%
	Male	498	438	81	88%	18%	16%
	% Female	45%	46%	43%			
2015/16	Female	524	458	57	87%	12%	11%
	Male	722	595	83	82%	14%	11%
	% Female	42%	43%	41%			
2016/17	Female	444	410	66	92%	16%	15%
	Male	596	544	81	91%	15%	14%
	% Female	43%	43%	45%			
Overall	Female	1717	1540	233	90%	15%	14%
	Male	2282	1972	310	86%	16%	14%
	% Female	43%	44%	43%			

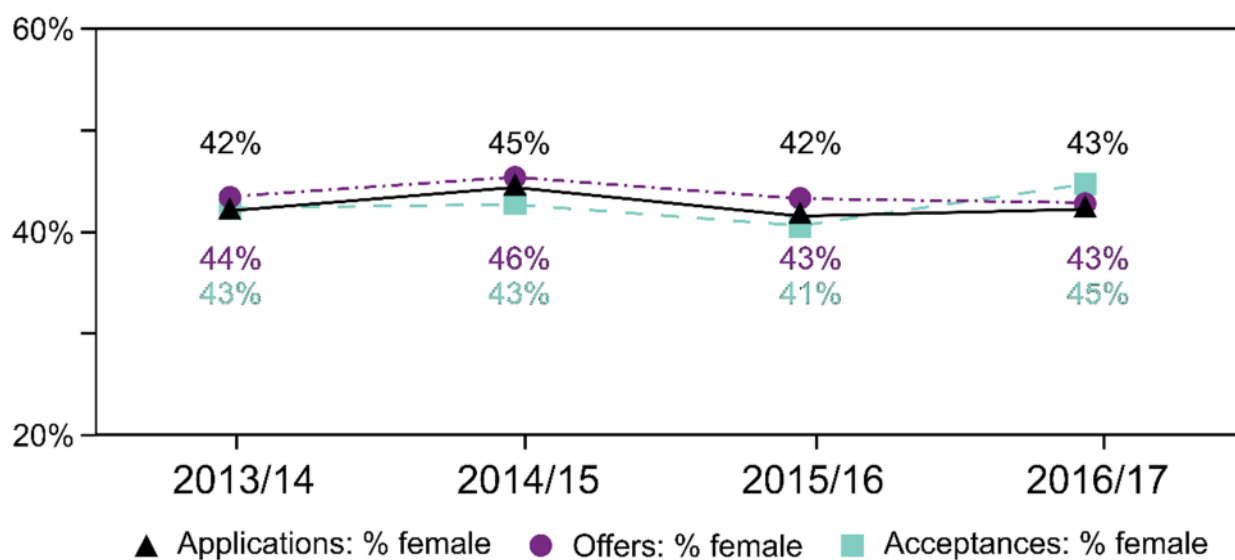


Figure 7. Percentage of female applications, offers and acceptances to undergraduate degrees in chemistry from 2013 to 2017 (UCAS data).

Insight can be gained by looking at the BSc and MChem courses individually (**DSAT bronze action**). The data (Table 5) show that female students are more likely than men to enrol for the BSc degree (average 46% female) than the MChem degree (average 40% female); the proportion of female students enrolling on our BSc programme exceeds the sector average. 2016/17 HESA data for chemistry shows that across all universities, BSc degrees were 45% female and MChem degrees were 44% female. In 2016/17 BSc chemistry programmes at Russell Group universities were 47% female and MChem programmes are 44% female. At Bath the difference between the BSc and MChem courses is greatest on initial registration; the flexibility in our programmes allows students to switch onto the MChem, so by graduation the gender ratios are more balanced (BSc 41% female, MChem 42% female). We will investigate further the reasons behind these patterns (**SA 2.3-2.4**).

**Bronze Actions** have focused on increasing the number of applications from women. In 2015 DSAT increased the number of outreach events and the number of female staff at these events. We also increased the number of visible female staff at open days. Finally, we redesigned the prospectus and the website so that there are equal numbers of case studies from male and female students. **Evidence from 2017/18 and 2018/19 suggests these measures are making an impact, in 2018/19 our first year is 50% female for the first time. In our 2017 survey, 86% students agree that ‘my department uses both men and women as visible role models’ (82% in 2015/16).**

Table 5. The total number of students and percentage female students who were enrolled on our 4 year MChem or 3 year BSc degree between 2013 and 2017.

Chemistry: UG STUDENTS		Total	BSc	MChem	Proportion on MChem
2013/14	Female	165	61	104	63%
	Male	233	86	147	63%
	% Female	41%	41%	41%	
2014/15	Female	191	72	119	62%
	Male	245	85	160	65%
	% Female	44%	46%	43%	
2015/16	Female	186	81	105	56%
	Male	259	80	179	69%
	% Female	42%	50%	37%	
2016/17	Female	195	77	118	61%
	Male	277	84	193	70%
	% Female	41%	48%	38%	

Degree attainment by gender is given in Figure 8. There is some natural variation in the number of first and 2:1 degrees awarded each year, but there is a clear trend showing that female students are attaining better degree classifications than the male students. HESA data for the sector<sup>1</sup> shows that across all chemistry departments female students obtain more 1<sup>st</sup> class (28% female; 26% male) and 2.1 degrees (43% female; 41% male). In Bath, averaged between 2013 and 2017, the difference is slightly larger for 1<sup>st</sup> class (32% female; 25% male) and 2.1 (56% female, 51% male).

<sup>1</sup> 2013-2015, 2018 RSC report on ‘diversity landscape of the chemical sciences’



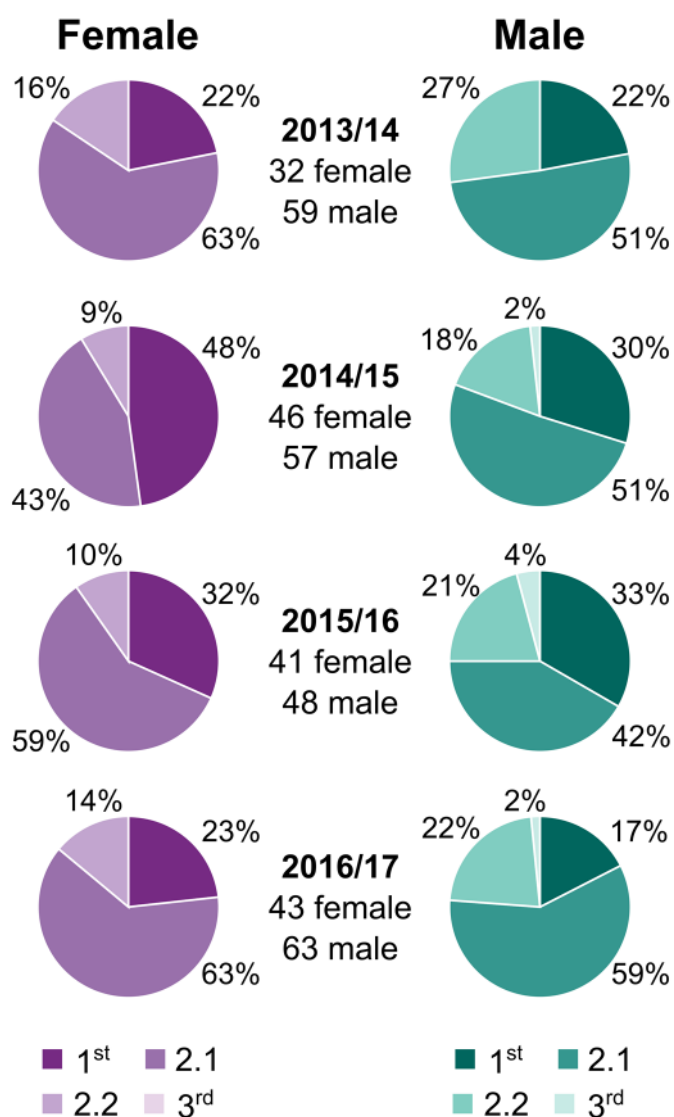


Figure 8. Degree attainment across all chemistry degree programmes as a function of gender from 2013 to 2017.

Table 6. Breakdown of degree attainment for male and female students on the 3 year BSc programme and the 4 year MChem programme. Data is averaged over the last 4 years.

Degree Classification	BSc Programme				MChem Programme			
	1st	2.1	2.2	3rd	1st	2.1	2.2	3rd
% of female students	14%	56%	30%	0%	42%	58%	0%	0%
# female students	9	37	19	0	43	54	0	0
% of male students	6%	46%	43%	5%	41%	52%	7%	0%
# male students	5	47	41	4	52	69	9	0

A **bronze action** was to break down attainment for the BSc and the MChem programme (Table 6). The analysis shows that female students slightly outperform male students on the MChem; but the largest difference is on the BSc programme. There are a number of possible reasons for the difference. It is possible that our female students have higher A-level grades and so might be expected to perform at a higher level throughout their degree. It is also clear that more female students who are eligible for the MChem are choosing the shorter BSc degree, for reasons we will investigate by introducing a new survey and focus group (**SA 2.3-2.4**). We will also investigate if gender bias is introduced by some aspect of teaching or assessment style, perhaps within specific units (**SA 2.5-2.8**).

Silver Actions to understand and address gender balance in undergraduate degree attainment:

- 2.3 Collect more detailed information using the undergraduate student culture survey, about why students have chosen BSc/MChem.
- 2.4 Investigate the reasons why more females chose a 3 year programme.
- 2.5 Compare A level entry grades of male and female students and analyse these for each programme.
- 2.6 Interrogate the split of marks across all courses and all years by gender to find if female/male students perform better on certain units or courses.
- 2.7 Analyse content and assessment criteria of any units with a marked (> 5%) difference in average outcome by gender. Hold focus group to discuss differences with SSLC.
- 2.8 Prepare an action plan and implement evidence based strategies that better support all students to achieve their potential.

(iii) Numbers of men and women on postgraduate taught degrees [131 words]

- (a) Part-Time Postgraduate Taught Degrees. n/a
- (b) Full-Time Postgraduate Taught Degrees

Until 2017/18 we ran a postgraduate taught (PGT) MSc degree in Chemistry for Drug Discovery. This degree has now been discontinued. The entry requirement was a 2:1 or above in chemistry or a related subject. The number of students on this course was low (7-13 per year) with a varying gender split (Figures 9&10); in 2016/17 more than half of the students identified as BAME and 44% were international. Applications, offers and acceptances are shown in Figure 11. The sector average for % female PGT students has stayed just above 50% for the last four years (HESA data, 2013/14 52% female; 2014/15 50% female; 2015/16 51% female; 2016/17 53% female), however due to the small numbers of students on our course, a statistically relevant comparison with the sector cannot be made.

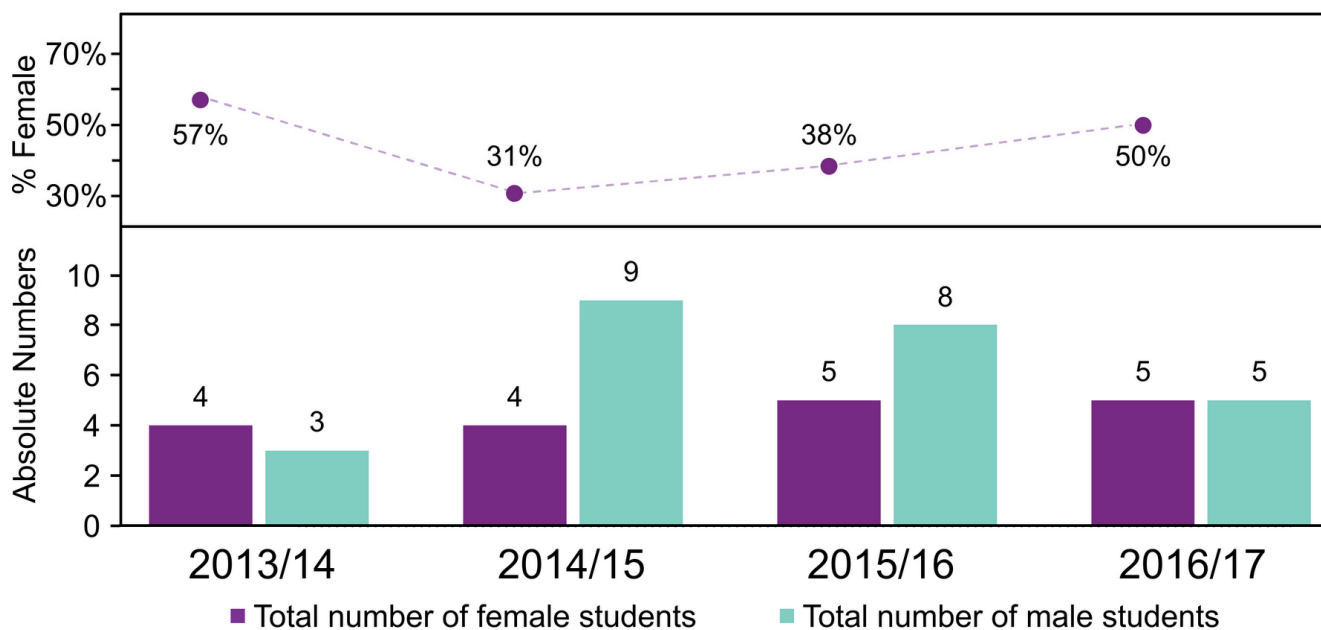


Figure 9. The number of male and female students and the % female students enrolled on our PGT course in Chemistry for Drug Discovery between 2013 and 2017.

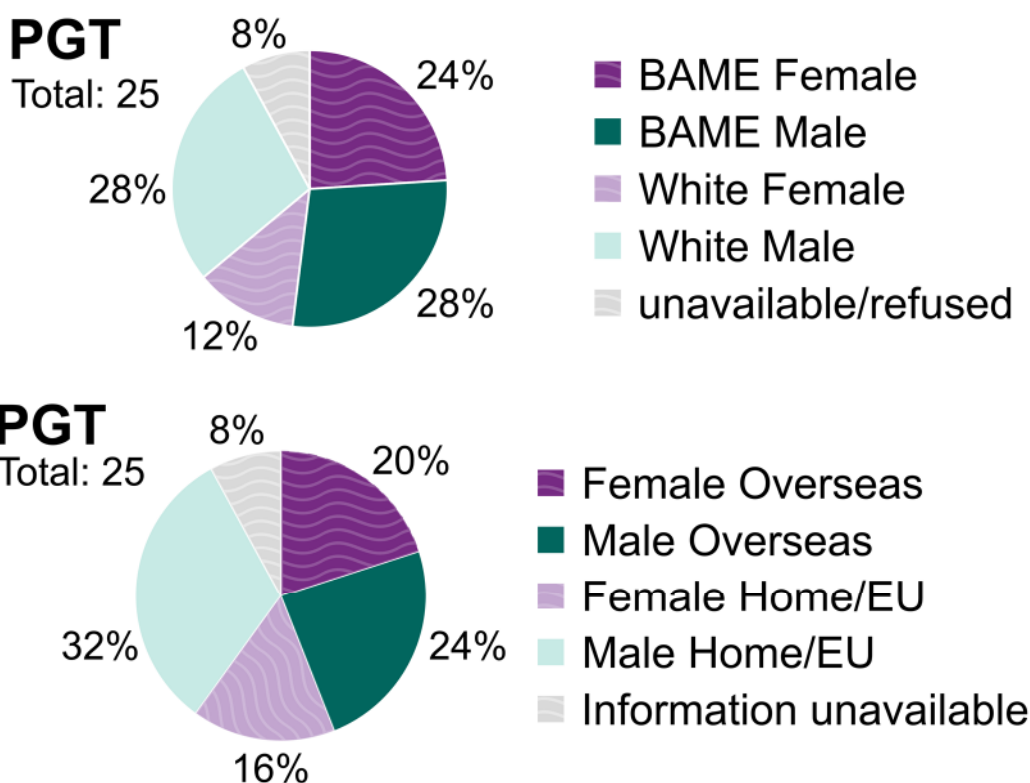


Figure 10. PGT students split by ethnicity (above) and by geographical origin (below). University data for end of academic year 2017.



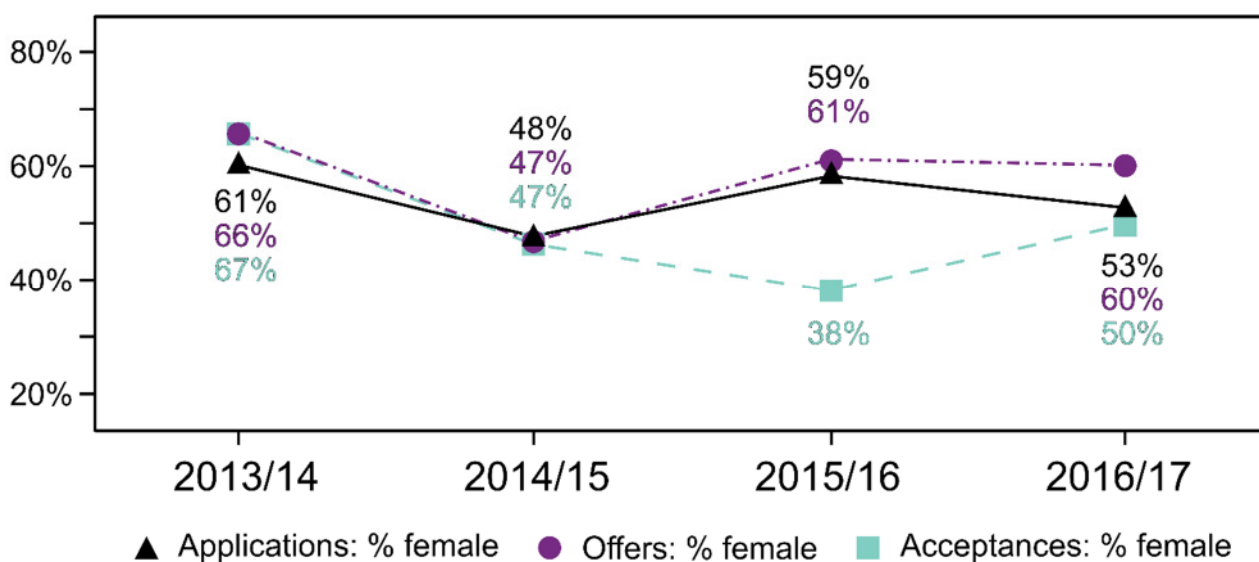


Figure 11. Percentage of applications, offers and acceptances by female students on one year PGT course in Chemistry for Drug Discovery.

Table 7. The numbers of applications, offers and acceptances of PGT places by gender between 2013 and 2017 (UCAS data).

Year	Gender	Applications	Offers	Acceptances	Proportion of applicants receiving offers	Proportion of those receiving offers accepting them	Proportion of applicants accepting offers
2013/14	Female	50	31	6	62%	19%	12%
	Male	32	16	3	50%	19%	9%
	% Female	61%	66%	67%			
2014/15	Female	43	24	7	56%	29%	16%
	Male	46	27	8	59%	30%	17%
	% Female	48%	47%	47%			
2015/16	Female	45	30	5	67%	17%	11%
	Male	31	19	8	61%	42%	26%
	% Female	59%	61%	38%			
2016/17	Female	47	29	6	62%	21%	13%
	Male	41	19	6	46%	32%	15%
	% Female	53%	60%	50%			
Overall	Female	185	114	24	62%	21%	13%
	Male	150	81	25	54%	31%	16%
	% Female	55%	58%	49%			

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

(a) Full- and part-time PhD Students. [381 words]

Chemistry is a strongly research active department with 134 PGR students in 2016/17 (40% female, see Figure 12). The students are split between the Centre for Doctoral Training (CDT) in Sustainable Chemical Technologies (82 students, 48% F) and students funded by the EU or University/Doctoral Training Studentships (24% F in 2016/17). In 3 of the last 4 years we have been above the sector average for the number of female PGRs (Figure 13). The split between home/overseas students and PGR ethnicity is given in Figure 14.

About 70% of applications come from men, however, women are more likely to be offered and accept a place (Figure 15 and Table 8). In 2016/17 54% of places were accepted by female students. Evidence from the CDT recruitment panel suggests that this is because female students only apply if they surpass the entry requirements. We will look at this difference in more detail (**SA3.2**).

Over the last four years we have had 5 part-time students (Table 9, 3 male, 2 female). Three combined work with a PGR degree (3 male) and two were part-time because of health issues (2 female).

Our **bronze action** was to review PGR recruitment and interview practices. All shortlisted applicants are now interviewed either in person or via Skype. Silver actions will focus on standardising recruitment adverts (**SA3.1**), interrogating the low number of applications from women (**SA3.2-3.3**) and understanding reasons for the lower % offers to males (**SA3.4**). In the Bronze period we have introduced an **active recruitment process** to our CDT. The CDT recruits 10-15 students per year in a single cohort. 65% of applicants are male (2016/17) and a pre-selection team actively creates a more gender balanced longlist. This active approach has helped the CDT achieve near gender balance (40% female in 2017); **8% above the sector average for chemistry (40% female)**. Silver actions will trial this approach more widely in PGR recruitment (**SA3.4**).

**Bronze Achievement: Active creation of balanced long lists helped achieve improved gender balance in our Centre for Doctoral Training (48% female).**

**Silver Actions to improve gender balance on PGR Programmes:**

- 3.1 Standardise the text used to advertise PhD positions to ensure it is not gender biased.
- 3.2 Run focus groups with final year students to investigate the drop in % females applying for PhD positions.
- 3.3 Trial active longlisting for PhD recruitment outside of the Centre for Doctoral Training in Sustainable Chemical Technology.
- 3.4 Investigate the reasons why the % female students being offered PhD students is above the % applying.

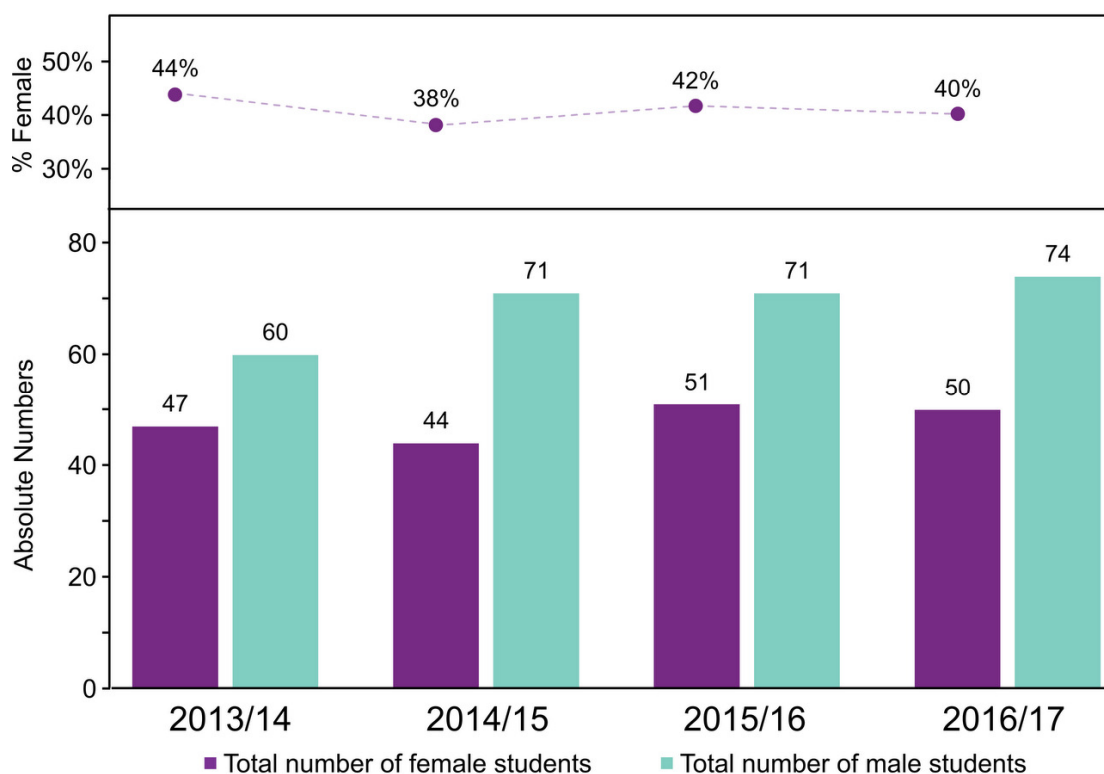


Figure 12. Number of male and female students and percentage of female students enrolled on PGR programmes in the Department of Chemistry between 2013 and 2017. (University data).

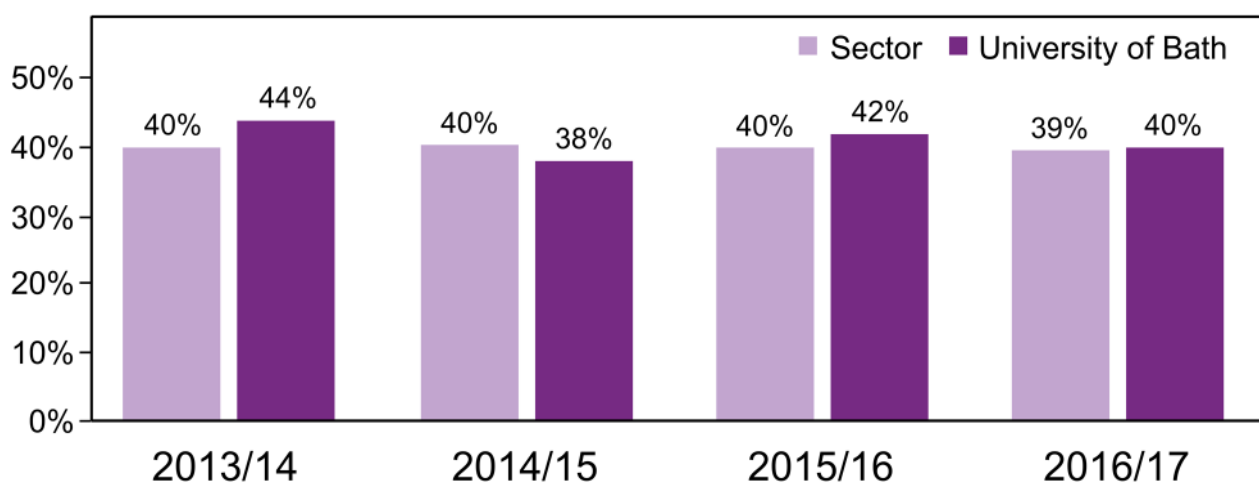


Figure 13. Percentage of female chemistry PGR students at Bath compared to the sector average (University end of year headcounts and HESA benchmark data).

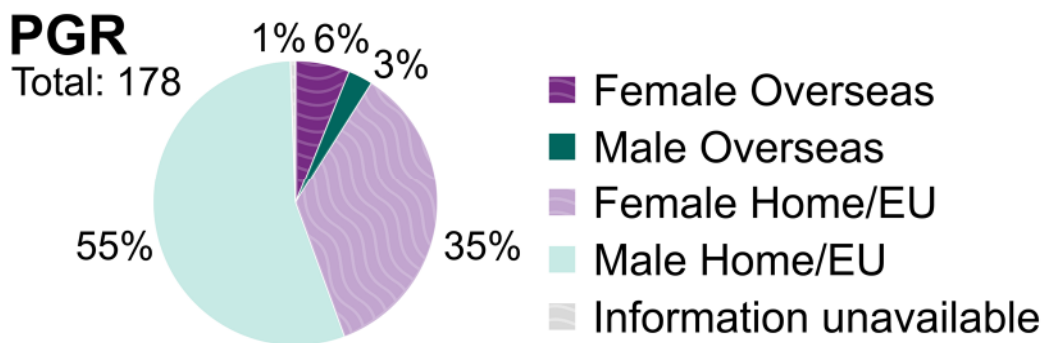
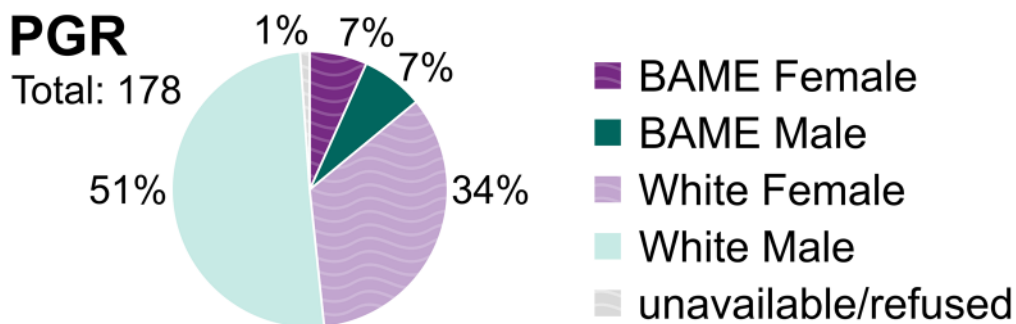


Figure 14. PGR students split by ethnicity (above) and by geographical origin (below). University data for end of academic year 2017.

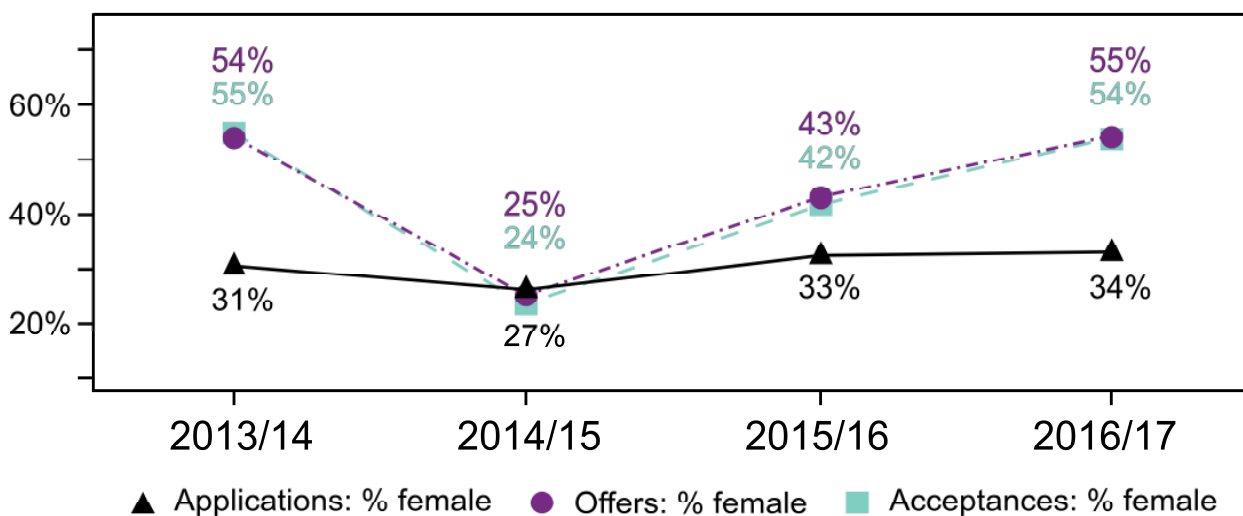


Figure 15. Applications, offers and acceptances by female students to PGR programmes in the Department of Chemistry from 2013-2017 (University data).

Table 8. Number of applications, offers and acceptances by gender from 2013 to 2017.

Year	Gender	Applications	Offers	Acceptances	Proportion of applicants receiving offers	Proportion of those receiving offers accepting them	Proportion of applicants accepting offers
2013/14	<b>Female</b>	61	25	21	41%	84%	34%
	<b>Male</b>	134	21	17	16%	81%	13%
	<b>% F</b>	31%	54%	55%			
2014/15	<b>Female</b>	42	14	11	33%	79%	26%
	<b>Male</b>	113	41	35	36%	85%	31%
	<b>% F</b>	27%	25%	24%			
2015/16	<b>Female</b>	81	23	19	28%	83%	23%
	<b>Male</b>	162	30	26	19%	87%	16%
	<b>% F</b>	33%	43%	42%			
2016/17	<b>Female</b>	86	30	26	35%	87%	30%
	<b>Male</b>	168	25	22	15%	88%	13%
	<b>% F</b>	34%	55%	54%			

Table 9. Numbers of part-time and full-time chemistry PGR students between 2013 and 2017 (University headcount data)

PGR STUDENTS		Total	Full time	Part time
2013/14	<b>Female</b>	<b>47</b>	47	0
	<b>Male</b>	<b>60</b>	59	1
	<b>% Female</b>	<b>44%</b>	44%	0%
2014/15	<b>Female</b>	<b>44</b>	43	1
	<b>Male</b>	<b>71</b>	69	2
	<b>% Female</b>	<b>38%</b>	38%	33%
2015/16	<b>Female</b>	<b>51</b>	50	1
	<b>Male</b>	<b>71</b>	71	0
	<b>% Female</b>	<b>42%</b>	41%	100%
2016/17	<b>Female</b>	<b>50</b>	50	0
	<b>Male</b>	<b>74</b>	74	0
	<b>% Female</b>	<b>40%</b>	40%	0%



PGR degree completion rates are shown in Tables 10 and 11. Four full-time PGR students (5 male and 1 female) and 2 full time integrated PGR students did not submit within the standard 4-year registration period. Five of these students (4 male, 1 female) obtained an extension and submitted their thesis. One male student decided not to complete his thesis and left the course.

*Table 10. Degree completion figures for male and female PGR students in the Department of Chemistry studying on the standard PGR programme. Dates are for cohorts entering the programme – e.g. students starting in 2010/11 with completion rates reported in 2014/15.*

Year of entry	Gender/ % Female	Chemistry: PhD submission rates (*)					
		Submitted within 4 years	Submitted after 4 years	Not submitted (in time)	Not submitted (out of time)	Total	% submitted
2010/11	Female	12	1	0	0	13	100%
	Male	8	2	0	1	11	91%
	% F	60%	33%	-	0%	54%	-
2011/12	Female	9	1	0	0	10	100%
	Male	15	0	0	0	15	100%
	% F	38%	100%	-	-	40%	-
2012/13	Female	6	0	0	1	7	86%
	Male	12	0	0	2	14	86%
	% F	33%	-	-	33%	33%	-

*Table 11. Degree completion rates for male and female PGR students on the integrated PhD programme (CDT in Sustainable Chemical Technologies). Dates are for cohorts entering the programme – e.g. students starting in 2010/11 with completion rates reported in 2014/15.*

Year of entry	Gender/ % Female	Chemistry: IPhD submission rates (*)					
		Submitted within 5 years	Submitted after 5 years	Not submitted (in time)	Not submitted (out of time)	Total	% submitted
2010/11	Female	2	0	0	0	2	100%
	Male	2	1	0	0	3	100%
	% F	50%	0%	-	-	40%	-
2011/12	Female	2	0	0	0	2	100%
	Male	6	0	0	0	6	100%
	% F	25%	-	-	-	25%	-
2012/13	Female	3	0	1	0	4	75%
	Male	4	0	0	2	6	67%
	% F	43%	-	100%	0%	40%	-

(v) Progression pipeline between undergraduate and postgraduate student levels [192 words]

Since 2013 our UGs have been 41% female (4 year average) and our PGR students have been 40% female; we do not observe a large drop in % female at this transition (Figure 16). As a **bronze action** we reviewed our annual internal PGR recruitment drive. Since 2015 **equal numbers of male and female PGR students present at the “Why study for a PhD?” talk**, which offers an open Q&A session and research presentations. We also offer a one-to-one follow-up discussion about PGR opportunities with a male or female student. Close to 50% of our PGR students are recruited from Bath each year: **internal recruitment has been above the sector average for female PGR students since 2015/16** (Table 12).

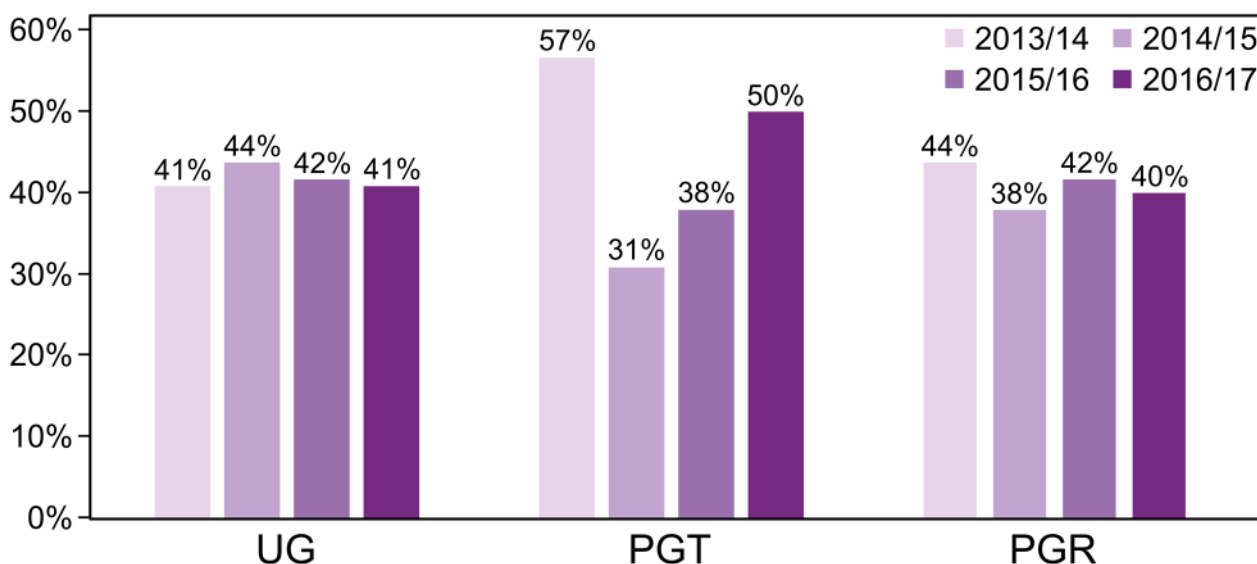


Figure 16. Percentage of UG, PGT and PGR students who were female between 2013 and 2017.

Table 12. Number of PGR students on our programme who studied for their UG degree in Bath.

Entry year	Number of UG students from Chemistry becoming PGR at Bath			
	Total	Male	Female	% Female
2014/15	19	14	5	26%
2015/16	10	6	4	40%
2016/17	12	6	6	50%
2017/18	9	5	4	44%

UG destination data is shown in Tables 13 and 14. 57% female and 59% male respondents who gained an MChem stayed in STEM (average 2014-2017). In contrast 26% female and 42% male respondents who gained a BSc stayed in STEM positions. It is likely that this links to high performing female students who actively choose the shorter degree as a springboard to other fields (section 4.1). This difference will be interrogated in **SA2.3-2.7**.

Table 13. Destinations of MChem students by gender. Data collected by survey six months after graduation.

Destination	Female	Male	% Female respondents in STEM jobs	% Male respondents in STEM jobs
2014/15				
STEM	16	20	57%	67%
Non-STEM	8	7		
Unemployed/other	4	3		
2015/16				
STEM	12	15	57%	54%
Non-STEM	7	7		
Unemployed/other	2	6		
2016/17				
STEM	10	16	56%	55%
Non-STEM	8	10		
Unemployed/other	0	3		

Table 14. Destination of BSc students by gender. Data collected by survey six months after graduation.

Destination	Female	Male	% Female respondents in STEM jobs	% Male respondents in STEM jobs
2014/15				
STEM	5	5	26%	63%
Non-STEM	14	3		
Unemployed/other	0	0		
2015/16				
STEM	2	4	16%	40%
Non-STEM	9	3		
Unemployed/other	1	3		
2016/17				
STEM	4	6	26%	33%
Non-STEM	9	8		
Unemployed/other	2	4		

#### 4.2. ACADEMIC AND RESEARCH STAFF DATA

##### (i) Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only [510 words]

The grade structure for academic staff in the department is shown in Figure 17. The Department of Chemistry has 98 academic, teaching and research staff (38% female); we are above the sector average of 33% female (Figure 18) for Chemistry. There is no obvious gender bias in grade distribution (Figure 19). 11% of staff identify as BAME, interestingly we have greater diversity amongst female staff with 21% of women identifying as BAME (Figure 20).

<b>Professorial/Other</b>	<b>Professor, Dean, Pro-Vice Chancellor etc</b>	*Special awards have not been included and bring salaries above these maxima
Grade 9 £50,132 - £58,089*	<b>Senior Lecturer, Senior Teaching Fellow, Senior Research Fellow, Reader</b>	
Grade 8 £40,792 -£48,677*	<b>Teaching Fellow, Research Fellow, Lecturer</b>	
Grade 7 £33,199 - £39,609*		<b>Post Doctoral Research Assistant, Research Officer</b>
Grade 6 £26,243 - £32,236*		

Figure 17. Scheme showing the grade structure for teaching and research staff at the University of Bath. Salaries are correct for 5/11/2018.

**Bronze actions** focused on addressing the low numbers of female staff above lecturer level. In 2013/14, 16% staff at lecturer and above were female. We worked to improve internal promotion rates by making sure the promotion process was highlighted at appraisals and asking the HoD to speak individually to staff who were eligible for promotion and encourage them to apply. To increase the number of external female job applicants, we identified outstanding male and female candidates and invited applications for open positions. The **impact** of these actions has been profound. Recruitment of a female professor and the movement of two female research fellows to permanent lectureship contracts means that **we have increased the number of female staff at lecturer and above from 16% in 2013/14 to 29% in 2016/17. We have moved ahead of the sector average for total % female staff for the first time in our history.** In addition, **the number of female professors has increased from none in 2013/14 to five in 2016/17 (21%), which is above the sector average for chemistry (12%, HESA).** Four of these professors were promoted internally and one was recruited externally.

Our bronze application highlighted a low proportion of female PDRAs. In 2014 **bronze actions** ensured that all job advertisements included an EDI statement and were checked by Human Resources (HR) to make sure that the form of words used was not discouraging women from applying. Applicant information packs were improved to contain information about our on-site nursery, flexible working policy and dignity and respect policy (see 5.1). We introduced a policy of having at least one woman on all interview panels and mandatory training for everyone sitting on an interview panel. The **impact** of these changes has been an **increase in the number of female PDRAs from 34% in 2013/14 to 43% in 2016/17**(see Figure 21).

The pipeline from PGR students to PDRAs is strong and there was an **increase in %female from 41% to 43%** at this transition point in 2016/17. The largest drop is between PDRA and lecturer level. Analysis of applications to new lecturer positions (22% female in 2016/17) suggest that fewer female candidates apply compared to the number applying for PDRA positions (36% female in 2016/17). Although fewer women apply, their applications tend to be high quality leading to more balanced shortlists (50% female in 2016/17) (see section 5.1(i)).

Between 2013 and 2017 no technical staff transitioned to academic roles, but technical staff are involved in UG lab teaching and the supervision of UG research projects. One current member of staff transitioned from a technical to a research and teaching role in 1996.

**Bronze achievements:**

- In 2016/17 the department is above the sector average for total % female staff for the first time.
- A 9% increase in the number of female PDRAs since 2015.
- The number of female professors increased from none in 2014 to five (21%) in 2017.

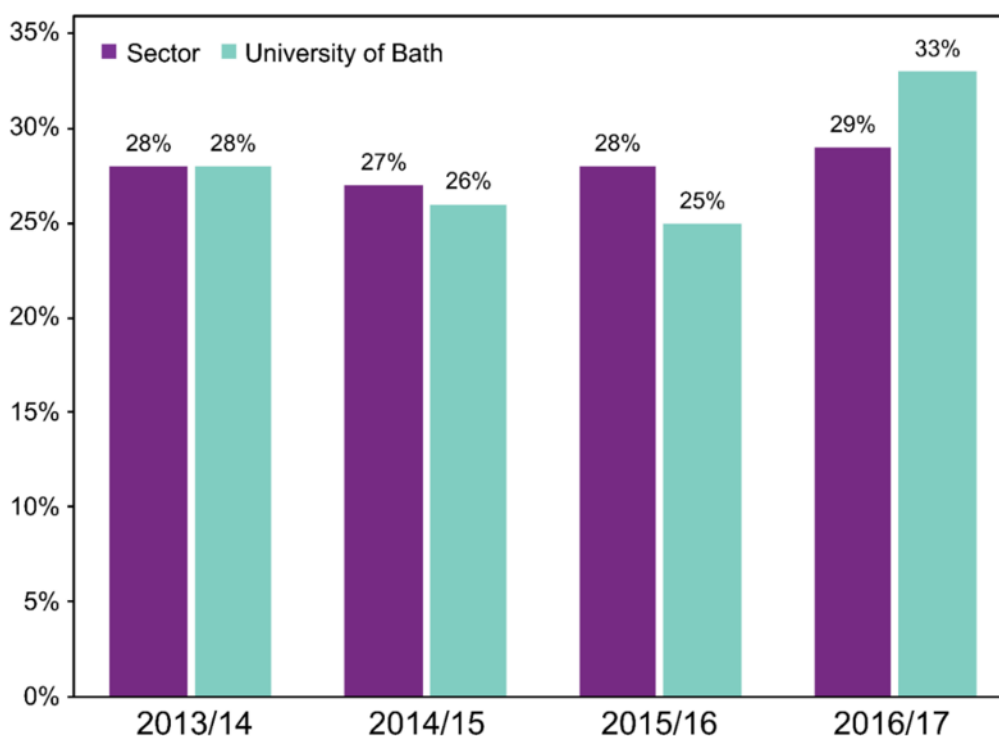


Figure 18. Percentage of female staff in the Department of Chemistry compared to the sector average from 2013 to 2017 (HESA data).

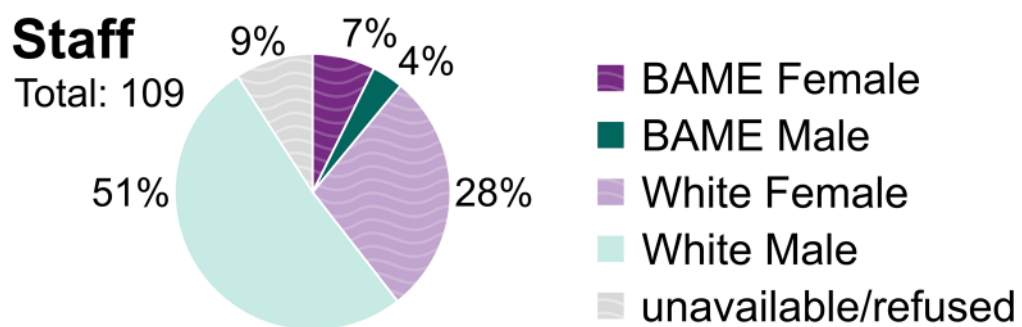


Figure 20. Staff in the Department of Chemistry split by ethnicity and gender. University data collected for 2016/17.

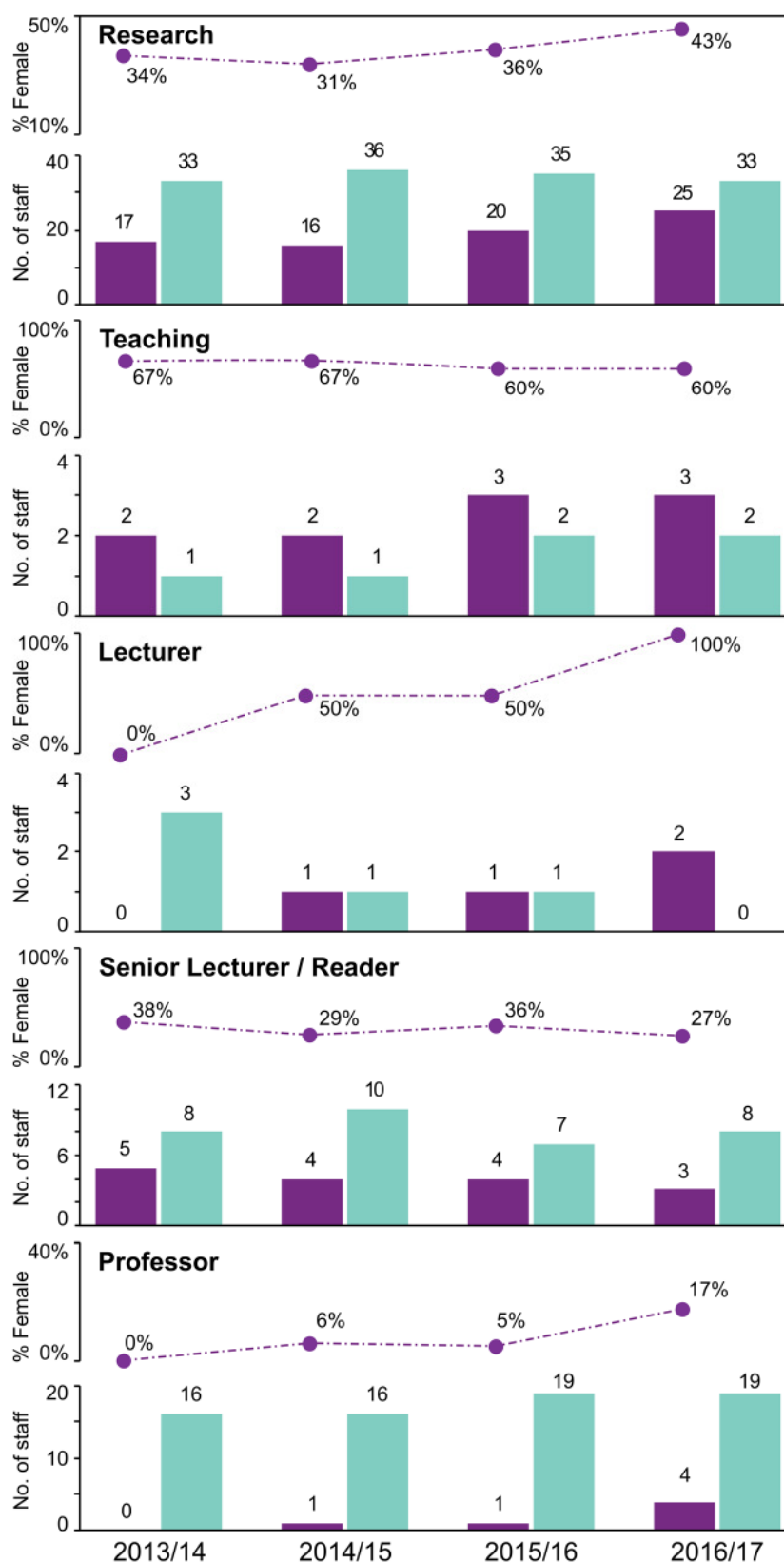


Figure 21. Number of staff and percentage female staff in different academic, research and teaching positions within the Department of Chemistry from 2013/14 to 2017. The fifth female professor was promoted in February 2018 and is not included in this data.

(ii) Academic and research staff by grade on fixed-term, open-ended/permanent and zero-hour contracts by gender [213 words]

PGR students are employed on casual contracts as demonstrators and tutors, applications for roles are made annually and successful candidates are guaranteed a fixed number of hours/year.

Table 15 shows staff by role and contract type. The majority of fixed-term staff are PDRAs. As a function of job role, slightly more men than women are on fixed-term contracts. In Chemistry all research-only staff are grade 6 or 7; our teaching only staff span grades 7 to 9. Teaching and research staff span grade 7- professorial (see Figure 19 for grade information).

Fixed-term staff transition to open-ended contracts after four years. HR also runs a redeployment scheme, which means that staff nearing the end of their contract are notified of vacancies around the university. If an internal candidate applies, their application is considered first. If the candidate is deemed employable, they must be offered the role. The department implements the policy by carrying out interviews with fixed-term staff 6 months before the end of their contract. The interviews inform staff about the redeployment scheme, helps to identify new funding streams and supports staff to identify career goals.

Table 15. The number of staff and percentage female staff on open ended and fixed contracts by job role in the Department of Chemistry from 2013 to 2017 (University data).

Year	Gender	Research Only/Other			Teaching Only			Teaching and Research		
		Fixed Term	Open Ended	% Fixed Term	Fixed Term	Open Ended	% Fixed Term	Fixed Term	Open Ended	% Fixed Term
2013/14	Female	17	2	89%	0	2	0%	0	5	0
	Male	30	3	90%	0	1	0%	0	27	0
2014/15	Female	13	3	81%	1	2	0%	0	6	0
	Male	34	3	92%	0	1	0%	1	26	4%
2015/16	Female	16	4	80%	1	2	33%	0	6	0%
	Male	32	4	89%	1	1	50%	1	26	4%
2016/17	Female	24	2	92%	1	2	33%	0	8	0%
	Male	29	4	88%	1	1	50%	3	24	11%
Total	Female	70	11	86%	3	8	28%	0	25	0%
	Male	125	14	90%	2	4	33%	5	103	5%



(iii) Academic leavers by grade and gender and full/part-time status [184 words]

Leaving rates are presented in Figure 22 and Tables 16-17. HR invite all leavers for exit interviews by e-mail, if the leaver wishes the content of the exit interview is shared with the Department. Turnover of staff on open contracts is extremely low. Since 2013 one male professor moved to a role at another university. Two female academic related staff on open contracts moved to new roles.

The leaving rate for staff on fixed-term contracts is higher. One male teaching fellow was redeployed and a second left when his contract ended. The remainder of fixed-term leavers were PDRAs (research only); averaged from 2013-2017, the leaving rate for male PDRA was 33% and for female PDRA was 31%, suggesting no strong gender bias in leaving rates.

In 2017 the HoD and Chair of DSAT held a focus group with PDRAs to discuss short-term contracts and department support for career development. The issues highlighted focused on enhancing training and teaching experience to provide PDRAs with stronger track records to help with the transition to industrial or open-ended academic positions (see section 5.3 (iii) for Silver Actions).

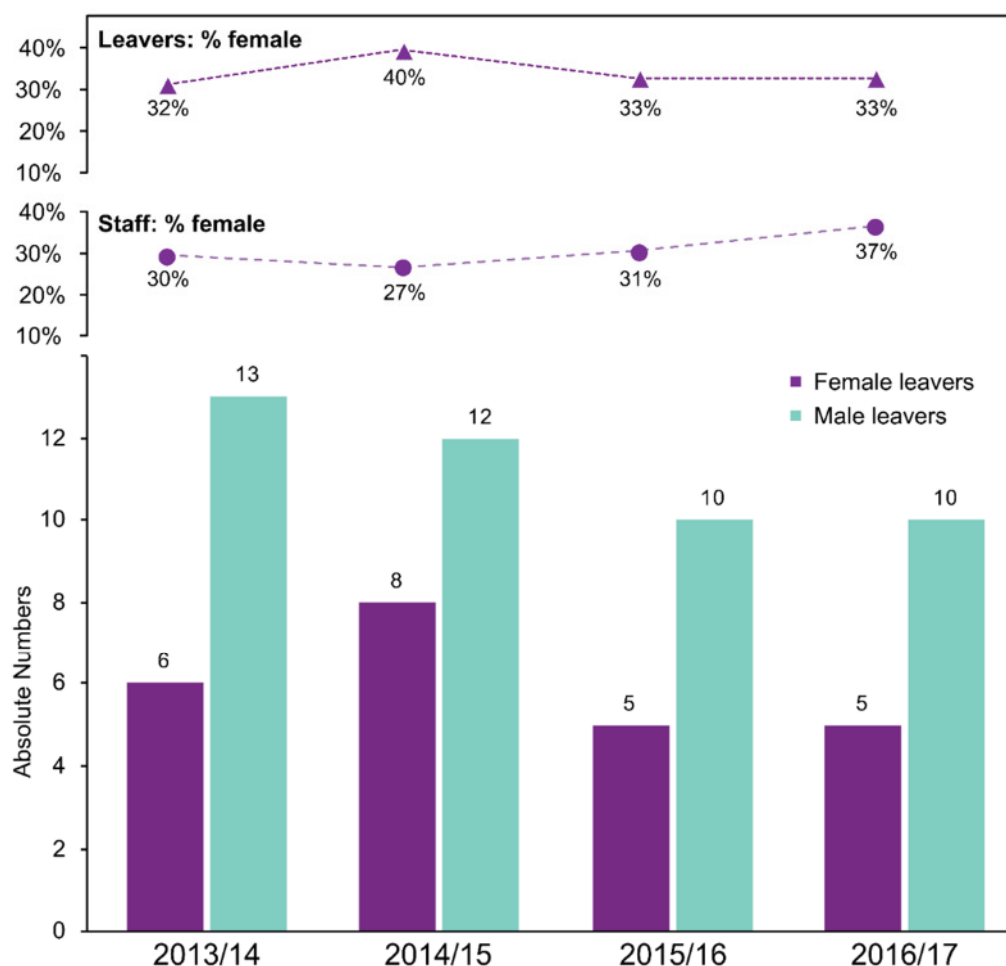


Figure 22. Numbers of staff within the Department of Chemistry leaving between 2013 and 2017, broken down by gender.

Table 16. Numbers of staff leaving and leaving rates by gender as a function of job family.

Career Path		2013/14		2014/15		2015/16		2016/17	
		F	M	F	M	F	M	F	M
Teaching and Research	Staff	5	27	5	27	6	27	9	27
	Leavers	0	2	0	1	0	0	0	0
	Leaving Rate	0%	7%	0%	4%	0%	0%	0%	0%
Research only	Staff	17	33	16	36	20	35	25	33
	Leavers	6	11	6	11	4	10	5	10
	Leaving Rate	35%	33%	38%	31%	20%	29%	20%	33%
Teaching only	Staff	2	1	2	1	3	2	3	2
	Leavers	0	1	0	1	0	0	0	0
	Leaving Rate	0%	100%	0%	100%	0%	0%	0%	0%

Table 17. Number of staff leaving and leaving rate 2013 to 2017, broken down by gender and type of contract.

Contract type		2013/14		2014/15		2015/16		2016/17	
		F	M	F	M	F	M	F	M
Fixed Term	Staff	17	30	13	35	17	34	25	33
	Leavers	4	12	8	12	5	10	5	10
	Leaving Rate	24%	40%	62%	34%	29%	29%	20%	30%
Open Ended	Staff	9	31	11	30	12	31	12	29
	Leavers	2	1	0	0	0	0	0	0
	Leaving Rate	22%	3%	0%	0%	0%	0%	0%	0%

## 5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

Recommended word count: 6500 [6558 words]

### 5.1 Key career transition points: academic staff

#### (i) Recruitment [276 words]

Bronze Achievements BA3.1: The number of women appointed to teaching and research positions has increased from 32% F in 2014/15 to 55% F in 2016/17

Only 25% of applications for departmental research and teaching roles come from women but female candidates are more likely to be shortlisted for interview (Tables 18-19). A similar trend is seen in Athena SWAN submissions from other chemistry departments. Cambridge, Nottingham and Birmingham all showed >10% increase in the number of women shortlisted compared to the number applying. DSAT analysis of applications suggests that this is because women tend to target applications to positions they are most highly qualified for.

*The recruitment process for the Prize Fellowship was transparent and efficient. There were three stages: proposal submission, Skype interview, and, finally, a multidisciplinary panel interview with specialists across the Faculty. There was an immediate answer to all my queries on the proposal submission process, and all the requirements and criteria were clear and fair.*

**Bronze actions** centred on (i) making sure all positions (including research only) are recruited by panel (ii) ensuring interview panels are mixed gender; (iii) rewording job adverts to welcome applications from under-represented groups (iv) ensuring that 'gendered' words are not used in applications (v) improving applicant information packs, and (vi) inviting applications from equal numbers of highly qualified men and women. It is compulsory for members of interview panels to undergo training in selection and recruitment (including aspects of unconscious bias).

**While the number of women applying to research and teaching posts has remained fairly constant since 2010, there has been a 13% increase in the number of women appointed since these changes were introduced** (Table 20). **SA 4.1- 4.2** will focus on attracting more applications from women. **SA 4.3-4.6** will tackle structural and unconscious bias.

Silver Actions to Strengthen Good Practice in Recruitment:

- 4.1 Add both male and female contact names to adverts for department vacancies.
- 4.2 Introduce a seminar series for external PDRA's to introduce talented researchers (50% female) to the department. We will then be able to invite applications from them when positions are available.
- 4.3 Strengthen awareness of unconscious bias by asking interview panel members to watch a short video on unconscious bias from the Royal Society before interviews take place.
- 4.4 Trial active longlisting (a gender balanced long list) for new academic and research positions where the number of applicants is large enough ( > 30).
- 4.5 Require panels to justify single gender shortlists. Reports to be collected by department coordinator and passed to the Department Executive.
- 4.6 Create and circulate a best practice in recruitment document to all line managers.

Table 18. Applicants, shortlisted candidates and new starters for research only, teaching only, teaching and research and other positions within the Department of Chemistry advertised between 2013 and 2017.

Year	Role	Gender/ % Female	Applicants	Shortlisted	New Starter	Shortlisted/ Applicants	New Starter/ Shortlisted	New Starters/ Applicants
2013/ 14	Research	Female	99	16	7	16%	44%	7%
		Male	357	33	16	9%	45%	4%
		% Female	<b>22%</b>	<b>33%</b>	<b>32%</b>			
	Teaching	Female	0	0	0	0%-	0%	0%-
		Male	3	1	1	33%	100%	33%
		% Female	<b>0%</b>	<b>0%</b>	<b>100%</b>			
	All	Female	99	16	8	16%	50%	8%
		Male	360	34	15	9%	44%	4%
		% Female	<b>22%</b>	<b>32%</b>	<b>35%</b>			
2014/ 15	Research	Female	113	13	6	12%	46%	5%
		Male	390	39	12	10%	31%	3%
		% Female	<b>22%</b>	<b>25%</b>	<b>33%</b>			
	Teaching	Female	5	1	0	20%	0%	0%
		Male	24	9	0	38%	0%	0%
		% Female	<b>17%</b>	<b>10%</b>	<b>0%</b>			
	Other	Female	8	2	0	25%	0%	0%
		Male	4	2	1	50%	50%	25%
		% Female	<b>67%</b>	<b>50%</b>	<b>0%</b>			
All	Female	126	16	6	13%	38%	5%	
	Male	418	50	13	12%	26%	3%	
	% Female	<b>23%</b>	<b>24%</b>	<b>32%</b>				
2015/ 16	Research	Female	101	17	8	17%	47%	8%
		Male	364	38	13	10%	34%	4%
		% Female	<b>22%</b>	<b>31%</b>	<b>38%</b>			
	Teaching	Female	4	1	1	25%	100%	25%
		Male	8	3	1	38%	33%	13%
		% Female	<b>33%</b>	<b>25%</b>	<b>67%</b>			
	All	Female	105	18	9	17%	56%	10%
		Male	372	41	14	11%	34%	4%
		% Female	<b>22%</b>	<b>31%</b>	<b>42%</b>			
2016/ 17	Research	Female	73	13	13	17%	100%	17%
		Male	206	20	11	10%	55%	53%
		% Female	<b>26%</b>	<b>39%</b>	<b>56%</b>			
	Teaching	Female	1	1	1	100%	100%	100%
		Male	0	0	0	0%	0%	0%
		% Female	<b>100%</b>	<b>100%</b>	<b>100%</b>			
	Lecturer	Female	14	3	0	21%	0%	0%
		Male	50	3	1	6%	33%	2%
		% Female	<b>22%</b>	<b>50%</b>	<b>0%</b>			
	Professor	Female	5	2	1	40%	50%	20%
		Male	30	3	0	10%	0%	0%
		% Female	<b>14%</b>	<b>40%</b>	<b>100%</b>			
	All	Female	92	18	16	20%	89%	17%
		Male	286	26	12	9%	46%	4%15%
		% Female	<b>24%</b>	<b>41%</b>	<b>56%</b>			

Table 19. Applicants, shortlisted candidates and new-starters in research only, teaching only, research and teaching and other roles in the Department of Chemistry between 2013 and 2017.

Overall 2013- 2017	Role	Gender/ % Female	Applicants	Shortlisted	New Starter	Shortlisted/ Applicants	New Starter/ Shortlisted	New Starters/ Applicants
	Research	Female	386	59	34	15%	58%	9%
		Male	1317	130	55	10%	42%	4%
		<b>% Female</b>	<b>23%</b>	<b>31%</b>	<b>41%</b>			
	Teaching	Female	10	3	3	30%	100%	30%
		Male	35	13	2	37%	15%	6%
		<b>% Female</b>	<b>20%</b>		<b>75%</b>			
	Lecturer	Female	14	3	0	21%	0%	0%
		Male	50	3	1	6%	33%	2%
		<b>% Female</b>	<b>22%</b>	<b>50%</b>	<b>0%</b>			
Professor	Female	5	2	1	40%	50%	20%	
	Male	30	3	0	10%	0%	0%	
	<b>% Female</b>	<b>14%</b>	<b>40%</b>	<b>100%</b>				
Other	Female	8	2	0	25%	0%	0%	
	Male	4	2	1	50%	50%	25%	
	<b>% Female</b>	<b>67%</b>	<b>50%</b>	<b>0%</b>				
All	Female	422	69	38	16%	55%	9%	
	Male	1436	151	59	11%	39%	4%	
	<b>% Female</b>	<b>23%</b>	<b>31%</b>	<b>39%</b>				

Table 20. The percentage of females appointed to research only, teaching only, research and teaching in the Department of Chemistry between 2010 and 2017, showing an increase as a result of bronze actions in 2014/15.

Year	% female new starters (all teaching and research roles)	% female new starters
2010/2011	26% (4 F, 15 M)	31% Female  (pre-Bronze application)
2011/2012	54% (6 F, 5 M)	
2012/2013	26% (8 F, 22 M)	
2013/2014	35% (8 F, 15 M)	
2014/2015	32% (6 F, 13 M)	44% Female  (Under Athena SWAN Bronze Action Plan)
2015/2016	42% (10 F, 14 M)	
2016/2017	55% (16 F, 13 M)	

(ii) Induction [362 words]

**Bronze Achievements:**

- Since 2016, 100% of new academic starters have a formal induction to the department.
- In our first survey on induction in 2018, 86% of recent starters agreed the process was satisfactory to excellent (100% male, 85% female).

Before 2015, induction for staff was inconsistent and depended on individual line managers. **Bronze actions** were to rewrite the induction documents and introduce a rigorous induction checklist (IC).

New staff at research fellow level or above now contact the departmental co-ordinators on arrival. They are introduced to the HoD and key colleagues and given a tour of the department. They are invited to departmental coffee mornings and the well-attended bimonthly 'Introduction to the University of Bath'. The IC signposts key policies and information sources such as the departmental wiki page. The wiki provides contextual information about education and research in the department, as well as meeting schedules, Athena SWAN information, flexible working and childcare details. All new staff below professorial level are assigned a mentor to assist with induction. **100% of research and teaching staff appointed since 2016 have taken this new induction.**

Early career staff do the *Bath Course in Enhancing Academic Practice* (100% uptake since 2014) which signposts new starters to training regular courses. Fellows are introduced to university resources about promotion and grant applications through the 'Prize Fellow Development Scheme' (100% uptake departmental Prize Fellows since 2014). New PDRAs' first contact point is with their line manager and they receive the IC. Since 2017 there has also been a peer induction by the PDRA Network to signpost resources and facilitate networking.

The effectiveness of induction is assessed by a survey, carried out for the first time in 2018. 85% of staff had a meeting with the HoD, the remainder with a senior professor. 71% chose to go on a tour of the department/campus. 100% had peers and senior colleagues introducing themselves. 86% of staff rated their induction experience as satisfactory to excellent. However, the free comments highlighted that PDRAs were less satisfied with their induction and that not all line managers were using the IC.

We will extend the full induction programme with the department co-ordinator to all PDRAs (**SA5.1**). The new induction survey will be incorporated into the revamped staff culture survey to track satisfaction rates with induction annually (**SA5.2**). We will introduce line manager sign-off of the IC, with completed lists returned to the department co-ordinators (**SA5.3**).

**Silver Actions to further improve and standardise the induction process:**

- 5.1 Expand the formal departmental induction process to cover all PDRAs.
- 5.2 Combine the induction survey and the staff/PGR culture surveys.
- 5.3 Line manager sign off on completed induction checklists, completed lists collected and monitored by department co ordinators.

(iii) Promotion [432 words]

Bronze Achievements

- Since 2012/13 8 staff have been promoted to professor (**50% female**).
- Since 2012/13 7 staff have been promoted to Senior Lecturer/Reader (**43% female**).
- A female grade 8 Teaching Fellow was promoted to become the first Senior Teaching Fellow in the department (grade 9).

There are two promotion rounds every year, with deadlines in September and February. All chemistry staff are made aware of the criteria and deadlines by e-mail circulation of Academic Career Progression documentation twice per year. Promotion cases are built on excellence in research, teaching and/or administration with all three areas equally valued. Allowances are made for a reduction in research output due to parental leave. Decisions on promotion cases below professor are made at University level by the Academic Staff Committee (ASC).

Promotion criteria are discussed during all annual appraisals. The HoD also approaches all research and teaching, research-only and teaching-only staff who are eligible for promotion to encourage them to apply. PDRAs can be promoted if resourcing provision is included in their project budget and they can demonstrate independent expertise.

All promotion cases are considered at Exec against the Career Progression Criteria and benchmarks for the appropriate promotion at Bath and at other UK Chemistry Departments. The Deputy HoD then provides feedback to the candidate and co-ordinates the completion of the documentation for submission to ASC. If the Department believes the case is premature, the Deputy HoD offers to work with the member of staff to develop an action plan to help achieve the necessary criteria for promotion. The individual staff member makes the final decision about whether they will go forward, department support is not a prerequisite.

In the case for promotion to professor, the case goes forward to the Faculty Professorial Promotion Committee chaired by the Dean of Science. The Dean provides feedback and approval to go forward to the Vice-Chancellor to establish if there is a *prima facie* case for promotion.

Departmental promotions are discussed in section 4.1 and are listed in Table 21. Table 22 shows a 100% success rate for promotion. This does not mean the department is conservative about putting candidates forward. Since 2013 only one member of staff has decided to delay an application following department advice. 49% of all teaching-only and research and teaching staff have been promoted since 2013 (50% female). Despite this, the culture survey has shown a decrease in the number of staff agreeing that 'I understand the promotion process and criteria in the university' (73% agree in 2015/15; 43% agree in 2016/17). Two issues became clear in the free comments.

- PDRAs were not clear about promotion/regrading pathways. We will Improve training for staff who carry out PDRA appraisals (**SA6.1**)
- Academic staff highlighted a perceived over-emphasis on research output over teaching. We will produce case studies of staff promoted on teaching and management excellence (**SA6.2**) and provide better guidance (**SA6.3**)

Silver Actions to maintain clear and transparent promotion pathways:

- 6.1 Improve training for staff who carry out appraisals for PDRAs.
- 6.2 Create case studies of staff who have been promoted based on teaching and management excellence and disseminate via the department wiki.
- 6.3 Provide guidance and information documents about promotion pathways for Teaching Fellows.

Table 21. Number of Promotions within the Department of Chemistry between 2012 and 2017.

<b>2012/13</b>	1 Male translated from SL to Reader 1 Male promoted from Lecturer to Senior Lecturer (SL) 1 Female promoted from Lecturer to SL
<b>2013/14</b>	1 Female promoted from Lecturer to SL 1 Female promoted from Lecturer to Reader 1 Male promoted to Professor 1 Female promoted from Reader to Professor
<b>2014/15</b>	2 Males promoted from Lecturer to SL 1 Female translated from SL to Reader 1 Female promoted from Teaching Fellow grade 7 to Teaching Fellow grade 8
<b>2015/16</b>	1 Male translated from SL to Reader 1 Female promoted from grade 8 Teaching Fellow to Senior Teaching Fellow (0.8 FTE) 3 Males promoted from SL/Reader to Professor
<b>2016/17</b>	1 Male promoted from Lecturer to SL 3 Females Promoted from Reader to Professor

Table 22. Success rates by gender for staff applying for promotion between 2012 and 2017 within the Department of Chemistry.

Chemistry: Academic Promotions	Applications				Promotions				Success rate		
	Female	Male	Total	% Female	Female	Male	Total	% Female	Female	Male	Total
<b>Total</b>	6	5	11	55%	6	5	11	55%	100%	100%	100%
<b>2012/13</b>	1	2	3	33%	1	2	3	33%	100%	100%	100%
<b>2013/14</b>	3	1	4	75%	3	1	4	75%	100%	100%	100%
<b>2014/15</b>	2	2	4	50%	2	2	4	50%	100%	100%	100%
<b>2015/16</b>	1	4	5	20%	1	4	5	20%	100%	100%	100%
<b>2016/17</b>	2	1	3	67%	2	1	3	67%	100%	100%	100%



(iv) Department submissions to the Research Excellence Framework (REF) [116 words]

In 2014 100% of eligible female staff and 87% of eligible male staff were submitted to the Research Excellence Framework (REF) (Table 23). In contrast 100% of all eligible staff were submitted to the 2008 Research Assessment Exercise (RAE) (Table 24). In 2014 decisions about staff inclusion in REF were made centrally by the University. Chemistry staff were informed whether they were to be submitted by a confidential personal letter from the HoD. The letter emphasised the contribution all staff make to teaching, administration and research in the department and explained the research-based criteria used to make decisions about submissions. Staff who has had maternity leave during the submission period submitted a lower number of papers.

Table 23. Number of academic staff in the Department of Chemistry submitted to REF 2014 by gender.

Submitted to REF 2014	Submitted to REF	Total eligible	% of eligible staff submitted
██████	█	█	██████
██████	██	██	██████
██████	██	██	██████

Table 24. Number of academic staff in the Department of Chemistry submitted to the RAE 2008 by gender.

Submitted to RAE 2008	Submitted to REF	Total eligible	% of eligible staff submitted
██████	█	█	██████
██████	██	██	██████
██████	██	██	██████

## 5.2 Key career transition points: professional and support staff

(i) Induction Professional and Support Staff (P&SS) [288 words]

On arrival, all P&SS (faculty and department managed) are welcomed by their line-manager and given an induction checklist to work through with a 'buddy' (experienced P&SS from another department). New technical staff are given a tour of buildings and facilities, introduced to key colleagues and given a Health and Safety induction. P&SS are asked to complete training in Diversity in the Workplace, Unconscious Bias and Information Security. All new staff are invited to the well-attended bi-monthly 'Introduction to the University of Bath'.

P&SS have a 6-month probationary period. Line managers meet with new starters and set probationary objectives (based on the Effective Behaviours Framework) which are then formally monitored at mid and end of probation. Staff are signposted to training and support services at the University. All staff are fully engaged from the start of their employment and their progress and well-being are closely monitored. Using a behaviours framework ensures that meaningful, SMART objectives are set and expectations are clearly set out. We review effectiveness by seeking feedback during the probationary period, at regular monitoring points from then on and through discussion with staff involved in the 'buddy' scheme. **According to the 2018 survey for technical and administrative staff, 86% of P&SS found their overall induction experience good to excellent.**

*'Joining Chemistry in Sep 2017, my induction was nicely structured- I received a 'Welcome' e-mail on my first day with all the relevant information, training and introductory courses. I had quite a lot to learn in my role as the new Department Administrator, however my 'buddy' and my work colleagues were always there to guide me and all the staff in the department were very patient and understanding.'*

- [REDACTED], Department of Chemistry, September 2018

(ii) Promotion P&SS [321 words]

Promotion does not exist for P&SS staff in the same way that it does for academic related staff. However, great attention is paid to individual personal development and the Faculty structure facilitates a clearly defined progression route. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Working closely with line-managers in formal appraisals, staff are encouraged to discuss career progression and then support is given to work towards agreed goals. This can include doing training courses, working towards a qualification or shadowing another role. **DSAT actions** led to organisation of a Continuing Personal Development (CPD) week for technical staff in July 2018. Staff had the opportunity to attend courses across the Science and Engineering faculties. The Faculty Careers Consultant (available to all P&SS and academic staff) and Director of Administration run regular 'Personal MOT' courses focussing on career development (designed following feedback from staff at appraisals). Staff are also encouraged to participate in central University training.

P&SS receive annual increments until they reach the top of the scale for grades 1-9. P&SS can also have their roles evaluated and be regraded or apply for higher grade roles. P&SS are eligible for Recognising Excellence Awards (REA) or Outstanding Contribution Awards (OCA) which lead to a one off payment or a permanent pay increase respectively. Since 2013 2 Chemistry P&SS have received OCA and 12 have been awarded REA. One of our lab technicians won a separate Faculty Learning Support Award in 2018.

### 5.3 Career development: academic staff

#### (i) Training [424 words]

##### Bronze Achievement:

96% of staff have completed training on diversity in the workplace , and 88% have completed training on unconscious bias within 2 years of starting.

All teaching and research, teaching-only and research-only staff are encouraged during appraisals to develop new skills to support their career development. After starting, staff at all levels must attend mandatory H&S training and practical fire safety training. There are also compulsory online courses covering the bribery act, recruitment training, fire safety awareness and information security.

**To better support PDRAs develop teaching skills, a bespoke 5-day teaching programme ‘Kick Start to HE Teaching’ was introduced in 2017.** PDRAs are also encouraged to take part in the new ‘Academic Career Academy’ which includes tailored support to build the skills necessary to apply for and obtain a lectureship/fellowship.

**The DSAT** promoted additional optional courses in unconscious bias and diversity in the workplace to all staff in staff meetings and via e-mail. **The impact has been that 100% of male staff and 91% of female staff have completed diversity training and 89% of male staff and 82% of female staff have completed unconscious bias training within two years of starting.** We will focus on continued promotion of the two courses, and an increase in the number of staff completing the courses.

For new lecturers on probation, the Bath Course provides a comprehensive induction and helps staff to become competent teachers and research managers. Uptake is listed in Table 25.

Table 25. Number of new lecturers/research fellows taking part in central training courses by gender (\*course did not run before 2015/16).

Training course attended	2014/15			2015/16			2016/17		
	F	M	%F	F	M	%F	F	M	%F
The Bath Course	0	1	0	2	1	67	3	4	43
Researcher Development	*	*	*	21	27	44	27	38	42
Additional training courses	6	3	67	6	11	35	2	1	67

Staff (including all PDRAs) are made aware of training activities through regular e-mails and news items from Academic Staff Development; other opportunities are discussed during the appraisal process. Bespoke events are organised on request, recently these have included training in using multiple choice questions for assessments. The University is committed to increase the number of women participating in the Aurora Leadership Programme and has increased the number of funded places to 15/year and improved publicity about the application process. Two people from Chemistry (one academic related and one Senior Lecturer) successfully received places in 2015 and 2018 respectively. **We will increase awareness about Aurora and increase uptake (SA7.1).**

Silver Action 7.1: Increase the number of female staff applying for the Aurora programme.

The effectiveness of training is evaluated by light-touch immediate feedback typically through questionnaires. Longer programmes include follow-up over a number of months to establish the achieved learning.

*"Like most junior academic staff, I did not have any formal training in teaching, so the Bath course was key in getting me up to speed with the Education literature and best practices in the field. It made me realise how diverse the student population is and how teaching and learning methods can be adapted to make Higher Education as inclusive as possible".*

(ii) Appraisal/development review [258 words]

It is compulsory for non-casual academic staff to undertake an annual Staff Development and Performance Review (SDPR). Staff on probation have a progress review with the HoD. All other staff have SDPRs with their line manager. Figure 23 shows uptake for academic staff and P&SS. SDPRs include a formal meeting where performance objectives are set for the next year. It is also a chance to get feedback on recent performance, to discuss progress towards promotion and to explore training opportunities and career aspirations. Completed SDPR forms are collected by the department admin team and are seen by the HoD before being sent to HR. Follow up meetings are offered six months after the SDPR.

Bronze achievements:

- Since 2016 100% of staff carrying out appraisals for academic teaching and research staff have received training in carrying out SDPRs.
- The new streamlined SPDR process has increased the number of PDRA's choosing to have appraisals from 10% in 2016/2017 to 50% in 2017/18.

Feedback from our 2015 culture survey suggested that most staff did not find the SDPR useful, so we focused on making it more effective. Since 2015 mandatory training for all appraisers has been introduced and 100% of appraisers for research and teaching staff have received the training. DSAT introduced new streamlined paperwork for PDRA appraisals as feedback from a PDRA focus group in 2017 suggested the existing process was not relevant to their development stage. This has led to **an increase in SDPR uptake by PDRA from 10% in 2015/16 to 50% in 2016/17.**

Despite the improvements, the number of staff agreeing that they have had a useful SDPR in the survey has not increased since 2015. The department has raised the problem with HR and we have agreed to work with them to pilot a new appraisal process 'career conversations' for 2019/20 (SA8.1-8.2).

Silver Actions to ensure an effective appraisal process for academic related staff:

- 8.1 Set up a HR Chemistry working group to develop a new appraisal process that is relevant to career development of research and teaching related staff in Chemistry. Trial the new process in 2019 and gather feedback.
- 8.2 HR will provide bespoke training for all staff acting as appraisers in Chemistry once the new appraisal process is defined.

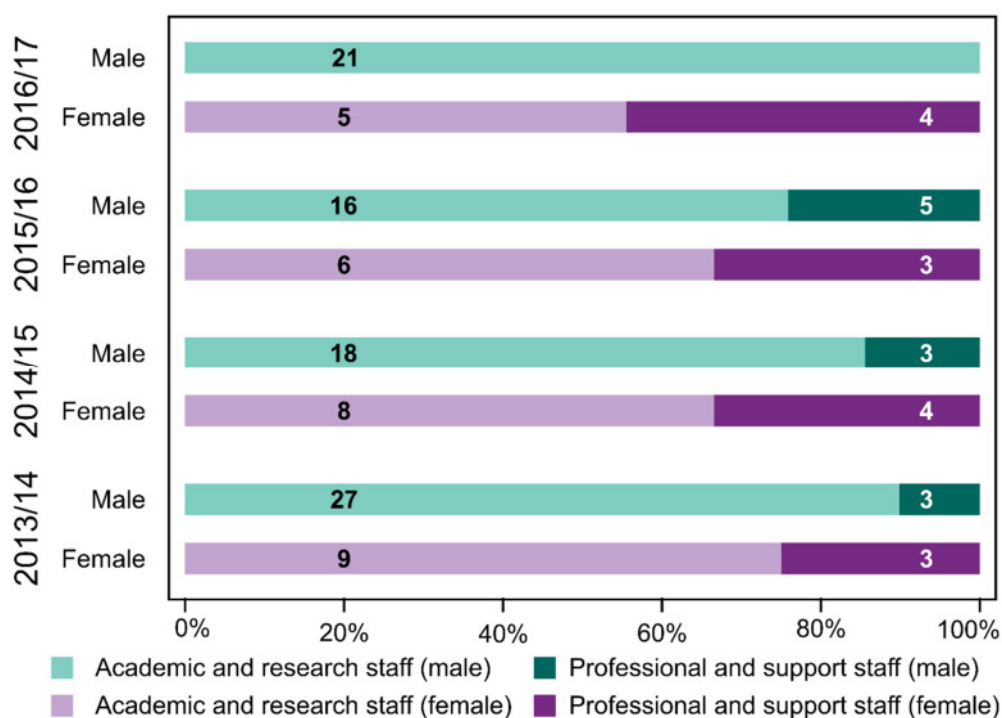


Figure 23. Numbers of staff completing annual appraisals in the Department of Chemistry by gender and job role from 2013/14 to 2016/17.

(iii) Support given to academic staff for career progression [312 words]

To give new lecturers space to develop they have a reduced teaching load which increases to a full load over 3-5 years. New lecturers also receive start-up funds and a PhD student to help establish their research effort. New fellows receive start-up funds and (depending on the fellowship) either do no or very small amounts of teaching. All new staff are allocated a mentor who helps with orientation and gives support during the probationary period and beyond. Early career staff also take part in the Bath Course as described in 5.3(i). Discussions about career progression are held annually during appraisals, and all appraisers are asked to highlight the requirements and procedure for progression annually.

*“Peer-peer mentoring, which can only work in departments with a positive atmosphere, has been very helpful to me. Informal discussions and mentoring from more experienced staff are readily available, I cannot remember having encountered a ‘closed door’.”*

A key priority for the next four years is to support the progression of PDRAs onto fellowships and new lectureships. Our PDRA Network organises regular careers talks, with two well-attended seminars so far in 2018. There is a new streamlined SPDR process for PDRAs (see 5.3 (ii)), allowing them to have a focused annual careers discussion with their line manager. All PDRAs have profiles on the University’s research portal PURE. This allows them to showcase publications, awards and research grants. PDRAs are encouraged to view and compare profiles from staff at every career stage to help understand progression requirements. **The department has a PDRA/PGR Away Day with a strong focus on career development. We recently increased the number of teaching opportunities to help PDRAs build experience before applying for academic positions.** PDRAs

have access to independent careers advice through the University careers service. **SA 9.1-9.5** focus on strengthening support for PDRAs in the department.

Silver Actions to strengthen support for career progression of PDRAs:

- 9.1 All teaching opportunities for lab demonstrating and tutoring to be openly advertised for applications in advance of each academic year.
- 9.2 Improve advertising of mentoring opportunities to PDRAs via (i) e mail and (ii) the PDRA Network. Advertise annually to reach new PDRAs.
- 9.3 Increase the number of careers talks relevant to PDRAs.
- 9.4 Run a bespoke training day how to maximise your research profile in PURE .

(iv) Support given to students (at any level) for academic career progression [557 words]

All our undergraduate students are allocated a personal tutor on arrival. The tutor is responsible for academic guidance and pastoral support. 75% of our third years take an industrial placement. We have a dedicated placements team who support students with training in how to write a CV, how to prepare a cover letter, mock interviews and writing job applications. In the final year, the Department runs a “What next? Why study for a PhD?” seminar, where we have presentation from male and female PGR students. Undergraduates are also signposted to the Career’s Service who run an annual Autumn recruitment fair to put students and employers in contact. There is a Spring recruitment event which is for final year students who are seeking graduate employment. A skills development programme is embedded into our courses to support students to improve their employability, there is also the facility to have individual meetings for detailed discussions about career development.

Bronze Achievements:

- New structured induction for all PGR students.
- Introduction of a biennial away day for all PGR students and PDRA.
- Established annual careers day for PGR students.
- Strengthened networking opportunities for PGR students who have responsibility for the seminar programme and the Bolland symposium.
- Excellent feedback about the changes made to the PGR training programme at the 2018 away day.

PGR induction was redesigned in 2016. The new induction timetable is more structured, including H&S information and information signposting health and well-being services. Key research skills are outlined and training opportunities, such as accredited teaching/demonstrating courses are highlighted. PGR students are given the opportunities to act as tutors and to demonstrate in undergraduate labs after they have successfully completed a training course.

DSAT founded a biennial PGR/PDRA Away Day (held in 2016 and 2018) which includes focus groups with PGR students discussing support for career development.

*"I thought that the away day was a really good idea and gave the students an opportunity to talk freely about how they feel. It was especially good that there was a panel of staff at the end"*

**PGR student feedback about the biennial away day.**

At the 2016 Away Day, PGR students highlighted that they would like more advice about careers. As a result, the PGR Network set up an annual chemistry careers day. The PGR Network also highlights university events including industrial sponsored courses, seminars, visiting industrial recruiters and careers symposia. Table 26 shows that of the students graduating in 2017 77% of male respondents and 70% of female respondents stayed in STEM jobs. **SA 10.1** will increase support for the PGR Network and we will introduce PDRA mentoring of PGR students (**SA 10.3**).

DSAT has improved networking opportunities for PGR students by giving them responsibility for inviting and hosting seminar speakers, as well as organising an annual one-day academic symposium (the Bolland symposium). The first careers day ran in 2016, and the first student-led Bolland symposium was in 2017. **Extremely positive feedback was collected for the new events by the PG DoS and at the 2018 away day.** We will focus on collecting quantitative feedback through the updated PGR culture survey (**SA10.2**).

*"It was good to have another careers day with different speakers from the previous year."*

*"The improved format for the Bolland was great this year! It felt far more inclusive as all members of the department turned up, and it was great to see new members of staff joining us too."*

*"The seminar programme was really well thought out as it was spread through the year and also took on board suggestions from the rest of the department. It was good to see so many female speakers in the programme as well!"*

**PGR student feedback about the new PGR Network events.**

Silver actions to strengthen support for PGR students:

- 10.1 Improve support for the PGR Network committee with time allocated in the workload model for the PG DoS to engage with the regular PGR Network meetings. DSAT chair to start attending two PGR Network meetings/year.
- 10.2 Collect quantitative information about the effectiveness of PGR Network events through a new PGR only culture survey.
- 10.3 Offer mentoring by PDRAs to all PGR students.

Table 26. Number of students graduating with a PGR degree remaining in STEM jobs (2017).

Destination	Female	Male	% Female in STEM jobs	% Male in STEM jobs
<b>2014/15</b>				
STEM	5	8	56%	100%
Non-STEM	1	0		
Unemployed	3	0		
<b>2015/16</b>				
STEM	9	10	82%	63%
Non-STEM	2	4		
Unemployed	0	2		
<b>2016/17</b>				
STEM	7	13	70%	81%
Non-STEM	0	2		
Unemployed	3	1		

(v) Support offered to those applying for research grant applications [193 words]

Staff applying for funding are supported by the University's Research and Innovation Service (RIS). Events include grant writing surgeries, structured workshops for specific calls (e.g. European Research Council Fellowships, University Research Fellowships), mock grant review panels and peer-review of proposals. RIS also offers regular grant writing sessions in a quiet room where a member of RIS is present to answer questions or provide support.

Staff are supported internally by mentoring and peer-review of grant applications. Early career staff meet with their mentors to discuss research ideas and the written proposal undergoes peer review by two senior colleagues. If the proposal is unsuccessful then a meeting is held with the mentor to discuss feedback from the grant funding body and how the proposal can be improved or targeted towards a different call. All research staff discuss grant proposals at their annual SDPR and targets are set for the number of proposals that will be written. All staff can opt to receive support in grant writing from a departmental mentor. Internal peer review is open to all staff. Table 27 shows that females in Chemistry are applying for and being awarded more grants than males.

Table 27. % total grant income going to female staff and % grant applications made by female staff as a function of total value of grants applied for.

Year	% female staff in the department (at lecturer level and above)	% total grant income going to female staff	% grant applications made by female staff (successful and unsuccessful) as a function of total value.
2014/15	18%	32%	19%
2015/16	18%	35%	47%
2016/17	23%	36%	30%



## 5.4 Career development: professional and support staff

### (i) Training P&SS [115 words]

P&SS staff are strongly encouraged to develop new skills to support career development. Training opportunities are promoted by e-mail and available on the intranet including an online development tool. The majority of technical staff do gas safety training, PAT training and training in Risk Assessments and COSHH forms. The effectiveness of this training is evaluated as part of the course, with positive verbal feedback in the last three years. There is training in supporting undergraduate teaching for all members of the teaching team. In 2018 two Institution of Occupational Safety and Health training programs (Working Safely and Managing Safely) have been offered with the aim that all technical staff will have completed them by 2019.

### (vi) Appraisal/development review P&SS [121 words]

The annual SDPR process has been developed to become 'SDPR+' for P&SS to relate to the Effective Behaviours Framework (so this tool is used effectively from recruitment through probation to the review process). 100% of line-managers undertaking reviews have now attended a training course and there is an optional course for reviewees. As part of this appraisal process, performance is reviewed, objectives set for the coming year and career development discussed. There has been a significant shift over recent years so the process now focusses on development rather than performance. Completed SDPR forms are sent to the Faculty to monitor uptake. Interim meetings are used to monitor objectives and development needs. Feedback is collected annually and adjustments are made in response.

### (ii) Support given to professional and support staff for career progression [118 words]

Support is partly detailed in Section 5.2. P&SS are encouraged to look into development opportunities both at the University and externally. P&SS can undertake work shadowing senior roles, with one administrator doing this in 2018. Technical and admin staff can apply for secondments to different roles across the University (two members of Chemistry did this in 2017). [REDACTED]

[REDACTED] All the technical team have been encouraged to take part in an upcoming NEBOSH training event. Additional development opportunities are available on the HR website and staff are supported to participate in courses of interest to them or of relevance to their posts.

## 5.5 Flexible working and managing career breaks

### (i) Cover and support for maternity and adoption leave: before leave [173 words]

As soon as a member of staff informs her line-manager that she is pregnant, a meeting is arranged with the line-manager and (in the case of laboratory staff) the Faculty Health and Safety Manager. The risks to the mother and unborn child in the lab environment are assessed. If chemicals used present a risk, they can be removed for the duration of the pregnancy. If this is not possible the staff member is asked to move to a different lab, or sometimes a desk-based role, while pregnant.

Once the dates for leave are known, the staff member meets with their line manager to discuss a phased temporary transfer of duties to colleagues. In the case of P&SS and Teaching Fellows a temporary position is advertised to cover maternity leave. In the case of research staff, duties are transferred to colleagues for the duration of the leave. There is also a formal meeting with the line-manager and with HR to pass over information about university policy, maternity pay and keeping in touch (KIT) days.

Silver actions to improve practice before, during and after maternity leave:

11.1 Offer mentoring (ideally by women who have previously taken maternity leave) for staff before and after they go on maternity leave.

(ii) Cover and support for maternity and adoption leave: during leave [151 words]

During leave, staff can choose to take up to ten paid KIT days. For academic staff these are frequently used to stay in touch with their research group, for attending relevant staff meetings or for working on grant applications. Staff on leave receive all department e-mails and are welcomed to department social events.

A **bronze action** was to improve facilities for mothers who wished to bring their children to work on KIT days. In response to comments from new parents, DSAT campaigned for a changing table to be installed in the chemistry buildings. In 2016 the only changing table was a 10-minute walk away. After explaining the need to Estates, **a changing table was installed in early 2018**. A private room with an armchair was identified and it is now signposted to breastfeeding mothers who would like to use it. Mothers are also welcome to breastfeed during social events or meetings.

Bronze Achievements:

BA 2.5 As a result of DSAT actions a baby changing table was installed in the chemistry teaching building in 2018.

(iii) Cover and support for maternity and adoption leave: returning to work [66 words]

On returning to work, parents meet with their line manager to support their return to duties, a phased return can be requested. We have an Ofsted outstanding on-site nursery and staff can pay using a salary sacrifice or voucher scheme. Teaching and research staff are offered a semester-long sabbatical from teaching on return, allowing time to focus on their research groups after a period of absence.

Bronze Achievements:

Department policy was updated to introduce a semester long sabbatical from teaching after returning from maternity leave to allow staff to focus on research.

(iv) Maternity return rate [92 words]

*Between 2013 and 2017 there was a 100% return rate after maternity leave (Table 28). Of the nine Academic and Research staff, all but one are still in position in October 2018.*

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Table 28. Return rates for staff taking maternity leave between 2013 and 2017.

		Return Rate (%)	Total Uptake	Returned	Not Returned	Future Return
Academic and Research staff	2013/14	100%	2	2	0	0
	2014/15	100%	1	1	0	0
	2015/16	100%	3	3	0	0
	2016/17	100%	3	3	0	0
Professional and Support Staff (*)	2013/14	100%	1	1	0	0
	2014/15	100%	1	1	0	0
	2015/16	-	0	-	-	-
	2016/17	100%	1	1	0	0

) Paternity, shared parental, adoption, and parental leave uptake [57 words]

Seven members of staff took two weeks paternity leave from 2013-2017, as far as we are aware all eligible staff took this leave (Table 29). Information about paternity and shared parental leave is available to staff through the department wiki, the University website and from HR. No staff took shared parental leave: we will increase publicity (**SA11.1**).

Silver Action
11.2: Raise the profile of shared parental leave to all staff
11.3: Offer mentoring before and after leave (ideally by staff who have taken recent parental leave) to new fathers or those with new caring roles.

Table 29. Number of staff taking paternity leave between 2013 and 2017.

		Paternity Leave	Shared Parental Leave	Parental Leave
Academic and Research staff	2013/14	2	0	0
	2014/15	2	0	0
	2015/16	1	0	0
	2016/17	1	0	0
Professional and Support Staff (*)	2013/14	0	0	0
	2014/15	0	0	0
	2015/16	0	0	0
	2016/17	1	0	0

(vi) Flexible working [165 words]

The Department supports staff who wish to work flexibly and all requests for flexible working have been approved since 2013 (see Table 30). The move to flexible working involves a discussion with the line manager to ensure that workload is appropriate to the new contract.

All teaching staff who have caring responsibilities can apply for a 'teaching exemption agreement' annually. The teaching day at Bath is timetabled between 08:15 and 19:05; a teaching exemption covers either mornings or evenings.

**Bronze Achievement: a 26% increase in the number of female staff who feel informed about leave and our flexible working policy**

We have worked to increase awareness about the right to work flexibly by disseminating information through e-mails and the department wiki. **The impact is that in 2017, 70% staff (73% female staff) agreed that they knew where to find University policy about flexible working. This is an increase from 65% (50% female staff) agreeing in 2016 and 63% (47% female staff) agreeing in 2015.**

*Table 30. Number of chemistry staff who have been granted requests for flexible working between 2013 and 2017.*

<b>Academic and Research Staff</b>	<b>Female</b>	<b>Male</b>	<b>% Female</b>
<b>2013/14</b>	1	0	100%
<b>2014/15</b>	0	0	
<b>2015/16</b>	0	1	0%
<b>2016/17</b>	1	0	100%
<b>Professional and Support Staff</b>	<b>Female</b>	<b>Male</b>	<b>Total</b>
<b>2013/14</b>	0	0	0
<b>2014/15</b>	2	0	100%
<b>2015/16</b>	0	0	0
<b>2016/17</b>	0	0	0

(vii) Transition from part-time back to full-time work after career breaks [61 words]

The Department fully supports all requests for increased working hours. The HoD prepares a business case and meets with the member of staff to ensure a manageable and phased return to a full-time workload. [REDACTED]

## 5.6 Organisation and culture

### (i) Culture [440 words]

The Department is working hard to embed Athena SWAN principles. The DSAT interacts with chemists at every career stage, undergraduates through the SSLC, PGR students through the PGR Network, PDRA through the PDRA Network and all staff at bimonthly staff meetings.

Progress on Athena SWAN actions and EDI issues raised by staff/students are a standing item at weekly Exec meetings. This allows the HoD and other senior staff to monitor progress and to ensure that we include an awareness of Athena SWAN in all the regular business of the department.

*“Some friends and I were recently commenting on the positive effect of having young female academics around the department but also often with children. It is great to see other people achieve something which seems to me to be an enormous barrier to academia, and really gives a nice feel to the department.”*

**Female PhD student, 2017 Student Culture Survey.**

The Athena SWAN process has had a positive impact on department culture. In our 2017 staff survey 85% staff agreed that the department had an inclusive environment (81% female staff). 83% female staff and 80% male staff agreed that departmental events were welcoming to both men and women. **There has been a 20% increase in the number of women agreeing that ‘my department treats people the same irrespective of gender’ (80% in 2017/18, 60% in 2015/16) whereas the number of men agreeing has stayed constant (74% in 2015/16 and 75% in 2016/17). There has been a 17% increase in the number of female staff agreeing that ‘Department culture makes it clear that offensive/inappropriate language and behaviour are not acceptable’ (77% females and 83% males agree in 2016/17; 60% females and 73% males agreed in 2015/16).** Staff engagement with Athena SWAN has increased, evidenced by >40% increase in responses to our staff survey (Table 2).

*“I think the department is trying very hard to increase its inclusiveness and is succeeding in doing so by changes in the departmental culture. I'm not sure it has fully achieved this yet but large strides have been made.”*

**Female Member of Staff, 2017 Staff Culture Survey.**

DSAT has improved social aspects of the department by introducing the popular ‘Great Chemistry Bake-Off’ (see Figure 24); regular PDRA pizza and networking evenings, PDRA picnics (Figure 25), regular PGR Network socials, a summer BBQ and the departmental Christmas dinner.

*“The BBQ day was such a fabulous idea.”*

*“The big departmental socials are really good! The Christmas meal is great and it's so nice to bring everyone together, I also like the fact we have a summer social now too with the BBQ day.”*

**Feedback from female PGR students.**

*Figure 24. The Great Chemistry Bake-Off 2017 – our popular chemistry inspired baking competition open to all staff and students. (left) After the judging comes the eating. (top right) two final year undergraduates testing the bakes and (bottom right) an NMR spectrometer made of cake.*

*Figure 25. PDRA Network picnic summer 2018.*

(ii) HR policies [191 words]

University HR policies are detailed on the University website and the Department coordinator regularly e-mails staff to signpost information about equality, dignity at work, bullying, harassment, and grievances. [REDACTED]

[REDACTED] **DSAT introduced an annual training session on positive workplace behaviour. This ran for the first time in 2018 and was attended by 100% of PGR and 50% of staff, SA 12.1 will work to increase uptake and monitor impact.**

Silver Action 12.1: (1) Increase take up of annual positive workplace training course, (2) monitor impact through the staff survey.

The Chair of DSAT acts as the Department Equality and Diversity representative and is a visible contact for staff raising concerns about behaviour or culture that would indicate differences between policy and practice. When a problem arises, or a significant new or updated policy is implemented, it is first discussed at Exec. The HoD and the Faculty HR Business Partner are responsible for taking action. New policies are disseminated to staff at staff meetings and uptake of relevant training is reported to the HoD via the faculty.

(iii) Representation of men and women on committees [143 words]

**The method of appointing staff to committees has been made much more transparent.** The Chemistry wiki now provides full information about committee membership. All roles are rotated every three years and new members are sought using an open call for applications. Where multiple applications are received, Exec is responsible for interviewing and appointing candidates. Members of the PGR Network Committee and UG SSLC are rotated annually with members elected by vote.

The **impact** is an increase in female representation on **the most influential** committees since 2013 (see Table 31) and a better gender balance on the DSAT (58% female reduced to 47% female). Committee chairs have worked hard to improve gender balance by inviting both qualified men and women to apply. Committee membership is factored into the workload model and a reduction in other roles is arranged if the workload is too high.

Bronze Achievements:

- Implementation of a transparent process for appointing to committees.
- Improvement in gender balance on all influential committees.
- Increase in number of staff who agree that *My department takes positive action to encourage women and men to apply for posts in areas where they are under represented* (59% in 2015 to 64% in 2017).

Table 31. The composition of all Department of Chemistry committees.

Department Committee	2015	2016	2017	Change in % F since Bronze (2014)
Departmental Executive*	6 (33% female) male chair	6 (33% female) male chair	7 (43% female) male chair	↑ 23%
Research Committee*	11 (28% female) male chair	11 (37% female) male chair	13 (31% female) male chair	↑ 20%
Department Teaching and Learning Quality Committee (DTLQC) *	9 (33% female)	10 (30% female) male chair	10 (50% female) male chair	↑ 10%
Department Self-Assessment Team (DSAT) *	16 (56% female) female chair	16 (50% female) female chair	19 (47% female) female chair	↓ 11%
Department Health and Safety Committee*	13 (46% female) male chair	13 (54% female) male chair	11 (46% female) male chair	↑ 7%
PGR Network Committee	No Committee	7 (43% female) 1 male, 1 female shared chair	10 (30% female) 1 male, 1 female shared chair	New Committee
PDRA Network Committee	No Committee	No Committee	8 (63% female) female chair	New Committee
UG Staff Student Liaison Committee	26 (50% female)	26 (62% female) female chair	19 (42% female) male chair	Data not available

\* Most influential committees

(iv) Participation on influential external committees [72 words]

All staff are encouraged to participate in external committees. [REDACTED] (research councils, Royal Society, Royal Society of Chemistry and regulatory bodies) and internationally. Sitting on external committees is encouraged as it helps raise national and international profiles of both staff members and the Department. Time away is granted during the semester to attend meetings.



(v) Workload model [307 words]

The department is subject to a faculty-wide workload model (WLM), whereby the hours for teaching, research and administration are standardised between all departments. All staff are given a copy of their annual workload and can see anonymised workloads for other staff. Workloads are discussed during appraisals and adjusted where appropriate to make sure that loadings are fair. Staff can request adjustments to their workload in discussion with their line-manager at any time during the year. All formal administrative and leadership roles within the Department are rotated every three years.

The faculty workload model was first implemented in Chemistry in 2016/17. As a result, we do not yet have quantitative survey data on whether staff think it is transparent, though in a 2017 DSAT focus group the consensus was that the model was fair. The WLM has been used largely used to record work done rather than to assign tasks. It includes generous allowances for teaching and research support as well as professional development and, as such, the numbers themselves are of limited use. The real value of the model is the comparison between staff it affords. Analysis of the 2016/17 workload model by gender is given in Tables 32, 33 and 34. On average female staff have a slightly higher workload, although the seven staff with highest workloads are all male. Female professors have a high research loading as they have been very successful at bringing in funding (5.3(v)).

SA 13.1-13.2 will monitor workload by gender, adjustments to individual workloads where appropriate and monitoring staff attitudes towards workload and the WLM in the staff survey.

*“The WLM allows the department to take a holistic view on allocation of teaching/admin tasks. It is transparent and allows the department to identify staff members with a high workload and facilitates this being easily remedied.”*

Silver actions:

- 13.1 Start to monitor staff attitudes to the workload model in the staff culture survey.
- 13.2 Carry out an annual analysis of the workload model by gender and make adjustments to staff workloads to prevent overload where necessary.

[REDACTED]		[REDACTED]			
[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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[Redacted]

(vi) Timing of departmental meetings and social gatherings [120 words]

"I appreciate how the department management team are trying to give all staff an opportunity to attend meetings, by ensuring they don't always fall on the same day or time."

All official departmental meetings, seminars and social events, **are scheduled to take place during core hours** (10-4); with Exec monitoring that this actually occurs. In January 2018 the DSAT introduced best practice and started cycling the time and day of DSAT meetings to allow as many part-time staff as possible to attend. **With the support of the HoD, the time and day of bimonthly staff meetings have been cycled since August 2018.** SA 14.1 will focus on cycling other meetings in the department.

Bronze Impact:

- All department meetings and social events are held during core hours.
- The times and days of DSAT and staff meetings are cycled to allow part time staff to attend.

Silver Action 14.1: Where possible, cycle the day and time that all department meetings are held.

(vii) Visibility of role models [222 words]

A **Bronze Action** was to increase the number of external role models by ensuring at least 33% of our seminar speakers were female. Before 2016 <30% of seminar speakers were female. The newly established PGR Network, supported by the PG DoS, was tasked with broadening the range of speakers invited. The **impact** of the change is that in 2016 and in 2017 **50% of our seminar speakers were female**. Our November 2017 staff survey showed a **13% increase in the number of staff agreeing that the 'department uses women as well as men as visible role models e.g. in staff inductions, as speakers at conferences, at recruitment events': 75% (75% female) agree in 2016 increased to 88% (80% female) agree in 2017.**

Bronze Achievements:

- 50% of our seminar speakers are now female.
- 13% increase in the number of staff agreeing that the *department uses women as well as men as visible role models e.g. in staff inductions, as speakers at conferences, at recruitment events*. (88% agree).

As a result of **Bronze Actions**, DSAT reviewed all outward facing prospectuses and websites. The **impact of this was a redesign of our website and prospectus in 2016/17**. The Admissions Tutor, who is part of DSAT, ensured that the prospectus and website contained equal numbers of photographs and case studies from both genders. A new video on student life in Bath contains interviews with equal numbers of male and female students. Silver actions focus on introducing

annual monitoring of all outward facing websites and prospectuses and generating a library of stock photos of female staff for the faculty web team (**SA15.1-15.2**).

#### Bronze Achievement 1.3:

- A new website with gender balanced content.

Silver Actions to grow the number of visible female role models:

- 15.1. Introduce annual monitoring of the department website and all promotional material for gender balance.
- 15.2 Generate a library of stock photos of female staff for faculty generated publicity material

#### (viii) Outreach activities [395 words]

*'The students who delivered the session were amazing, excellent communicators and sharing their own academic experiences and details about their own research areas really inspired many of our students.'* **Feedback from secondary teacher on 'Spectroscopy in a Suitcase'.**

The department interacts with >2000 school pupils (~50% female) a year through its outreach programme (Figure 26). Activities include monthly visits to our spectroscopy facilities, synthesis lab days in our labs and taking portable spectroscopy equipment into schools for hands-on workshops through the Royal Society of Chemistry Spectroscopy in a Suitcase scheme. This is overseen by the Schools Liaison and Widening Participation co-ordinator (female) and carried out by staff (16 staff, 50% female) and trained postgraduate students (20 PGR, 50% female). Feedback from students is collected on the day using a questionnaire, feedback from teachers is collected 1-2 weeks after the event. A silver action will be to collect more detailed gender and ethnicity data as part of the feedback questionnaire (**SA 16.1**). Staff participation in outreach is recognised in the workload model. Postgraduate students who are involved receive a certificate of participation at the end of the year. Students are also able to use their experience in outreach as part of their applications for Associate Fellowship of the HEA.

Since 2013 more than 50 staff and PGR students (~40% female) have run events for the public, including science festivals such as "Bath Taps into Science", Cheltenham Science Festival and the Royal Society Summer Exhibition, public lectures; and "pop-up" events at a range of venues such as Green Man festival, Bristol Royal Infirmary and the Holburne Museum. We run a final year undergraduate project which pairs groups of students with academics and trains them to design and deliver public engagement activities to a wide variety of audiences. The unit is coordinated by two staff (1 male, 1 female) and student participation has increased rapidly over the last three years: in 2015/16 7 students (3 male, 4 female), in 2016/17 12 students (1 male, 11 female) and in 2017/18 17 students (11 male, 6 female).

16.1 Interrogate gender and ethnicity of students attending events by updating the feedback questionnaire.

Excellence in public engagement is recognised through the Vice-Chancellor's award for Public Engagement (staff) and the Vice-Chancellor's Prize for Public Engagement with Research (won by a chemistry PGR student in 2018). Staff and PGR students have also won "I'm a Scientist, Get Me Out of Here" and been "Three Minute Thesis" UK finalists.

*Figure 26. Undergraduate students discussing plastic pollution and biodegradable plastics at Bristol Aquarium in 2017 (top right). Talking to school pupils about the chemistry of chocolate at Bath Taps into Science 2018 (top left). Postgraduate students presenting their research on renewable energy to visitors at the Family Fun Day 2017 at the Royal Institution Fair.*

## 6. CASE STUDIES: IMPACT ON INDIVIDUALS

**Recommended word count: Silver 1000 words [992 words]**

Figure 27. The 2017 Department Summer Party and BBQ – attended by staff and PGR.

### FURTHER INFORMATION

**Recommended word count: Bronze: 500 words | Silver: 500 words [260 words]**

The DSAT plays a vital role in organising social events for the department. These events include the Chemistry Bake Off as mentioned, but also an annual Summer Party (Figure 27). All staff and PGR are invited to this event, which is now in its fourth year and attracts >80 people. Children and partners are also invited and in 2018 six children attended and were entertained by some of the outreach team making giant bubbles! In 2017 we introduced a new 'Fumehood Shutdown Social', which was a get together when our laboratories were closed for maintenance. All staff and PGR were invited and more than 50 attended, we plan to make this a regular event in 2018. Finally, as a result of DSAT actions we moved from having separate Christmas dinners for academic sections to a whole department Christmas dinner. The Chemistry Christmas dinner is now one of the highlights of the year with >120 attendees. These social events have made a real difference to the atmosphere in the department, helping us to work as a coherent unit despite occupying four buildings on campus.

“Having been associated with the department on and off since 2007 as a student, postdoc and now member of academic staff I can without a doubt say that the social events organised by the DSAT committee have had an enormously beneficial influence on the department’s culture, sense of openness and of community. The Bake Off and summer BBQ are great fun and go a long way to eroding barriers between students and staff.”

## ACTION PLAN

What issues have been identified?	Specific Actions and Implementation	Timescale	Responsibility	Success criteria
<b>1. Strengthening the process of Department Self-Assessment</b>				
<p><b>Strengthen the DSAT and improve data collections through the staff and student surveys.</b></p> <p>The DSAT has expanded in remit since 2015 to cover more EDI issues and to become a recognised point of contact for staff wishing to raise any EDI issues. DSAT membership needs to be monitored so that it continues to represent all career stages and job families. UG representation will be added. The culture surveys are no longer fit for purpose and will be redesigned.</p>	1.1 Formalise the annual appointment of one female and one male undergraduate representative to DSAT.	December 2018	SSLC Chair	Undergraduate representatives are appointed to DSAT annually.
	1.2 Redesign of the Staff Survey so it can monitor progress towards silver actions and better capture EDI culture. The next survey is due in early 2019.	April 2019	DSAT Chair	An annual staff survey that monitors the EDI culture and progress towards silver actions is in place.
	1.3 Split the Student Survey into targeted PGR and UG surveys – PGR and UG students experience different environments and separate surveys will allow us to better evaluate their experiences.	April 2019	PGR Network Committee and SSLC Chair	Separate UG and PGR surveys put in place.

<b>2. Achieving gender balance on UG courses</b>				
<p><b>Improve gender balance on UG programmes</b></p> <p>We are below the sector average for number of female students.</p> <p>In 2016/17 our UGs were 41% female, compared to a sector average that is 46% female.</p> <p>Female students are more likely to choose the 3 year BSc degree (48% F) instead of the 4 year MChem degree (38% F).</p>	<p>2.1 Collect information about the gender balance of students registering for talks on Open Days. If we find there is a gender imbalance we will talk to the admissions team and ask them to reassess which schools they advertise to.</p>	<p>June 2019 – 2022</p>	<p>DSAT Chair</p>	<p>Information collated. Data showing whether we gain or lose female students between Open Day visits and formal application for a place.</p>
	<p>2.2.1 Increase the visibility of female staff/student role models in the UG prospectus, on the website and during 'virtual open days'.</p> <p>2.2.2 Analysis of gender balance in the UG prospectus and all online publicity materials carried out by DSAT reported annually from 2019 in the May staff meeting.</p> <p>2.2.3 Changes made where the prospectus is not representative of the diversity within the Department.</p>	<p>May 2020 – May 2022</p>	<p>Department co-ordinator</p>	<p>Report updates to all externally facing prospectuses and websites to DSAT.</p>
	<p>2.3 Collect more detailed information using the undergraduate student culture survey about why students have chosen Bath.</p>	<p>April 2019 – April 2022</p>	<p>DSAT</p>	<p>A report detailing the survey results.</p>
	<p>2.4.1 Investigate the reason why more females chose a 3-year instead of a 4-year programme.</p> <p>2.4.2 Prospectus and recruitment information redesigned to make both courses more attractive to women.</p>	<p>April 2019 – September 2020</p>	<p>DSAT</p>	<p>New prospectus released in 2020.</p>



<p><b>Address gender imbalance in UG degree attainment</b></p> <p>Female students are more likely than male students to obtain 1<sup>st</sup> and 2:1 degrees. The reasons for the difference in attainment are currently not understood.</p>	2.5 Compare A-level entry grades of male and female students and analyse these for both MChem and BSc programmes.	November 2019	DSAT Chair	Structural reasons for differences in attainment understood.
	2.6 Interrogate the split of marks across all courses and all years by gender to find if female/male students perform better on certain units or courses.	April 2020	Department administrator for UG programmes.	A report prepared for DSAT and Exec highlighting units where the average marks for male and female students are > 5% different.
	2.7 Analyse content and assessment criteria of any units with a marked (>5%) difference in average outcome by gender. Hold focus group to discuss differences with SSLC.	May 2020	Unit convenors and Director of Teaching, Chair of SSLC	Prepare a report that evidences reasons why male and female students are performing differently.
	2.8 Prepare an action plan and implement evidence-based strategies that better support male students to achieve their potential.	September 2020	Director of Teaching	Support strategies put in place to help male students achieve their full potential.

### 3. Achieving gender balance on PGR courses

<p><b>Improve the processes for recruiting PGR students.</b></p> <p>Only 34% of applicants for PGR studentships in 2017 were female. In contrast 56% of offers were made to females.</p>	3.1 Standardise the text used to advertise PhD positions to ensure it is not gender biased.	April 2019 – January 2020	HoD	Standardised text used in at least 90% of PhD recruitment adverts.
	3.2 Run focus groups with final year students to investigate the drop in % females applying for PhD positions.	March 2020	PG Admissions Tutor	Report results to DSAT.
	3.3 Trial active longlisting outside of the CDT.	November 2019, November 2020 and November 2021	PG Admissions Tutor	Active longlisting is trialled and result reported to DSAT. A decision is taken whether to expand the trial further.
	3.4 Investigate the reasons why the % female students being offered PhD students is above the % applying.	September 2019 – September 2020	Individual supervisors	Report evidence collected to DSAT.

4. Strengthen good practice in the recruitment process				
<p><b>We have changed our recruitment process which has led to an increase in the number of women being appointed to academic, teaching and research roles at every level in the department.</b></p> <p><b>This improvement must be maintained and the leak in the pipeline between PDRA and junior academic addressed</b></p> <p>The largest loss in female academics is between PDRA and junior academic level (research fellow or new lecturer).</p>	4.1 Ensure that male and female contact names are added to all adverts.	2019/20	DSAT Chair and HR	100% of adverts for new positions contain both male and female contact names.
	4.2 Introduce a seminar series for external PDRA's which will allow us to introduce talented researchers to the department (50% female). We will then be able to invite applications from these researchers when positions are available.	Annually from October 2019.	PDRA Network	Annual seminar series from PDRA's.
	4.3 Strengthen awareness of unconscious bias by asking all interview panels to watch the 3 minute refresher video on unconscious bias from the Royal Society before interviews ( <a href="https://royalsociety.org/topics-policy/publications/2015/unconscious-bias/">https://royalsociety.org/topics-policy/publications/2015/unconscious-bias/</a> ).	April 2019 onwards	HoD	100% of interview panel members watch the video before interviewing.
	4.4. Trial active longlisting (a gender balanced long list) for new academic and research positions where the number of applicants is large enough (>30).	April 2019 – April 2021	HoD	Trialled for recruitment of at least one academic/research position and feedback collected.
	4.5 Require panels to justify all male shortlists.	April 2019 – November 2021	HoD	Shortlists reported to Exec.
	4.6 Create and circulate 'best practice in recruitment' document to all line-managers.	December 2019	DSAT Chair and Deputy HoD	Document circulated to all line-managers

<b>5. Improve and standardise the induction process</b>				
<p><b>Extend the formal induction process to all PDRAs.</b></p> <p>The induction process has been completely changed under bronze actions and 100% of staff at research fellow level or above now have a formal induction to the Department. PDRAs currently have an induction with their line manager and their experience is more variable.</p>	5.1 Expand the formal departmental induction process to cover all PDRAs.	From April 2019 onwards	Department co-Ordinator	100% of PDRAs receive a formal induction. Increase in the number of staff agreeing that their induction was good to very good in the staff survey.
	5.2 Combine the induction survey and the staff/PGR culture surveys.	January 2019	DSAT Chair	Annual survey is put in place to monitor the induction process. At least 70% of staff (including PDRAs) agree that they have had a useful induction to the department.
	5.3 Line manager sign off on completed induction checklists, completed lists collected and monitored by department co-ordinators.	April 2018 onwards	Department co-ordinator	Numbers of completed induction documents reported to DSAT and Exec.

<b>6. Improve clarity and transparency of promotion pathways</b>				
<p><b>Ensure that promotion criteria and the promotion process is clear to all staff</b></p> <p>There has been a drop in the number of staff responding to the staff survey who agree with the comment that 'I understand the promotion process and criteria in the university'. Free comments highlight that not all PDRAs understand the promotion criteria and that some teaching and research staff feel there is a bias towards research excellence in the promotion process. At an all-staff 'silver action plan' meeting, Teaching Fellows asked for more information and support on progression, particularly from Senior Teaching Fellow to Professor.</p>	6.1 Improve training for staff who carry out appraisals for PDRAs.	Training introduced before Autumn 2019 appraisals	HoD	100% of supervisors carrying out PDRA appraisals highlight the promotion criteria in the University and discuss promotion and career progression pathways.
	6.2 Create case studies of staff who have been promoted based on teaching and management excellence and disseminate via the department wiki.	Online by Autumn 2019.	DSAT Chair	Promotion case studies circulated to all staff.
	6.3 Provide guidance and information about promotion pathways for Teaching Fellows. Create and disseminate promotion case studies about Teaching Fellows who have been promoted to Senior Teaching Fellow or Professor.	Online by January 2020	DSAT Chair	Circulate case studies to all staff and place on the department wiki
<b>7. Promote the Aurora Leadership Programme</b>				
<p><b>Increase awareness of and uptake of places on the Aurora Leadership Programme</b></p> <p>As part of its Bronze Action Plan the University committed to funding 15 places on the Aurora programme annually and to increase awareness about the programme.</p>	7.1 Align with USAT action to increase awareness about and the number of female staff applying for the Aurora programme.	March 2021	DSAT Chair	Information about the Aurora programme disseminated to all staff, both by e-mail and at staff meetings. Deputy HoD to recommend participation in person to female staff. At least one female staff member applying to participate by 2021.

8. Engage with HR to develop a new appraisal process for academic staff				
<p><b>Increase staff satisfaction with the appraisal process.</b></p> <p>Staff feedback in the 2015, 2016 and 2017 culture surveys suggests that while the SDPR+ process works well for P&amp;SS, not all academic staff find the SDPR process helpful. In our 2017 culture survey 19% of female staff and 25% of male staff disagreed with the statement that 'my department provides me with a helpful SDPR'. HR have recognised that the SDPRs can be improved and have asked Chemistry to become a pilot department – working with them to create the new process for academic staff.</p>	<p>8.1.1 Set up a HR-Chemistry working group to develop a new appraisal process that is relevant to career development of academic staff in Chemistry.</p> <p>8.1.2 Trial the new process in 2019.</p> <p>8.1.3 Collect feedback.</p>	<p>January 2019 – January 2020</p>	<p>HoD and HR business partner</p>	<p>The framework for the new process is agreed and the paperwork for appraiser and appraisee finalised. At least 30% of Chemistry academic staff trial the new appraisal format in 2019-20. Feedback is reported to a staff meeting.</p>
	<p>8.2 HR will provide bespoke training for all staff acting as appraisers in Chemistry.</p>	<p>January 2019</p>	<p>HR partner</p>	<p>Training sessions for all appraisers are completed.</p>

<b>9. Improve support for career development of PDRAs</b>				
<p><b>Improve access of PDRAs to teaching and tutoring opportunities</b></p> <p>A focus group was held in November 2017 with PDRAs to ask how the department could better support PDRA career development. PDRAs requested more opportunities to gain teaching experience widening the number of jobs they will be eligible for. They also highlighted a lack of transparency in how jobs were allocated.</p> <p><b>Increase uptake of mentoring by PDRAs</b></p> <p>Our bronze actions led to a mentoring scheme being established within the department. This has had a good uptake from early career fellows and mid-career researchers but a low uptake from PDRAs.</p>	<p>9.1 All teaching opportunities for lab demonstrating and tutoring to be openly advertised for applications in advance of each academic year.</p>	<p>July 2019</p>	<p>Director of Teaching</p>	<p>A &gt;15% increase in the number of PDRAs involved in teaching activities within the department.</p>
	<p>9.2 Improve advertising of mentoring opportunities to PDRAs via (i) e-mail and (ii) the PDRA Network. Advertise annually to reach new PDRAs. Ask more early career researchers (research fellows and new lecturers) to act as mentors for PDRAs as they have the most relevant experience of the next career step.</p>	<p>Establish from January 2020</p>	<p>Deputy HoD</p>	<p>All interested PDRAs are assigned to the mentoring process.</p> <p>A 10% increase in the number of PDRAs in the staff survey indicating that they have had a useful mentoring experience in the staff survey.</p>
	<p>9.4 Increase the number of careers talks relevant to PDRAs.</p> <p>The PDRA Network ran two well attended careers talks in 2017. We will support the Network to organise more events, including an annual PDRA careers day to complement the PGR careers day.</p>	<p>Start in November 2019</p>	<p>PDRA Network committee</p>	<p>An annual careers day is established.</p>
	<p>9.5 Run a bespoke training session on 'how to maximise your research profile in PURE'.</p>	<p>By December 2019</p>	<p>Web co-ordinator</p>	<p>At least 60% of PDRAs trained in how to best present and update their research profile.</p>

<b>10. Improve culture and environment for PGR students</b>				
<p><b>Ensure we continue to have a vibrant and active PGR Network.</b></p> <p>The PGR Network grew out of our bronze actions and has transformed the department by running all-department social events such as the "Great Chemistry Bake Off". They also contribute to the running of our seminar programme – helping it achieve gender balance for the first time.</p>	<p>10.1 Improve support the PGR Network committee with time allocated in the workload model for the PG DoS to engage with the regular PG Network meetings. The DSAT chair will attend two PGR Network meetings/year.</p>	<p>June 2019 – June 2020</p>	<p>PG Director of Studies DSAT Chair</p>	<p>The PG DoS is allocated 30 hours in the workload model to support the PGR Network. DSAT chair attends two meetings/year.</p>
	<p>10.2 Collect quantitative information about the effectiveness of PGR Network events through the new PGR culture survey.</p>	<p>January 2019</p>	<p>DSAT</p>	<p>Introduce a new PGR-only culture survey, in 2019 and annually thereafter.</p>
<p><b>Expand mentoring programme to include PDRA mentoring of PGR students.</b></p> <p>The PDRA and PGR networks have indicated that they would benefit from PDRA mentoring of PGR students as the PDRAs have the most recent experience of the next career stage. Ten PDRAs have already volunteered to be mentors.</p>	<p>10.3 Offer mentoring by PDRAs to all PGR students.</p>	<p>October 2019 – October 2021</p>	<p>Mentoring Co-ordinator</p>	<p>All interested PGR students are paired with a PDRA mentor.</p>



<b>11 Increase support for parental leave</b>				
Put in place better structures to support women before they go on maternity leave.	11.1 Offer mentoring (ideally by women who have previously taken maternity leave) for staff before and after they go on maternity leave.	January 2020	Mentoring Co-ordinator	All staff who go on maternity leave are offered mentoring.
<b>Ensure staff are aware of their options for parental leave.</b> Low uptake of shared parental leave	11.2 Raise the profile of shared parental leave to all staff.	August 2019	DSAT Chair	Regularly circulate information about the University leave policy, and shared parental leave.
	11.3 Offer mentoring before and after leave (ideally by staff who have taken recent parental leave) to new fathers or those with new caring roles	January 2020	Mentoring Co-ordinator	All staff who go on parental leave or carer's leave are offered mentoring.
<b>12. Embed positive workplace training into the department</b>				
<b>In the staff survey, one-fifth of colleagues report having felt uncomfortable in the past because of condescending or intimidating language, ridicule, jokes or banter.</b>	12.1.1 Increase take up of annual positive workplace training course. 12.1.2 Collect evidence on the impact using the redesigned staff survey.	October 2019 – October 2020	PG DoS	100% of staff and 100% of PGR students have attended the course.

**13. Ensure the effectiveness of the workload model**

<p><b>A new workload model was introduced by the Faculty of Science in 2017.</b></p> <p>The model has been widely accepted by staff, but no quantitative survey feedback has yet been collected</p>	<p>13.1 Start to monitor staff attitudes to the new workload model in the staff culture survey.</p>	<p>Next survey due January 2019</p>	<p>DSAT Chair</p>	<p>Questions about the new workload model are added to the staff survey and data is collected in the 2019, 2020 and 2021 surveys.</p>
	<p>13.2 Carry out an annual analysis of the workload model by gender and make adjustments to staff workloads to prevent overload where necessary.</p>	<p>December 2018 – November 2021</p>	<p>Workload Manager, HoD</p>	<p>Teaching and administration/ management loads to be adjusted by the HoD where necessary.</p>

**14. Make sure that part time staff can attend departmental meetings**

<p><b>All DSAT and Staff Meetings are now cycled to fall on different days and at different times.</b></p> <p>This allows more part-time staff to attend.</p>	<p>14.1 Where possible, cycle the day and time that department meetings are held. (in some cases, the committee administrator works part time and so it is not always possible to move the day of the meeting).</p>	<p>By May 2019</p>	<p>Department Co-ordinator</p>	<p>The timings of all teaching meetings and committees are cycled where possible.</p>
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<b>15. Grow the number of visible female role models in the department</b>				
<p><b>DSAT has worked hard to make sure there is equal representation from male and female students in the prospectus and online.</b></p> <p>One problem recently brought to our attention was a lack of stock photos of female staff, something we will work to remedy.</p>	15.1 Introduce annual monitoring of the department website and all promotional material for gender balance.	June 2019 – June 2021	DSAT Chair and Department Co-ordinator	All material is reported on annually, changes are requested from the web team and the University publicity team.
	15.2 Generate a library of stock photographs of female staff	January 2019 – March 2019	DSAT Chair and the University Photographer	A library of easily accessible photos is available.
<b>16. Introduce better monitoring of Outreach events</b>				
<p><b>We do not routinely monitor the gender or ethnicity of students attending outreach events.</b></p>	16.1 Interrogate gender and ethnicity of students attending events by updating the feedback questionnaire.	May 2019 – October 2021	Schools Liaison and Widening Participation Co-ordinator	Data collected and reported to DSAT.
<b>17. Additional actions to support PGR students</b>				
<p><b>Improve the consistency of supervision for PGR students.</b></p> <p>Free comments in our student culture survey highlighted that there are inconsistencies in the way researchers are treated by different supervisors e.g. going to conferences or take up other opportunities.</p>	17.1. Introduce a training session at the 2019 staff away day on good practice in doctoral supervision.	July 2019 – July 2021	DSAT Chair	At least 80% of research supervisors are trained in the first year, 100% by the third year.
	17.2. Prepare and circulate a one-page document outlining best practice in doctoral supervision.	July 2019	DSAT chair and Department Administrator	Questions about the quality of supervision added to the 2019 and 2020 student culture surveys. At least 90% of PGR students feel that they receive good supervision.

<p><b>Improve research group culture experienced by PGR students.</b></p> <p>11% of students responding to the 2017 student culture survey had been made to feel uncomfortable by inappropriate language or behaviour within research groups.</p>	17.3 Online training course on diversity in the workplace expanded so that it is compulsory for all PGR students (already compulsory for staff).	September 2019	HoD	<p>1. 90% uptake of training by PGR students.</p> <p>2. Feedback forms circulated and collected after training sessions to monitor effectiveness.</p>
	17.5 Improve signposting to support available. Highlight reporting to PG DoS, DSAT Chair and PG Ombudsman.	October 2019	PG DoS	An increase in the number of PGR students in the student survey who feel confident they know who to talk to about bullying or harassment.
<p><b>Improve the welcome for PhD students who do not start their studies during the official induction week.</b></p> <p>Some students do not start their studies at the beginning of the academic year in October and miss out on whole group induction, networking and social opportunities.</p>	17.6 Create a PGR induction document that can be used outside of welcome week.	Academic year 2019/20	PG DoS	Induction document given to all PGR students. At least 80% of respondents feel that they have had a useful induction.
	17.7 PGR Network events to be highlighted to new PGR students to help them meet other students within the department.	Academic year 2019/20	Department co-ordinator	100% of PGR students starting outside of induction week are given information about PGR Network events.
	17.8 Initiate informal monthly lunch open to all PGR students in department social space.	Academic year 2019/20	PGR Network	Regular well attended PGR lunch sessions.

**18. Increasing understanding of the Athena SWAN process**

<p><b>Improve staff involvement in the Athena SWAN process.</b></p> <p>Our staff surveys in 2015, 2016 and 2017 contained comments suggesting that Athena SWAN was felt to disadvantage male staff. We need to better communicate Athena SWAN goals.</p>	<p>18.1. The ways in which Athena SWAN benefits male and female staff highlighted at staff meetings.</p>	<p>April 2019 – December 2020</p>	<p>DSAT Chair</p>	<p>Staff meeting minutes show the inclusion of discussion about the Athena SWAN process.</p>
	<p>18.2. Case studies explaining how Athena SWAN has benefited male and female staff added to the department wiki.</p>	<p>Online by March 2020</p>	<p>DSAT Chair</p>	<p>Creation of case studies that are disseminated to all staff via the department Wiki and are showcased on our external website.</p>
	<p>18.3. Understanding of the Athena SWAN process probed in the 2019 staff survey.</p>	<p>March 2019</p>	<p>DSAT Chair</p>	<p>Culture study shows that at least 70% of staff understand the Athena SWAN goals.</p>