



Athena SWAN Silver Department award application

Name of institution: University of Manchester
application: April 21st 2011

Date of



Department: Chemistry

Contact for application: Prof John R Helliwell

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Departmental website address:
<http://www.chemistry.manchester.ac.uk/aboutus/athena/index.html>

Date of University of Manchester Bronze SWAN award: 2008

Level of award applied for: Silver

At the end of each section state the number of words used.

Click [here](#) for additional guidance on completing this template.

1. Letter of endorsement from the Head of Department – maximum 500 words

An accompanying letter of endorsement from the Head of Department should explain how the SWAN action plan and activities in the department contribute to the overall department strategy and academic mission.

The letter is an opportunity for the Head of Department to confirm their support for the application and to endorse and commend any women and SET activities that have made a significant contribution to the achievement of the departmental mission.

J C Whitehead Professor of Physical Chemistry
Head of the School of Chemistry
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21st April 2011

Dear Sir or Madam,

As Head of School, I am delighted to endorse this application for an Athena SWAN Silver departmental award which has the support of the School Management Team and all the staff. The School has made considerable progress since last year's application due in large part to the feedback received.

Our Self-Assessment Team was reshaped by Prof John Helliwell, our new School Athena SWAN Champion. The minutes of their meetings and reports to our School Board are at :- www.chemistry.manchester.ac.uk/aboutus/athena/index.html along with 'pen portraits' reflecting on the family and gender friendly aspects of working life here.

The University of Manchester which received the Athena SWAN Bronze Award in 2008 has an ambitious plan to be one of the top 25 Universities worldwide. Our staff is our most important asset in achieving this and we support them by regularly reviewing performance and providing training and development, designed to ensure equality of opportunity for all. Female staff are a vital component and a talent pool that cannot be under-represented.

Our success at the last RAE (ranked fourth for Research Power) was underpinned by our commitment to supporting our staff. Our Athena SWAN activities will very significantly help keep us at the leading edge of research and education in attracting and retaining female students and staff. We have a buoyant female fraction of UCAS applicants, undergraduates and postgraduates (~40%). The situation is much improved since 2000 helped by the culture change following the merger of the Victoria University of Manchester and UMIST Chemistry Departments in 2004. The benefits are not only fairness for female chemists but also the recognition that our ambitions to move up the world rankings must harness our graduate and PhD pool of female chemists better.

One of the areas that we have paid particular attention to in recent years is the inclusion of contract research and early career staff in School affairs; two key groups in which female staff representation has shown a significant increase. We established a PostDocs' Forum in 2009, with their own events and links to other postdocs in the Faculty. They can attend our School Board meetings, where they have a voting representative, and they have an elected member on the School Research and Health & Safety Committees. This proactive initiative has been put in place as an investment directly supporting female staff at the commencements of their academic careers.

The last decade has seen a dramatic increase in female academic and researcher appointments. We now have female academics at every career stage including Professor. Whilst the proportion can be improved, these academics continue to inspire other females to progress and 'aim high'. Linked to this we support our female academics and researchers to participate in representative roles at national and international levels. We also give strong support for flexible and family friendly working practices, as documented in our application here and our Athena SWAN website.

We believe we are also well placed to aim, in a few years, for an Athena SWAN Gold Award.

Yours faithfully,

Christopher Whitehead

499 words

2. The self-assessment process – maximum 1000 words

Describe the Self-Assessment Process. This should include:

- a) A description of the self assessment team: members' roles (both within the department and as part of the team) and their experiences of work-life balance;

<i>Name</i>	<i>Role within Athena SWAN in the School</i>	<i>Role within the School</i>	<i>Work place experience including 'work life balance'</i>
Prof John R Helliwell	Chair of the Self-Assessment Team and Working Group	Professor of Structural Chemistry since 1989.	Extensive experience of academia and of the scientific civil service, including upto Department Head level (240 staff). As a Joint Appointee between academe and Daresbury (since 1979) he also gained extensive experience of the 'work life balance' challenge comprising e.g. 'long hours working'.
Dr David Berrisford	Member	Lecturer in the School of Chemistry, based in the Manchester Interdisciplinary Biocentre. Roles: International Recruitment, Chair of Seminar Committee, Academic Coordinator Peer Assisted Study Scheme.	Experienced academic combining active research with teaching and administrative responsibilities. Married to J. Avis, who has an academic position in the Faculty of Life Sciences UoM. We are, therefore, experienced at managing the significant challenges associated with combining two academic careers with parenthood (Johanna and David have twins, aged 9).
Dr Cinzia Casiraghi	Member	Lecturer in Graphene	Cinzia has a Joint Affiliation between the School of

		Chemistry.	Chemistry and the University's Photon Sciences Institute (PSI). She has recently, at the time of writing, made herself available as a candidate for the PSI Research committee within the Research Leadership Group at PSI. She has experience in supporting two female PhD postgraduates at this time.
Dr Susannah Coote	Dr Susannah Coote	Post-Doctoral Researcher in Organic Chemistry and Chair of the School of Chemistry PostDocs' Forum.	Personal experience of the issues facing female scientists as they seek to move from postdoctoral research to an independent academic role (the key transition in which loss of female staff is most severe).
Dr Claire Eys	Member	Royal Society Dorothy Hodgkin Fellow, Acting Director Michael Barber Centre for Mass Spectrometry.	Research Fellow with Lectureship from 2012. Balances work (research, U/G & P/G teaching) with active young family (3 children aged 1-5). Makes use of flexible working and has had 3 periods of maternity leave since 2006. Participant in University WISSET events and provided oral history as a female scientist for the Manchester Museum of Science and Industry.
Ms Sue Field	Member	Head of Human Resources for the Faculty of Engineering and Physical Sciences.	Extensive knowledge of Human Resources (HR) policies and practices gained from 23 years in the University sector. Advisor to the Self Assessment Team on University of Manchester's HR Policies. Equality and Diversity Champion. Member of the University of Manchester's Panel for the successful Athena SWAN Bronze submission. Sue manages to balance a challenging University career

			with voluntary work and home responsibilities.
Prof Sabine Flitsch	Member (on sabbatical 2010 to 2011)	Professor of Biological Chemistry.	Most senior member of female academic staff. As a role model, Sabine took part, for example, in the recent 2011 International Women's week events at the University of Manchester, describing her research. Extensive participation in e.g. Royal Society of Chemistry Chemical Biology Conferences and Symposia organisation.
Dr Sarah Heath	Member	Reader in Inorganic Chemistry, Co-Director Nuclear FiRST DTC.	As a single parent with two school age children, the School is very supportive of the need to achieve a good work life balance: They allow flexible working hours so that I can combine home and work life more effectively; they help me timetable my teaching so that I can take my children to school; and they are making efforts to make sure the majority of meetings and activities fall within core working hours.
Mrs Christine Taylor	Member.	School Manager and Personal Assistant to the Head of School.	Extensive knowledge of the School's administration staff.
Prof Christopher Whitehead	Copied in to all the Self Assessment Team's meetings reports.	Head of School	Professor of Physical Chemistry; Extensive knowledge of the School; the School's overall Executive Authority.

The current Team, detailed above were able to build upon the work of the previous Team that submitted the 2010 application for an Athena SWAN Silver Award. One person (Dr Claire Eyers) was a member of the last and the current Self Assessment Team.

648 words

- b) an account of the self assessment process: details of the self assessment team meetings, including any consultation with staff or individuals outside of the university, and how these have fed into the submission;

The Self-Assessment Team and Working Group was reshaped by Prof John R Helliwell as the School's new Athena SWAN Champion. He firstly appointed External Advisors for this process Prof Katharine Perera, former Pro Vice Chancellor of the University, and who led the successful Bronze Award for the University in 2008, as well as Patrick Johnson the University's Head of Equality and Diversity. These Advisors were provided with our last application paperwork and so that along with the Athena SWAN feedback we received their critical analysis. It was recognised that improvements could be made but that the application narrative had not recognised various aspects of good practice already in place. We then brought together the new Self-Assessment Team. The minutes of their meetings and reports to the School of Chemistry Board can be found at :- <http://www.chemistry.manchester.ac.uk/aboutus/athena/index.html>

We also consulted Prof Philippa Browning of the University's Physics Department 'Schuster Laboratory' and who served as an Athena SWAN Assessment Panel Member in 2010.

John Helliwell attended the Athena SWAN Seminar held in Edinburgh on February 21st 2011 as well as the internal University of Manchester Equality and Diversity shortlisting and interviewing training for experienced staff on March 8th 2011. He also attended the Australian Institute of Physics Congress Annual Conference in Melbourne in December 2010 where he attended the Women in Physics session and championed the Athena SWAN scheme there.

All these activities have helped to shape our submission being made here both in better recognising our School of Chemistry existing strengths but also how we can aim higher to further improve ourselves towards a Gold Award application within the next 3 years or so.

273 words

- c) Plans for the future of the self assessment team, such as how often the team will continue to meet, any reporting mechanisms and in particular how the self assessment team intends to monitor implementation of the action plan.

The Self Assessment Team will continue to meet to monitor progress against the action plan and drive initiatives forward. In addition two members of the Self Assessment Team have also been invited to take part in another School's submission.

39 words

Section 2 comprises 960 words.

3. A picture of the department – maximum 2000 words

- a) Provide a pen-picture of the department to set the context for the application, outlining in particular any significant and relevant features.

The School of Chemistry was formed by the amalgamation of the two Departments of Chemistry from the Victoria University of Manchester (VUM) and UMIST at the creation of the new University of Manchester in 2004. An extension to the chemistry building of the VUM Department of Chemistry was built to accommodate all chemistry teaching laboratory activities and some additional research laboratories allowing for a co-location of the UMIST chemistry staff. Chemical Biology staff are housed in the Manchester Interdisciplinary Biocentre (MIB) newly built at the 'north campus' site. We also have chemistry staff in the new Photon Science Institute (PSI). These three buildings are approximately one kilometre apart. Thus our Self Assessment Team includes School of Chemistry members based in the MIB, the PSI and the Chemistry, extended, main building, giving us a comprehensive viewpoint

In the last ten years the number of female academics has increased to the point where we have females at all levels of the academic staff upto and including Professor (Professor Sabine Flitsch). Furthermore two of our Research Fellows, Dr Claire Eyers and Dr Madeleine Helliwell, were entered into the last RAE. Madeleine, married to John, took a 5 year career break with three children born in that time and then returned to research in 1989 at 50% and then 80% part time thus managing the family aspects of work life balance within a flexible career framework here in the School of Chemistry at the University of Manchester. There are also other chemistry focussed career paths open to academically trained scientists:- Dr Elaine Armstrong is our School's Health and Safety Advisor and Building Superintendent, Dr Ann Fretwell is Senior Research Administrator and Dr Barbara Gore is NMR Technician. Thus we are on a firmly upward trend in our female to male School culture and staffing.

We have heartily committed to Athena SWAN, as evidenced by our successive efforts that led to our first application and now to this reworked application. In addition we are implementing Investors in People principles in order to further improve the quality of our management and have previously introduced a number of initiatives to support that, which have stood us in good stead in terms of identifying best practice for Athena SWAN Silver.

A major feature of these efforts was the Internal staff survey of 2009 and using the results we have further improved our culture so as to encourage the development of female staff (see section 6). This improved culture in fact helps both women and men with caring responsibilities to balance career and home commitments.

Led by our new Head of School, Prof Christopher Whitehead we have achieved a Personal Development Review participation of all academic staff, Research fellows and Experimental Officers. This increased take up allows us to pro-actively monitor and implement family friendly practices. Furthermore all

academic staff have a mentor, which is key to further personnel development and overcomes any gender-related difficulties. Thus mentoring is embedded and a major strategic route to improvement. Also our Athena Swan Champion, Prof John Helliwell, has been a University wide Mentor within the Manchester Gold scheme each year since 2003.

We have also increased our *Staff Induction Training and Welcome to the School* up to ~100% participation; the Head of School with Prof John Helliwell lead these staff inductions. These sessions enable the School to promote initiatives such as Athena SWAN to incoming staff thereby embedding best practice and culture at an early stage. We also have an active New Academics Programme; one of our Self Assessment Team, Dr Claire Evers, for example, recently graduated through this (in 2010). The School's New Academics Programme is also led by Prof John Helliwell, as the School's Senior Mentor, and who also takes part in the University's research staff induction training.

The School comprises 58 academic staff, of which 9 are research fellows and 2 are teaching fellows. There are 34 Experimental and Technical staff, 71 Post-Doctoral Research Staff, 216 PhD and MSc students, 11 students on Post-graduate MSc Taught Courses and 705 undergraduate MChem and/or BSc students.

The School Board meetings take place 3 times per annum and are attended by all categories of staff in the School; it is the central forum for the School to receive and discuss reports from the Head of School, the Directors of Teaching and of Research as well as the Athena SWAN Champion. This Board also takes reports from the Dean of the Faculty of Engineering and Physical Sciences as appropriate. It is Chaired by an academic elected by the Board Members. The School Board now invites PostDocs and they have a voting representative.

840 words.

- b) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.
- (i) **Numbers of males and females on access or foundation courses** – comment on the data and describe any initiatives taken to attract women to the courses.

Foundation courses for Chemistry are administered by the Faculty although we do provide tuition. Consequently we have no input to the admissions' process; once they have successfully completed that course they will automatically enter Chemistry. We also provide support to our University widening participation office, who is actively working to encourage a diverse range of students onto these courses.

59 words

- (ii) **Undergraduate male and female numbers** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the impact to date. Comment upon any plans for the future.

Our undergraduate statistics by gender, compared with our Faculty of Engineering and Physical Sciences (EPS) and with the National statistics, are represented in Figure 1 as percentages and/or absolute numbers below:-

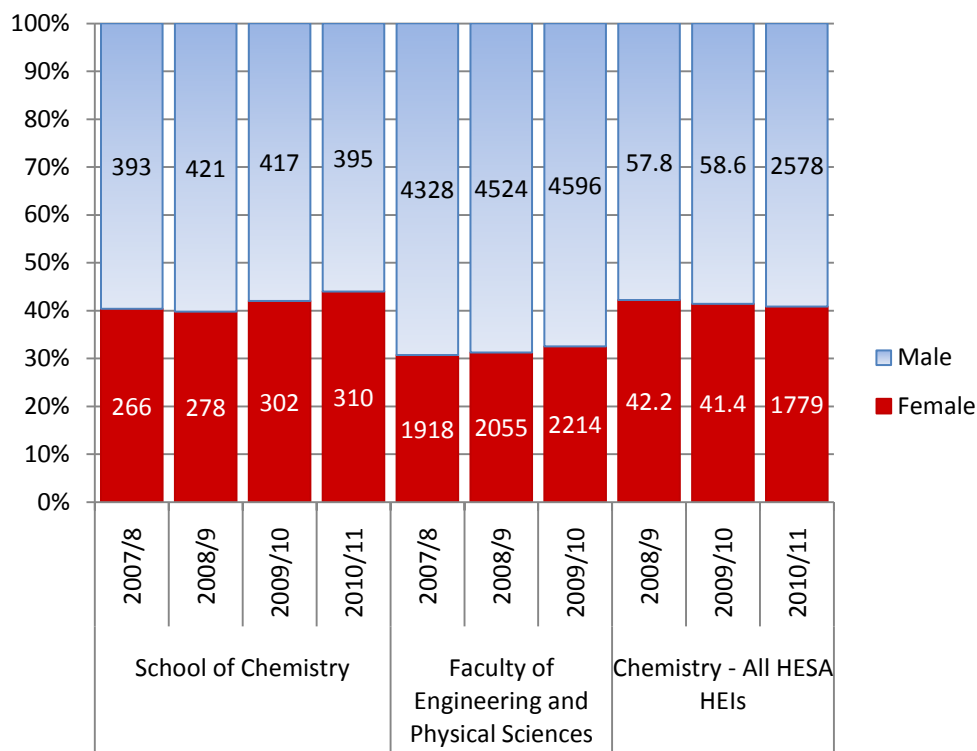


Figure 1 – Undergraduate statistics by gender for the School of Chemistry compared to the Faculty of Engineering and Physical Sciences at the University of Manchester and Chemistry at other HEIs. [for 2008 to 2010 overall UK data expressed as a percentage split.]

Our School compares favourably for female undergraduate numbers with respect to both our EPS Faculty overall and to Chemistry degree acceptance across the UK. There is the chance that we can improve nevertheless. Thus our Action Plan includes steps towards this. Our outreach programme, although already quite excellent, can benefit from Dr Cinzia Casiraghi's experiences in Germany at the University of Berlin, Physics Dept with female only school events; Cinzia is a member of our Self-Assessment Team. Our UCAS interviewing can also increase female interviewing participation, including female Research Fellows.

With regard to undergraduate admissions, we would make two particular comments:-

Firstly, we ensure that on UCAS visit days our student guides for all prospective students are gender balanced.

Secondly, the extensive School's outreach programme (Dr Sarah Heath and Dr Frank Mair) reaches ~8000 school pupils and parents per annum notably with the 'Flash Bang Show'. Within outreach Dr Heath has undoubtedly been an important role model in this time-period for female UCAS applicants, not only to our applicants but stimulating all Universities Female applications. Added to this is the work undertaken with UCAS interviewing by Prof Sabine Flitsch, Dr Sarah Heath and Dr Claire Eysers in ensuring a very healthy Female/Male undergraduates' balance.

277 words

- (iii) **Postgraduate male and female numbers completing taught courses** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

Our PGT numbers are small as we have just this year launched a new PGT Course on training in chemical methods. The Female to Male split on this new Course is approximately 45%/55% across a total of 11 students (Figure 2).

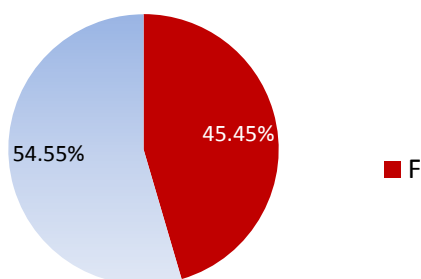


Figure 2 – Ratio of females: males on postgraduate taught degrees (2010 census).

53 words

- (iv) **Postgraduate male and female numbers on research degrees** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

School of Chemistry numbers for postgraduate research degrees are represented in Figure 3 below :-

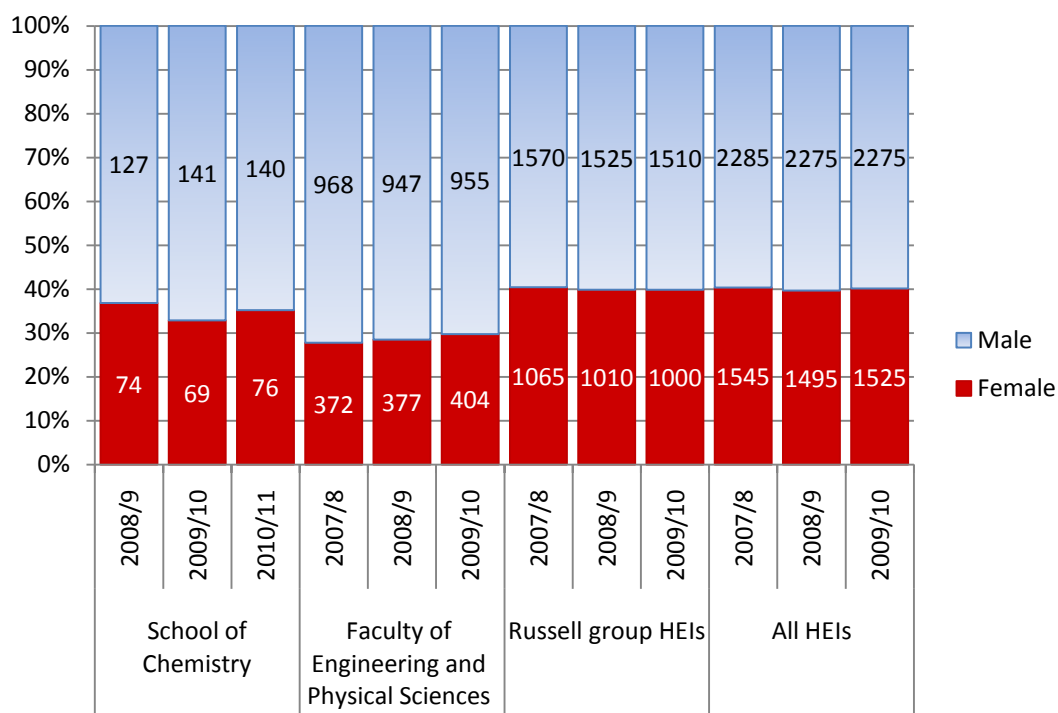


Figure 3 – Ratios of females: males on postgraduate research degrees.

While the female:male ratio for postgraduate students on research degrees is slightly lower than the national average, it is more balanced than the numbers across our Faculty of Engineering and Physical Sciences. In an attempt to rectify this imbalance, our female members of academic staff in particular will talk to undergraduate students about the benefits of undertaking a postgraduate research degree, thus acting as positive role models for the prospective female postgraduate students. The female academic staff are also involved in running both undergraduate group projects and postgraduate MChem research projects.

116 words

- (v) **Ratio of course applications to offers and acceptances by gender for undergraduate, postgraduate taught and postgraduate research degrees** – comment on the differences between male and female application and success rates and describe any initiatives taken to address any imbalance and their effect to date. Comment upon any plans for the future.

The undergraduate UCAS applications Female to Male percentages and admissions for the School of Chemistry at the University of Manchester versus the national statistical data are closely matched at just above 40% Female (Figure 4). We are pleased to report that the percentage of females accepting places on our courses (Figure 1) is steadily rising. As mentioned above though, there is the chance that we can improve nevertheless. Thus our Action Plan includes steps towards this.

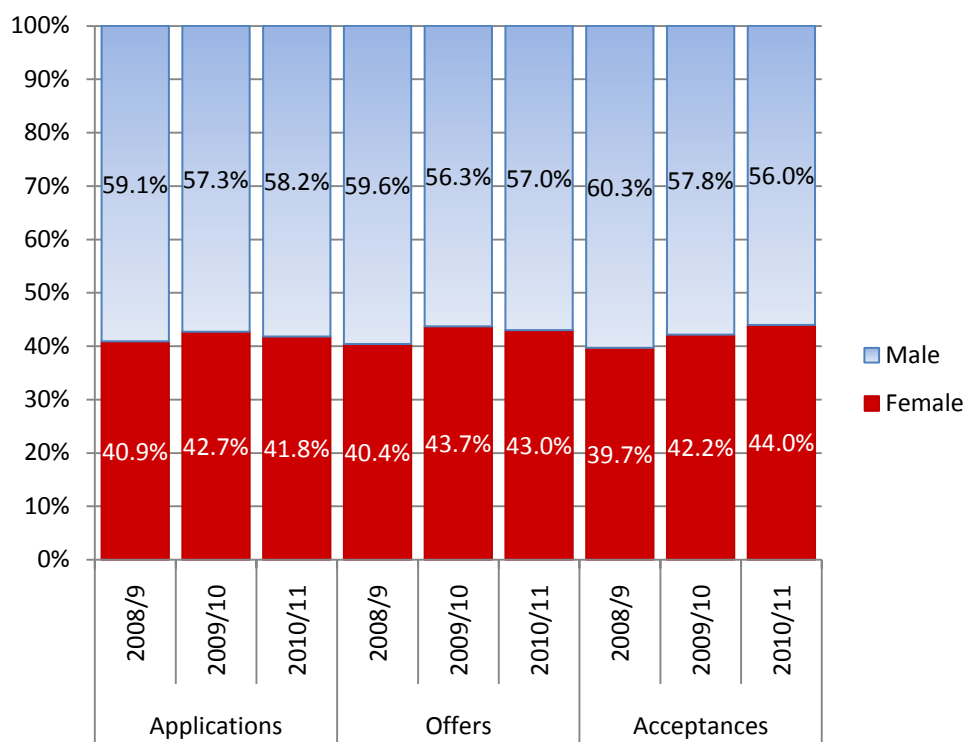


Figure 4 – Gender percentages' splits for UCAS applications, offers and acceptances of places for undergraduate degrees.

For postgraduate taught courses we have presently very low numbers as remarked above (Figure 2) and analysis is not statistically meaningful. Where we do run such courses eg MSc in Chemical Methods there is currently a high % of Middle Eastern countries' participation where other issues also might come into play. However the percentage of women is very good at ~45% (Figure 2).

For PhDs (Figure 5) our efforts are 'unregulated' admissions ie there is no positive action Female vs Male attempted. We need more targeted work, which is in our Action Plan. Specifically we outline the following positive action steps: Interview panels to always feature a female academic alongside the potential supervisor; Female academic staff to specifically encourage female undergraduate students to consider undertaking a postgraduate research degree; An annual workshop on the benefits of undertaking a PhD and long-term career prospects; Also in collaboration with the PostDocs Forum, we will initiate a mentoring scheme for Year 3 and Year 4 female undergraduate students. Clearly year by year numbers are vulnerable to the statistics of small numbers, nevertheless the School Management Committee actively monitoring these statistics and actions in future is further step forward. Overall, as identified in our Action Plan, we can look for success in improving upon our current position.

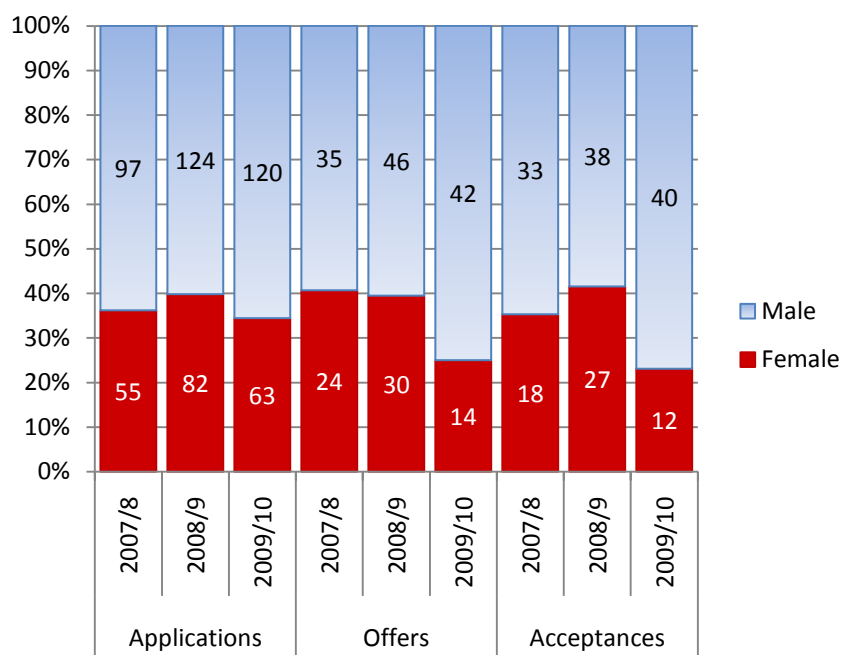


Figure 5 – Gender numbers and percentages' splits for applications, offers and acceptances of places for postgraduate research degrees.

324 words

- (vi) **Degree classification by gender** – comment on any differences in degree attainment between males and females and describe what actions are being taken to address any imbalance.

Female: male percentage splits for degree classification for both the undergraduate BSc (Figure 6) and MChem (Figure 7) courses are shown below:

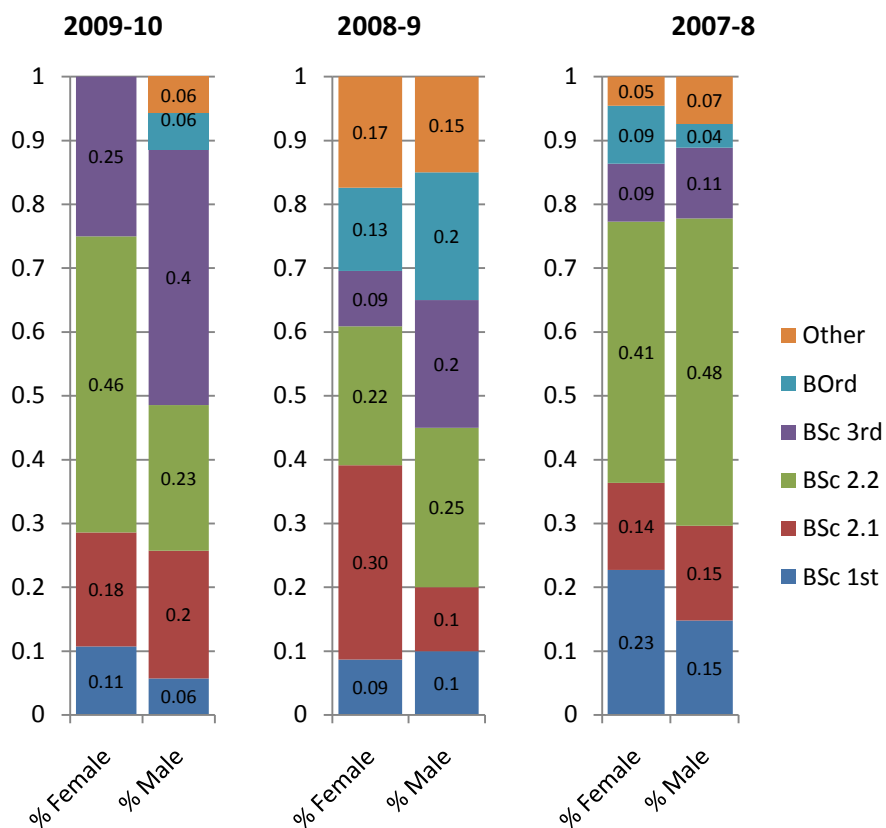


Figure 6 – Classification of BSc degrees by gender

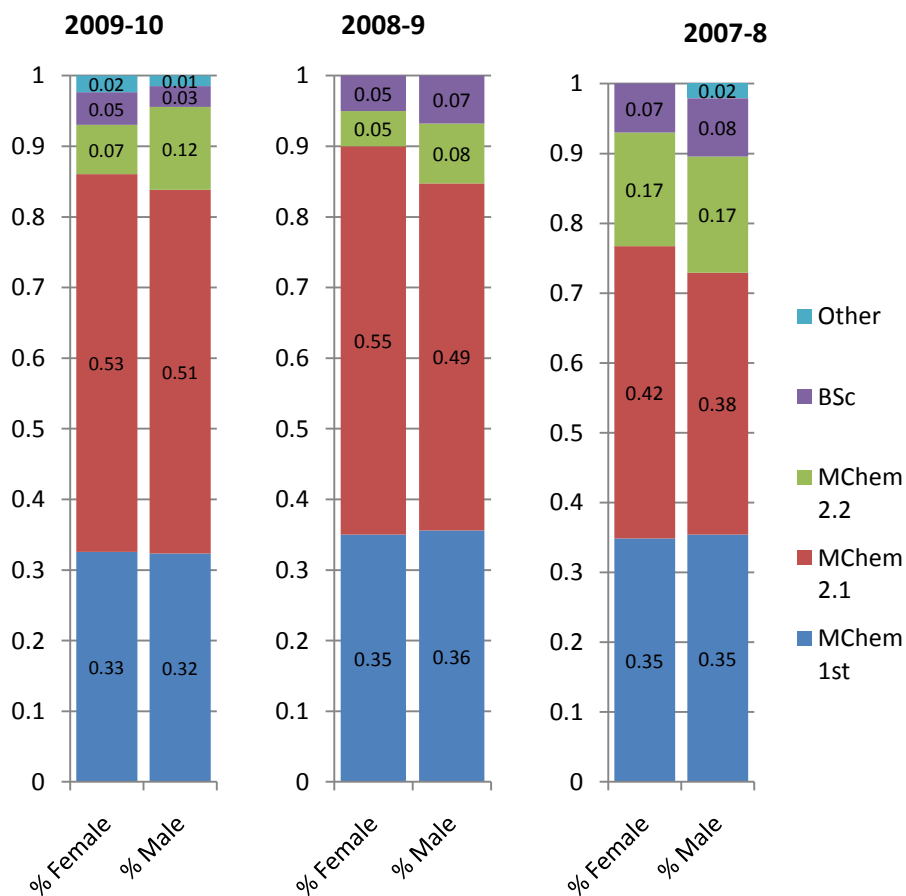


Figure 7 – Classification of MChem degrees by gender

Female students have typically performed better than their male colleagues over the last three years cohorts at the undergraduate level (Figures 6 and 7). While the percentage of First class honours degrees was almost equal between males and females for the MChem students (Figure 7), female students on the BSc courses were significantly better in the graduating classes of both 2008 and 2010 (Figure 6). Overall more upper second class honours (or higher) were awarded to females on all undergraduate courses.

To ensure that these statistics are maintained, there is a University wide working group investigating differences in degree attainment by equality group and we will feed into this work and consider any recommendations made.

153 words

- (vii) **Female:male ratio of academic staff and research staff** – researcher, lecturer, senior lecturer, reader, professor (or equivalent). comment on any differences in numbers between males and females and say what action is being taken to address any underrepresentation at particular grades/levels

The picture for the School of Chemistry University of Manchester is shown in Figure 8:-

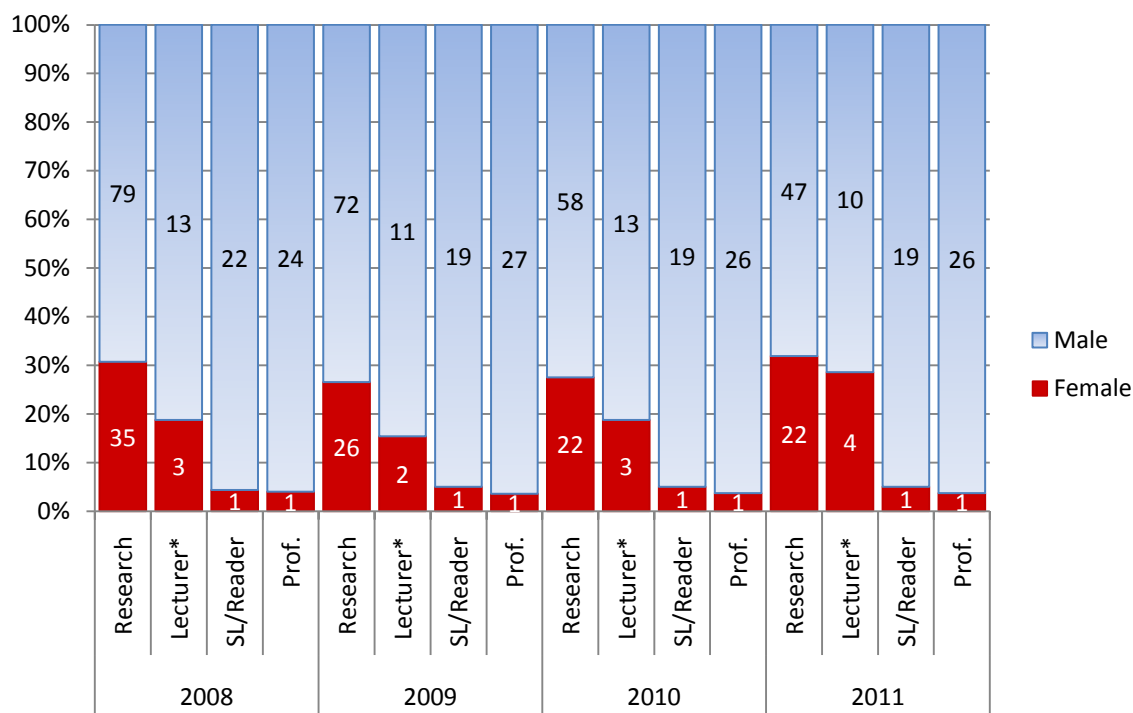


Figure 8 – Female:male absolute numbers and percentages' splits of academic and research staff for the School of Chemistry. * Lecturer or equivalent.

The whole of UK University picture for Chemistry staff is here:-

Grade	% Female Staff					
	All Institutions		Pre-1992 Universities		Post-1992 Universities	
	02/03	06/07	02/03	06/07	02/03	06/07
Professor	4%	6%	4%	5%	7%	18%
Senior Lecturer	10%	14%	8%	11%	24%	25%
Lecturer	18%	26%	17%	25%	21%	28%
Researcher	28%	30%	28%	30%	34%	43%
Other staff	27%	33%	25%	31%	34%	37%
All	21%	24%	21%	23%	25%	31%

Table 1 Overall percentages of female staff by grade in chemistry in UK HEIs.

The School shows a below average set of percentages compared with the whole of the UK data for Female to Male ratios. However, our situation is on a firmly upward trajectory, without any of our proposed positive action strategies yet in place (see below):-

- As a start point of 1989, i.e. since detailed information is available, there were zero Female permanent academic staff, which continued until 2001, when Dr Sarah Heath was appointed Lecturer (now Reader), and then in 2003 Prof Sabine Flitsch was appointed Professor. In 2007 Dr Claire Eysers was appointed Royal Society Dorothy Hodgkin Fellow (and passed the New Academics Programme 'NAP' in 2010); from 2012 she will also be underwritten as a Lecturer in the School. Dr Louise Natrajan was appointed EPSRC Career Acceleration Fellow in 2009 and will also be underwritten by the School at the end of her Fellowship, and in 2010 Dr Cinzia Casiraghi was appointed Lecturer.

The University of Manchester's Faculty of EPS's Faculty Diversity strategy is to reach an:- *"Achievement of a staff profile that is representative at each level of occupational grouping, as measured against appropriate benchmarks and seeks to improve this further on a more active basis."* The School therefore works actively with the EPS Faculty Human Resources Team to realise these aims and together we have succeeded in reaching a much improved gender balance situation from 2000 onwards and we will actively continue this process.

300 words

- (viii) **Turnover by grade and gender** – comment on any differences between men and women in turnover and say what is being done to address this. Where the number of staff leaving is small, comment on the reasons why particular individuals left.

These data are shown below:-

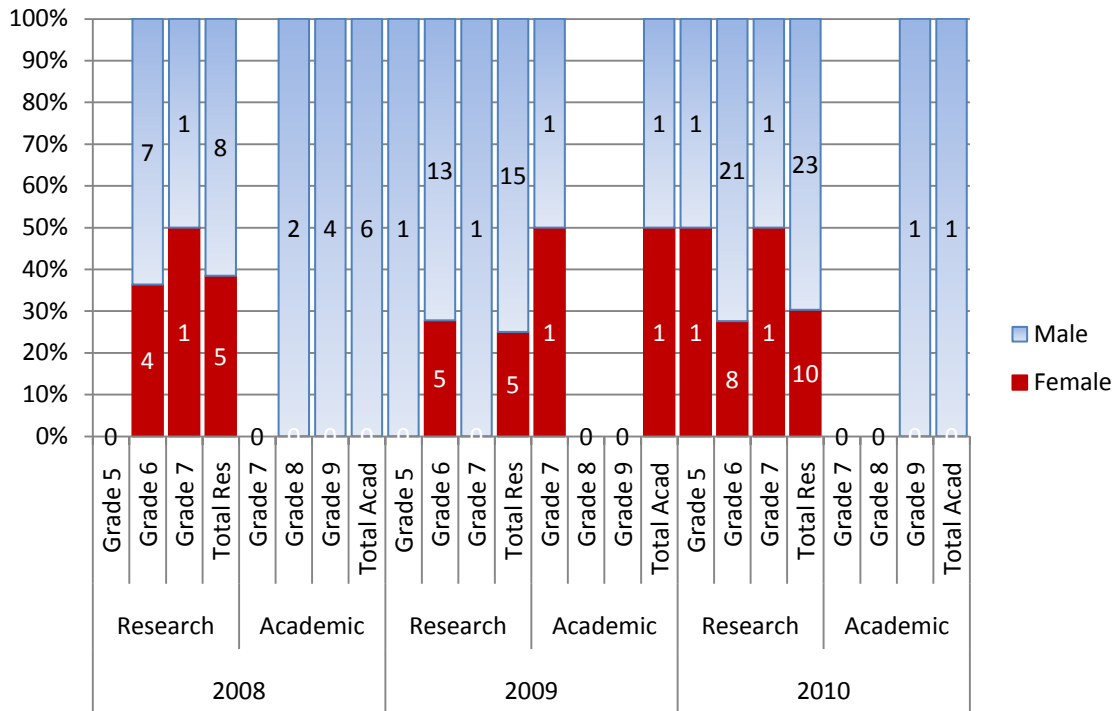


Figure 9 – Gender absolute numbers and percentages' splits of people starting in the School according to grade

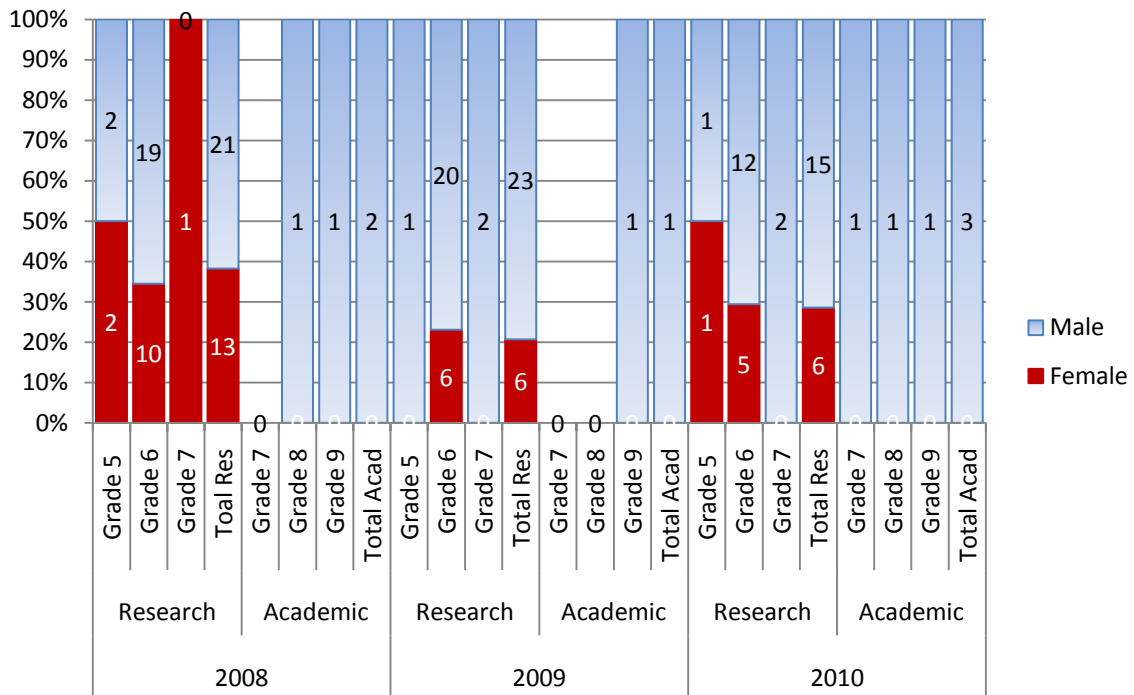


Figure 10 – Gender ratios of people leaving the School according to grade

It is difficult given the statistics of small numbers to draw firm conclusions. On an individual case basis we commend to Athena Swan that an EPSRC Postdoctoral Research Fellow at the Life Science interface (S. Hart, Grade 6) with the School enjoyed career advancement to take up a Lectureship at the University of Keele in 2009. There are also no exits in circumstances involving females seeking redress against the School.

104 words.

Section 3 words total 1998

Supporting and advancing women's careers – maximum 5000 words

4. Key career transition points

- a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

Progression from postdoctoral researcher/Fellowship onto a tenured academic position is perhaps the most difficult transition to achieve in the present economic climate. Our School's Postdoc Forum was established in 2009 and is run in conjunction with the Faculty's Researcher Development Officers and supported by "Roberts" funding. The Forum provides a range of support initiatives, including talks from current Fellows on their experiences of the transition into an independent academic post, CV clinics and talks from previous postdoctoral researchers who have moved into different scientific careers. Female staff in particular appreciate the opportunity to meet with other colleagues to create a support network, as evidenced by feedback to the Forum Chair (Dr Susannah Coote). In addition, female staff have been more proactive in taking the opportunity to contact speakers after Forum events for further information/advice, thus the Forum offers female staff in particular an extra support opportunity that was not previously available.

The Forum organisers are now establishing a new initiative that will allow early career researchers to set up short appointments with experienced staff (both academic staff and those working in non-academic careers) in order to gain tailored advice on, for example, CVs or research proposals. This will allow researchers a unique opportunity to obtain advice from someone other than their direct supervisor, in order to identify areas for improvement at an early stage in their postdoctoral contract.

228 words

- (i) **Job application and success rates by gender and grade** – comment on any differences in recruitment between men and women at any level and say what action is being taken to address this.

Data for the gender ratio of applicants, candidates shortlisted and successful for positions in the School are represented in Figures 11 and 12 below:

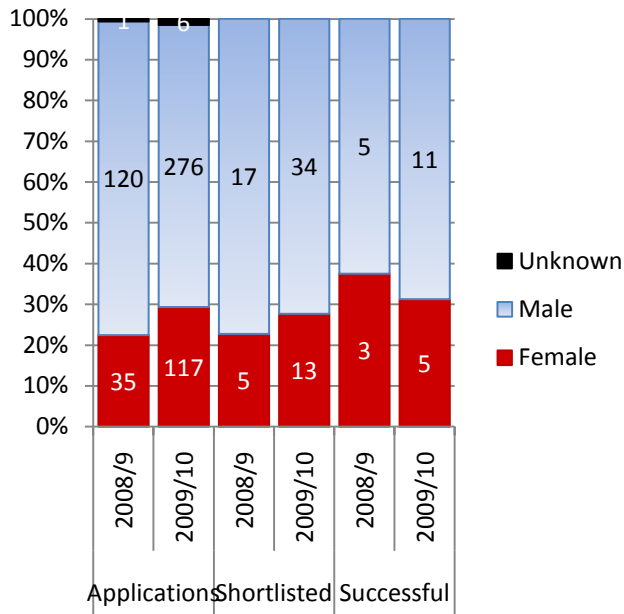


Figure 11 - Job application and success rates by gender

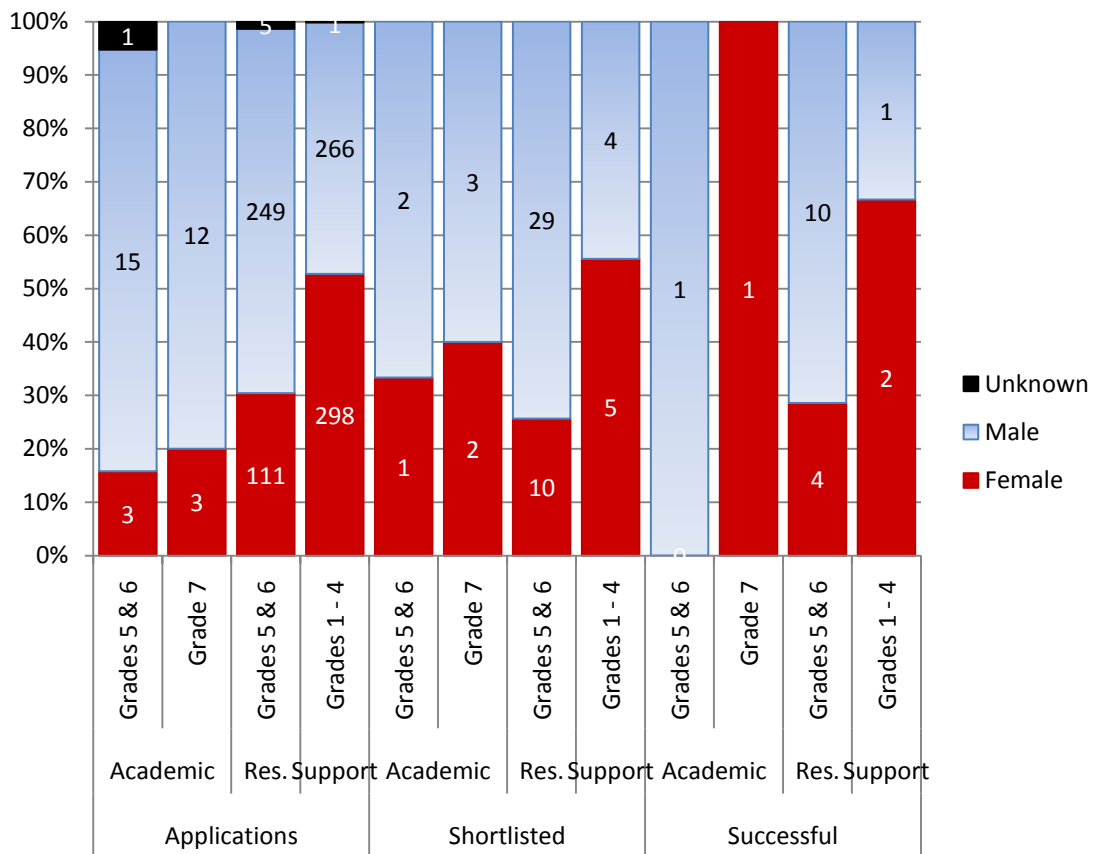


Figure 12 - Job application and success rates according to gender and grade for 2009/10. Res. – research; Support – support staff.

The number of applications from females has increased proportionally between the two years for which data are available. Success rates on appointment show an increased number for women which suggests that

internal selection processes are being conducted effectively. The statistics are small, and working with HR, we are considering the use of positive action statements to further increase the proportion of female applicants and are also submitting School staff for the new (2010) University mandatory training course for selection and interviewing.

135 words

- (ii) **Applications for promotion and success rates by gender and grade** – comment on whether these differ for men and women and if they do explain what action may be taken. Where the number of women is small applicants may comment on specific examples of where women have been through the promotion process. Explain how potential candidates are identified.

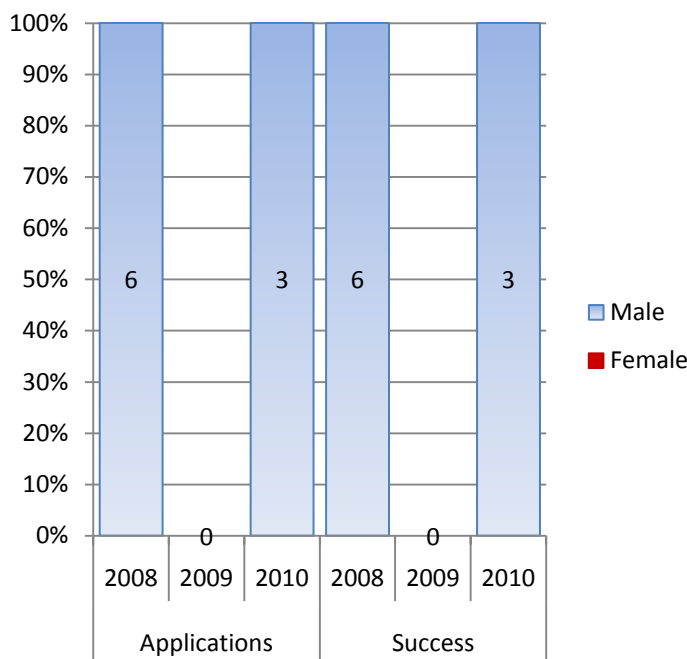


Figure 13 - Success rates for promotion by gender

Academic staff promotion success rates in recent years are 100% successful following filtering at the School level (data not available for all years), indicating that the School only puts forward those cases which are robust. 2008 saw the promotion of 3 Readers to Prof., one Senior Lecturer to Reader and two Lecturers to Senior Lecturer. In 2010, one Reader was promoted to Prof. and two Lecturers to Senior Lecturers.

No female staff members have applied for promotion in the last three years, although Dr. S Heath was promoted from Senior Lecturer to Reader in 2007. No other female members of staff are currently at a stage in their career that deems them ready for promotion, although two (Dr. Caire Evers and Dr. Louise Natrajan) will be appointed as Lecturers at the end of their Fellowships, demonstrating career progression.

Promotion figures for women are scrutinised as a high priority at the Faculty's Operational Performance Review with the University's senior management. An

action plan is developed with the Faculty to look at how we can increase the number of women applying and gaining successful promotion. Such scrutiny has led to the introduction of an 'Academic Promotions Master Class' which has now been running successfully for the past three years. The Master Class is advertised with a positive action statement that is designed to encourage women to consider applying for promotion, and seeks to provide support and advice to staff throughout the promotions round, and the School actively support female (and male) staff to attend the session.

263 words

- b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.
- (i) **Recruitment of staff** – comment on how the department's recruitment processes ensure that female candidates are attracted to apply, and how the department ensures its short listing, selection processes and criteria comply with the university's equal opportunities policies

Our recruitment is done according to University guidance and regulations, and we are inherently committed to recruiting the best possible candidate for every post whilst ensuring that line managers are aware via mandatory as well as optional training, of both positive and negative discrimination issues. There a number of checks built in to the process by our Faculty Human Resources Department to ensure equality of opportunity. These include recording of applicants and appointments, equal opportunities' monitoring and the provision of short listing and interviewing proformas. This data is submitted and reported annually at the Faculty Operational Performance Review (OPR).

We have initiated the inclusion of a positive action statement on our recruitment adverts which clearly states that the School are keen to encourage applications from women and that the School is committed to wanting to attract and progress the careers of women. The wording we have chosen is:-

"The School is committed to Athena SWAN principles to promote women in science; the School's website documenting activity in this area can be found at: <http://www.chemistry.manchester.ac.uk/aboutus/athena/index.html>.

We positively welcome applications from women, who are currently under-represented at this grade. Appointment will be made on merit".

We also include links to the University's family friendly policies. We also encourage academic members of staff to identify potential female candidates from conferences/events and encourage them to apply when vacancies become available.

All staff leading recruitment and selection are required to have attended University Training in Equality and Diversity Issues and a further initiative means that mandatory training in Shortlisting and Interviewing has also been introduced; the School keeps a record of those who have attended.

270 words

- (ii) **Support for staff at key career transition points** – having identified key areas of attrition of female staff in the department, comment on any interventions, programmes and activities that support women at the crucial stages, such as personal development training, opportunities for networking, mentoring programmes and leadership training. Identify which have been found to work best at the different career stages.

One of the most challenging career progression points is the move from a fixed term Fellowship to a tenured academic post. Research Councils insist on the applicant having guaranteed employment for the duration of grants sought and the Faculty of Engineering and Physical Sciences, which includes the School of Chemistry, will write such a letter of support under circumstances where an appropriate proportion of the Fellow's salary is covered. This is a key and pro-active step that we make. A further aspect is to provide a constructive career development framework. Thus our Research Fellows are fully registered on the University's New Academics Programme, alongside new lecturers, with its Faculty training modules, as well as having teaching assignments in the School, which are formally assessed, and finally submitting a New Academics Programme Reflective Portfolio. This training programme is widely appreciated and respected by the participants, by the School's Senior Mentor and the Faculty officers including the Associate Dean for Teaching and Learning as well as the Schools. Overall our New Academics Programme we firmly believe is a key requirement and best possible preparation for an academic career. The School's excellent take up rate for Performance and Development Review also facilitates the opportunity for an annual meaningful discussion about strategies for successfully achieving transition. Whilst these initiatives benefit all staff in the School, anecdotal evidence suggests that they have led to the culture change in the School that women in particular find welcoming (see case study 1, Dr Sarah Heath, below).

249 words

5. Career development

- a) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.
- (i) **Promotion and career development** – comment on the appraisal and career development process, and promotion criteria and whether these take into consideration responsibilities for teaching, research, administration, pastoral work and outreach work; is quality of work emphasised over quantity of work?

Academic staff are notified each year that their grading review will be taking place (professorial staff every two years) and advising them what to do should they

wish to apply for promotion. Promotion for research staff is possible; research assistants are automatically promoted from grade five to six on completion of their PhD.

Progression from Fellowship onto a tenured academic position is perhaps the most challenging transition to achieve in the present economic climate. Our Postdocs Forum, run in conjunction with the Faculty and supported by “Roberts” funding, provides a range of support initiatives including talks from Fellows, previous PDRAs who have moved into other careers, CV clinics and recruitment fairs. These efforts are proactive steps that we have taken.

Performance and Development Reviews (PDRs) are not directly related to grades or promotions, although evidence from PDRs may be used in support of an application. PDRs do cover teaching, research, administration, pastoral work and outreach work. Yes indeed quality of work is very much recognised but it is difficult to be definitive over 'quality versus quantity' criteria and/or policing their application.

181 words

- (ii) **Induction and training** – describe the support provided to new staff at all levels, as well as details of any gender equality training. To what extent are good employment practices in the institution, such as opportunities for networking, the flexible working policy, and professional and personal development opportunities promoted to staff from the outset?

New staff receive a formal staff induction to the School and, for PostDocs, at a second, i.e. separate, University event. Our own event includes very practical details of key staff contacts in the School, a history of the School and its resourcing and income streams. In addition the University's Staff Training and Development Unit activities are highlighted as well as the Manchester Gold Mentoring Scheme. This latter is supplemented by the EPS Faculty Mentoring sponsored lunches. The annual Personal Development Review is now comprehensively implemented.

New academics receive a formalised training and constructive development working environment within the New Academics Programme framework which has formal modules run by the Faculty of Engineering and Physical Sciences and a Mentoring scheme within the School. This is coordinated by the School Senior Mentor and who meets each new academic at least annually. The New Academics meet their Mentors at least quarterly. In addition the Senior Mentors for the Faculty meet at least annually to review best practice in the Faculty. The School website has specific links to useful induction material that signposts specific policies, e.g. flexible working, career development information and research. See:-

<http://www.chemistry.manchester.ac.uk/aboutus/athena/>

and

<http://www.researchsupport.manchester.ac.uk/ContactsAndSupprt/Training/Stdu.aspx>

Within the framework of the University's Equality and Diversity policy specific training is provided. Thus, for example, the Athena SWAN Champion Prof John Helliwell attended the 'Shortlist and Interviewing for experienced staff' training event. All staff are required to attend the core training on this before they can select and appoint staff.

We also give a Health and Safety Induction, led by our Health and Safety Advisor, Dr Elaine Armstrong, which is compulsory for all staff and students and who are assessed on their understanding before they are permitted to start laboratory work.

286 words.

- (iii) **Support for female students** – describe the support (formal and informal) provided for female students to enable them to make the transition to a sustainable academic career, particularly from postgraduate to researcher, such as mentoring, seminars and pastoral support and the right to request a female personal tutor. Comment on whether these activities are run by female staff and how this work is formally recognised by the department.

WiSET (Women in Science, Engineering and Technology) is a network for all female students, research and academic staff organised for the School of Chemistry through the Faculty of Engineering and Physical Sciences. The student coordinator for Chemistry liaises with Faculty staff to organise events such as skills workshops, debates, industrial site visits and social networking.

See:- <http://www.wiset.eps.manchester.ac.uk/index.html>

We can still try to improve and so, in collaboration with the PostDocs Forum, we will seek to ensure that the School of Chemistry seminar programme has an improved gender balance. Along with this we will aim to have at least two opportunities per year for female UGs, PGS, and PDRAs to have extended discussions with visiting speakers.

115 words

6. Organisation and culture

- a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.
- (i) **Male and female representation on committees** – provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified.

We summarise our current data in Figure 14:-

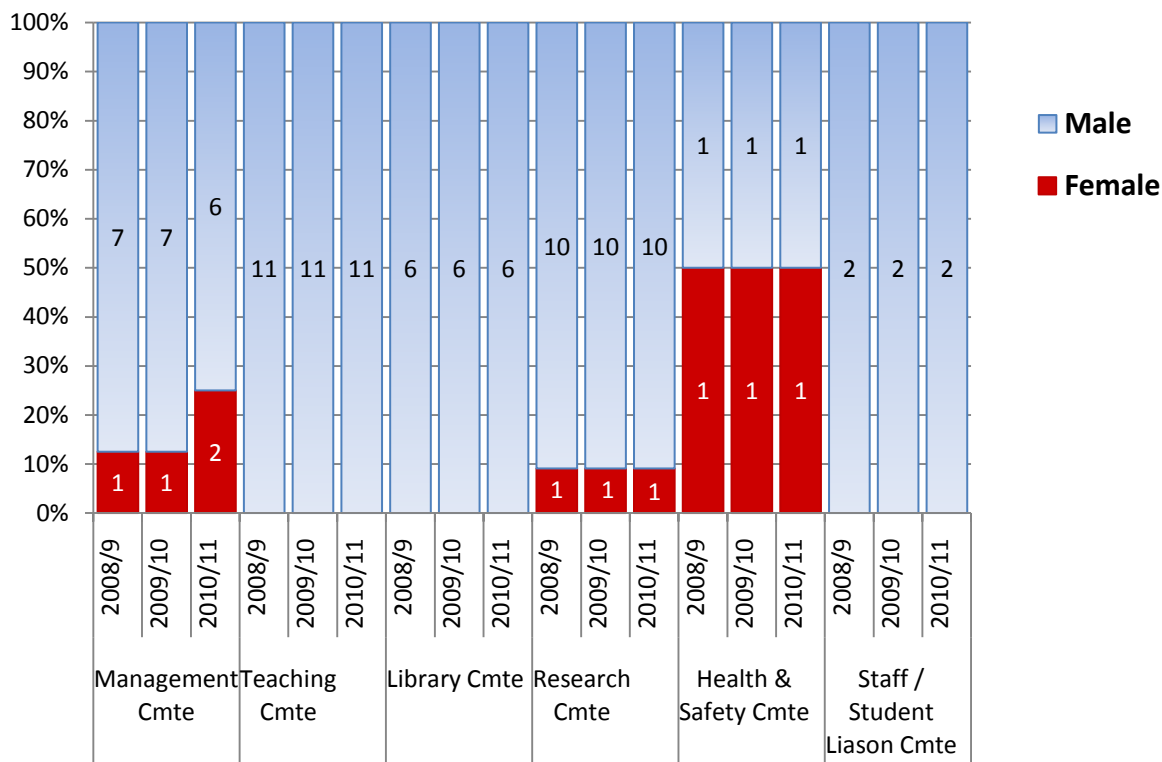


Figure 14 – Gender ratios by absolute numbers and percentages' splits for staff on our School Committees.

The key resource determining Committee comprises 25% female membership – Professor Sabine Flitsch and Dr Elaine Armstrong. An additional female member is the Head of School Administration – Nicky Snook – who has a vote, making a total of 9 committee members, 3 of them being female. We have explicitly separated Administration from qualified Chemist female staff for the purposes of this return.

In addition to the above we wish to cite the MIB Council on which Dr Claire Eysers, a member of our Self Assessment Team, serves.

In addition the School Board is open to all staff. Voting at the School Board, albeit a rare occurrence, does have a formal procedure and is limited to academic and related staff plus an elected member of research staff.

Reflection on the statistics provided has led us to conclude that positive action strategies will be employed to encourage representation from women in due course. However, we are mindful of the potential for overloading particular female staff with School administrative duties with the possible consequence of distracting them from their other work.

200 words

- (ii) **Female:male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts** – comment on any

differences between male and female staff representation on fixed-term contracts and say what is being done to address them.

Figure 15 below compares these categories of staff. Please note that the Career Development Fellows, Dr Claire Eyers and Dr Louise Natrajan, are confirmed that they will transition from fixed term to permanent in 2012 but at present in Figure 15 they show in the fixed term part of the histogram. New lecturer Dr Cinzia Casiraghi also does not feature in figure 15. Prof Sabine Flitsch and Dr Sarah Heath do feature in Figure 15. The Research Fellow permanent category includes in each year Dr Madeleine Helliwell.

The percentage splits for the fixed term research staff match the student percentage splits quite well whereas the permanent academic and research staff do not. As explained in detail elsewhere in this document this indicates that the transition to permanent academic and/or research posts is a most difficult hurdle. Thus our measures to improve as a School with gender balance include pro active implementation of our Staff Inductions, PostDocs Forum, the WiSET scheme, Mentoring and Personal Development Reviews with proper attention to promote equality and diversity, as well as joining relevant Faculty and University training modules in equality and diversity and enthusiastically adopting Athena Swan principles.

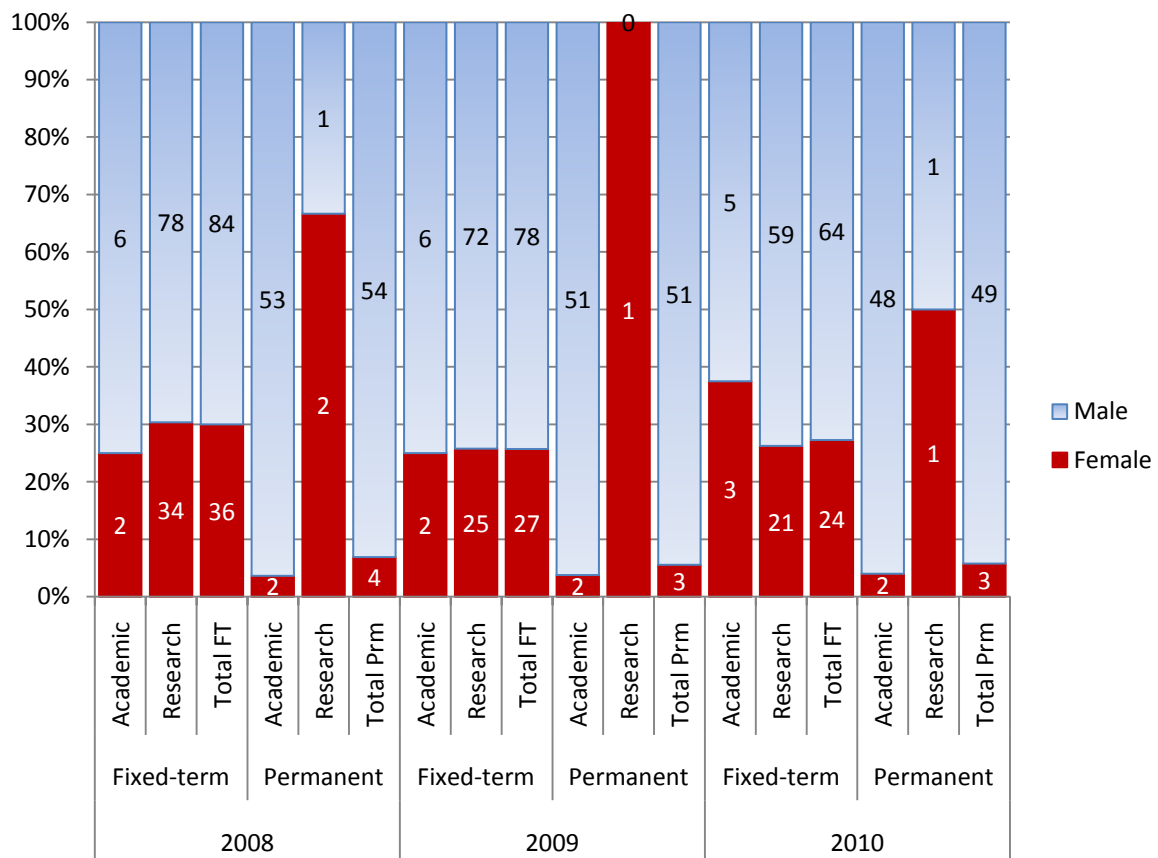


Figure 15 - Gender ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts

210 words

b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

(i) **Representation on decision-making committees** – comment on evidence of gender equality in the mechanism for selecting representatives. What evidence is there that women are encouraged to sit on a range of influential committees inside and outside the department? How is the issue of ‘committee overload’ addressed where there are small numbers of female staff?

The School Management Team advises the Head of School and is the highest of the School Committees; the female to male membership is shown here (Figure 16):-

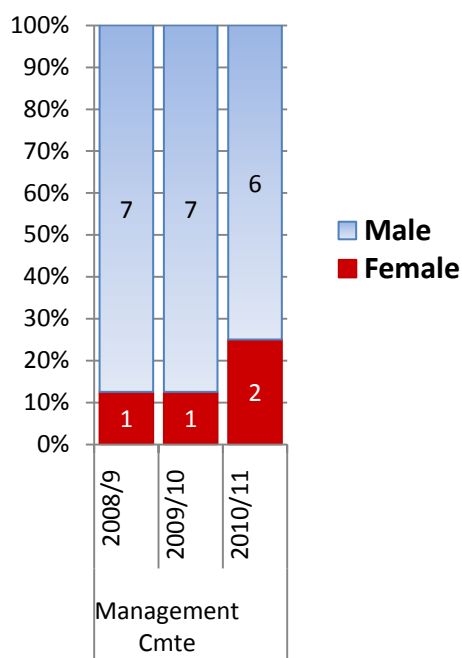


Figure 16 – Gender ratios on the School Management Committee

We have achieved a 25% female representation for 2010/2011.

The School is aware of the many demands on academic staff time, particularly so for female academics. The School actively supports its female academics in their national and international committee commitments, sometimes at the expense of School of Chemistry Committees. That said it is now identified that the School should more pro-actively seek a better gender balance on its own Committees. The Self Assessment Team Members include Prof Sabine Flitsch and Dr Sarah Heath who provide documentation of these individuals' public service work, and which the School supported pro-actively i.e. by agreeing to their absences from the School to service their commitments properly and effectively.

150 words

- (ii) **Workload model** – describe the systems in place to ensure that workload allocations, including pastoral and administrative responsibilities (including the responsibility for work on women and science) are taken into account at appraisal and in promotion criteria.

The workload model takes account of the following activities: lectures, workshops, projects, tuition, demonstrating, postgraduate students, number of PDRAs supervised, citations (H-index), research income as Principal Investigator (PI) and Co-Investigator (CoI), external income generated and administrative duties.

37 words

Comment on the rotation of responsibilities e.g. responsibilities with a heavy workload and those that are seen as good for an individual's career.

For specific periods e.g. during the preparation of large grant proposals regular workloads are reduced to enable academics to focus on writing a successful application.

15 words

- (iii) **Timing of departmental meetings and social gatherings** – provide evidence of consideration for those with family responsibilities, for example what the department considers to be core hours and whether there is a more flexible system in place.

Since recognising the Athena SWAN principles three years ago we have improved our culture so as to encourage the development of female staff, for example holding meetings well within core hours (i.e. 9am to 5pm) and wherever possible School colloquia likewise (subject to visiting lecturer travel needs).

42 words

- (iv) **Culture** – demonstrate how the department is female-friendly and inclusive. 'Culture' refers to the language, behaviours and other informal interactions that characterise the atmosphere of the department, and includes all staff and students.

We are pleased to be able to cite the following to document an improving gender friendly culture:-

The School Board, being a forum for all staff, has always proactively helped achieve an inclusive environment.

Our Post Docs Forum was established in 2009; this is Chaired by Dr Susannah Coote, one of our Athena SWAN Self Assessment Team Members.

Our Athena SWAN website documents academic staff case studies highlighting family friendly practices and carries minutes of our Self Assessment Team Meetings and reports to the School Board.

Our Meetings and lectures are now in core hours i.e. including start and finish times.

There is sensitive structuring of work around family caring requirements – e.g. School colloquia and delivery of lectures

Mentoring and Personal Development Reviews are embedded in the School culture – notable via the New Academics Programme in a formal way, and in addition provision for mentoring of Postdocs at School and Faculty level – which in detail allow female specific issues to be raised and addressed.

We have the WiSET (Women in Science, Engineering and Technology) initiative and within which we are pleased as a School to participate.

We use equality and diversity inclusive images in our School literature such as prospectuses and our website.

Our recent staff survey questions allowed for equality and diversity feedback. This survey was instigated when the School adopted Athena Swan principles over three years ago. The new buildings programme for the School has yielded increased provision of female toilets across the building, which is appreciated by female staff as evidenced by the Survey responses.

Throughout this document we have described a variety of gender and family friendly examples at all stages of female careers. These included the impact of the PostDocs Forum on females with respect to networking (described by Dr Susannah Coote, Chair of the Forum), sensitive scheduling of work commitments such as lectures to take account of child care requirements (Dr Sarah Heath, Reader in Inorganic Chemistry), part time working at variable percentages (50% through to 80%; Dr Madeleine Helliwell, Permanent Research Fellow), and of course the six case studies can now be found at our School's Athena Swan website:- <http://www.chemistry.manchester.ac.uk/aboutus/athena/> as well as the two case studies below provided in this application.

369 words

- (v) **Outreach activities** – comment on the level of participation by female and male staff in outreach activities with schools and colleges and other centres. Describe who the programmes are aimed at, and how this activity is formally recognised as part of the workload model and in appraisal and promotion processes.

The School has a vibrant and extensive Outreach programme each year directly impacting on some 8,000 school children from Year 3 onwards. Regular Flash Bang shows held both in the building and at local schools are our flagship event to attract students to Chemistry during their formative years. In addition we hold

regular “hands on” chemistry classes in our laboratories and subject specific lectures for older pupils. We also host summer camps for Salters and one day events for local schools so as to engage with students at an early age. Dr Sarah Heath, Reader in Inorganic Chemistry, has taken part enthusiastically and very actively in these activities. Dr Claire Evers, Director of the Michael Barber Centre for Mass Spectrometry, has also acted as a consultant for some of the displays at the recently remodelled Manchester Museum of Science and Industry, part of which required her to provide an oral history as a female scientist. Prof John Helliwell has also been interviewed for the Museum for one of its scientific exhibits featuring synchrotron radiation and crystallography and its evolution in the last 40 years.

We especially wish to highlight the outstanding work of Dr Sarah Heath with Outreach. Sarah describes her work on this and as an academic in our School Case Study 1 below.

Most recently Dr Katayune Presland has now been appointed by the School as an RSC Outreach Fellow to go into Schools; there are only 4 such Fellows in the whole of the UK. Dr Christie Turner, Head of Chemistry at West Houghton High School will join us as a Teacher Fellow for 2011/2 working and advising us on the school-university transition.

266 words

7. Flexibility and managing career breaks

- a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

- (i) **Maternity return rate** – comment on whether maternity return rate in the department has improved or deteriorated and any plans for further improvement. If the department is unable to provide a maternity return rate, please explain why.

Two people took maternity leave in 2009 – both returned to work.

The University’s maternity policy, rated best in the university sector by a Guardian poll and the Times Higher Education Supplement, provides for 6 months at full pay, a further 3 months at statutory maternity pay, followed by 3 months unpaid leave (total 12 months). Full holiday entitlement is accrued during the maternity period.

104 words

- (ii) **Paternity, adoption and parental leave uptake** – comment on the uptake of paternity leave by grade and parental and adoption leave by gender and grade. Has this improved or deteriorated and what plans are there to improve further.

Four people took paternity leave in 2008 and 2010, two in 2009, all returned to work. There have been no requests for parental leave. There was one adoption leave in 2010.

31 words

- (iii) **Numbers of applications and success rates for flexible working by gender and grade** – comment on any disparities. Where the number of women in the department is small applicants may wish to comment on specific examples.

There have been no requests for flexible working in the last 3 years. This is thought to be due to the already flexible nature of the working environment within the School.

31 words

- b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.
- (i) **Flexible working** – comment on the numbers of staff working flexibly and their grades and gender, whether there is a formal or informal system, the support and training provided for managers in promoting and managing flexible working arrangements, and how the department raises awareness of the options available.

The School has always behaved flexibly with respect to staff needs re timing of meetings and the need to recognise the need for a flexi time style of working day. We do not have exact statistics on the proportion of staff harnessing this policy but specific staff profiles on our Athena SWAN website from our staff do mention these features of flexible working. We can also refer to the data from our recent staff survey whereby 82% of respondents say that their line manager allows them to work flexibly, with only 5% actually being refused.

95 words

- (ii) **Cover for maternity and adoption leave and support on return** – explain what the department does, beyond the university maternity policy package, to support female staff before they go on maternity leave, arrangements for covering work during absence, and to help them achieve a suitable work-life balance on their return.

The cover provided for teaching responsibilities works well with colleagues being supportive of each others needs in much the same way that cover is provided when staff are on sabbatical leave. On return to work flexible working is a very positive feature of our School working environment and is documented for example in the staff personal profiles available on our School Athena SWAN website.

64 words

Total words for Sections 4, 5,6 and 7 = 3166.

8. Any other comments – maximum 500 words

Please comment here on any other elements which are relevant to the application, e.g. other SET-specific initiatives of special interest that have not been covered in the previous sections. Include any other relevant data (e.g. results from staff surveys), provide a commentary on it and indicate how it is planned to address any gender disparities identified.

The form is very comprehensive and we are happy that we have had a full opportunity to present our case.

20 words

9. Action plan

Provide an action plan as an appendix. An action plan template is available on the Athena SWAN website.

The Action Plan should be a table or a spreadsheet comprising actions to address the priorities identified by the analysis of relevant data presented in this application, success/outcome measures, the post holder responsible for each action and a timeline for completion. The Plan should cover current initiatives and your aspirations for the next three years.

The action plan does not need to cover all areas at Bronze; however the expectation is that the department will have the organisational structure to move forward, including collecting the necessary data.

Our Action Plan is provided below. The relevant post holders by name, for the coming three years, are:-

The Head of School and Chair of the School Management Team is Professor Christopher Whitehead;

Head of School Administration, Nicky Snook;

Head of School Safety Policy and Building Superintendent, Dr Elaine Armstrong;

UCAS Admissions Officer, Dr Peter Gorry;

Director of Teaching, Professor Garry Procter;

School Athena SWAN Champion and Senior Mentor for the New Academics Programme, Professor John R Helliwell;

Chair of the School Board; Election of a new Chair is imminent, the outgoing Chair is Dr Ian Watt;

Chair of the PostDocs Forum, Dr Susannah Coote;

Head of EPS Human Resources (HR), Ms Susan Field.

For Silver Department awards only

1. School profile student & staff statistics

Category	What issues have been identified?	What actions are proposed to address these issues?	What will success look like?	Who will be responsible for taking the action?	What is the timescale for activities (2011-2014)?	How have/will these actions been communicated to staff?	Progress log
1.1 Student Profile Data	There is a F:M split of 44% to 56% on our undergraduate programmes; although better than the national average, this could still be improved.	To become more active in the recruitment and admissions of Foundation course students. Continue to develop and engage in more outreach activities, particularly for female students at the start of secondary school. Higher numbers of female student guides and mention of the School commitment to the Athena SWAN initiative at UCAS visit days. All female academic staff, including research fellows, will interview prospective students.	An increase in female applications over the next 5 years. As outreach to Schools will undoubtedly influence applications both in scientific disciplines other than Chemistry and to Universities other than the University of Manchester, we will need to monitor the statistics of both our own undergraduate applications and the future applications of pupils from the Schools involved in the outreach programmes.	Admissions Officer; Outreach Team: Teaching Committee	Year 1 – Increased female presence at UCAS interviews (student guides and interviewers) Year 2 – Development and implementation of bespoke sessions for female secondary school children and to encourage applications from females for undergraduate degrees in Chemistry	Via email and at the School board meetings.	
		To seek feedback from High Schools/Colleges as to why female applicants do or don't apply to Manchester for Chemistry.	A clear set of reasons why applicants apply or don't to Manchester with the development of a plan to redress any issues over the next 3 years	Teacher Fellow, Admissions Team, Teaching Committee	Year 1 – Survey of School/Colleges and analysis Year 2 – implementation of action plan Year 3 – Review of number of applicants		
	Limited encouragement of females on to PhDs	More targeted work, particularly by female	An increase in the ratio of female applicants for	Director of Postgraduate	Immediate		

		academic staff, to encourage female undergraduate students to consider undertaking a postgraduate research degree. This will include an annual workshop on the benefits of undertaking a PhD and long-term career prospects.	a PhD over the next three years	Education, Director of Research, research Committee			
		Investigate what is happening from the application to offer stage for female applicants. Ensure there is a female academic alongside potential supervisor on interview panels	Increased numbers of both applications and acceptances for female postgraduate degrees.	Director of Postgraduate Education, Postgraduate Recruitment & Admissions Officer	Immediate		
		Devise a Postgraduate exit questionnaire	Clearer understanding of any issues with action plan developed as necessary.	Director of Postgraduate Education, Postgraduate Recruitment & Admissions Officer	Year 1 – develop and implement exit questionnaire Year 2 – devise strategy for addressing generally problems Year 3 – review of applications and acceptances		
		In collaboration with the PostDocs Forum, initiate a mentoring scheme for Year 3 and Year 4 female undergraduate students.	By 2014, have in place an effective peer mentoring scheme to build the confidence of female undergraduate students and encourage them to consider careers in academic research.	Member of the Athena Swan Committee Dr David Berrisford with the Postdocs Forum Chair.	Year 1: Establish a pilot scheme with volunteers from the PostDocs Forum and female postgraduate students. The pilot scheme would be offered to a limited number of female undergraduates (ca. 30-40). The UGs involved in the pilot scheme would be those who volunteer to be leaders in the peer assisted study scheme	Via email	

					<p>(PASS), they are all especially committed students and have demonstrated excellent communication skills. In a typical year, around 30 female UG students volunteer to be PASS leaders and they would be offered the chance to take part in the pilot scheme.</p> <p>Year 2: Review the success of the pilot study during Year 1 and expand the scheme if possible based on the enthusiasm of volunteer mentors.</p>		
1.2 Staff Profile Data	Below average number of female staff compared to national average of Chemistry Departments	<p>Include a positive action statement on recruitment adverts which clearly states that the School are keen to encourage applications from women and that the School is committed to wanting to attract and progress the careers of women.</p> <p><i>"The School is committed to Athena SWAN principles to promote women in science; the School's website documenting activity in this area can be found at: http://www.chemistry.manchester.ac.uk/aboutus/athena/index.html.</i></p> <p><i>We positively welcome applications from women,</i></p>	An increase in female applications for both academic and research staff vacancies.	Head of Human Resources; Head of School; Head of School Administration	Immediate	Via email and through the Research administration office	Completed

		<p><i>who are currently under-represented at this grade. Appointment will be made on merit".</i></p> <p>Include links to the University's family friendly policies.</p> <p>Encourage academic members of staff to identify potential female candidates from conferences/events and encourage them to apply when vacancies become available.</p>					
		To conduct exit interviews to understand why staff are leaving the School.	Better understanding in order to address any issues	Head of School Administration Head of Human Resources	To be in place by year 2		
		To ensure all staff involved in staff recruitment, selection and promotion undertake equality and diversity training and training on shortlisting and interviewing.	All relevant staff are aware of equality and ensures a fair process during recruitment and promotion activities	Head of School Administration Head of Human Resources	By the end of year 1		
		Offer all female interviewees the opportunity to discuss working in Chemistry at Manchester with a female member of staff.	An increase in the number of female acceptances	Head of School Administration	By the end of year 1		

2. Initiatives to support and advance staff in the School

Category	What issues have been identified?	What actions are proposed to address these	What will success look like?	Who will be responsible for taking the	What is the timescale for activities?	How have/will these actions been communicated	Progress log
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		issues?		action?		to staff?	
2.1 Key career transition point 1: academic promotion	Lack of feedback to failed applicants for promotion Lack of clarity in promotions guidelines	Guidelines have been reviewed, including a better clarity of feedback requirements and this has been circulated widely.	Positive feedback from staff involved in the promotions process	Head of School, Head of School Administration, Heads of Section	Immediate	School Board	Completed
	Female staff are less likely to put themselves forward for promotion	To ensure the Faculty's Academic Promotions Masterclass is promoted to staff in the School and that women are particularly encouraged to attend. Appointments for early career researchers with experienced staff to give help and advice on CVs, research proposals etc. Encourage line managers of female staff to pro-actively encourage the promotion of staff where appropriate. Ensure that all PDR interviews follow the standard template devised by the School which includes specific questions about career aspirations	Increase in Masterclass attendance. Increase in the numbers of female staff applying for promotion	Head of School; Head of School Administration; Staff Line Mangers	2011		
2.2 Key transition point 2: FTRC to academic posts	Transition from PostDoc to New Academic	Organise regular workshops to provide guidance for Fellowship applications. Establish an initiative linking postdoctoral researchers with current/previous successful (female) research fellows.	Increased numbers of successful fellowships applications, particularly from female staff.	Chair of the Postdocs Forum; Head of Research Administration	Immediate and on-going	Via email, flyers, word of mouth	Completed

		In collaboration with the PostDocs Forum, ensure that the School of Chemistry seminar programme has an improved gender balance. Promote networking between female researchers in the School of Chemistry and visiting speakers.	By 2014, to achieve an increase in the number of female researchers giving seminars as part of the official School of Chemistry seminar programme. Our target is not less than 30% female speakers. <i>At least</i> two opportunities per year for female UGs, PGS, and PDRAs to have <i>extended discussions</i> with visiting speakers.	School of Chemistry Seminar Committee (Dr David Berrisford, Dr Louise Natrajan, Dr Richard Henchman) Postdocs Forum	Immediate	Via email	
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3: Culture change

Category	What issues have been indentified?	What actions are proposed to address these issues?	What will success look like?	Who will be responsible for taking the action?	What is the timescale for activities?	How have/will these actions been communicated to staff?	Progress log
3.1 Staff roles & committee membership	Gender balance of School Management committees	Active monitoring of the School's Committee membership. Active discussions with female staff about committee membership	Female representation on all key School committees	Head of School, School Management Team, Heads of Section	Immediate and continuous.	School Board / e-mail. Line Manager.	Ongoing

		with a view not to over burden them.				Intranet minutes of School Board, School Management Team.	
3.2 Workload	Workload ambiguity particularly on female academics seeking to help redress gender imbalance in the field	Transparent workload model for all staff in the School.	Positive feedback from staff regarding the distribution of workload across the School	Head of School, School Management Team, Heads of Section	Year 1	Line Manager.	
3.3 Inclusive environment	To ensure female staff feel that they have an opportunity to contribute to the School and that there are no gender barriers to participation.	Anonymous survey of all female staff to find out if they feel there are any barriers to participation	Any issues are addressed No issues from staff at the end of 3 years	Head of School or Head of School Administration	Year 1 – survey developed Year 2 – address results of survey		
3.4 Flexible working practices	Ensure staff are aware of the School's flexible working practices	Conduct a survey specifically on flexible working to gain feedback. Line managers encouraged to discuss flexible working as part of the annual Performance and Development Review (PDR). Development of template outlining key issues to be discussed at the PDR.	Positive feedback from staff which is reviewed annually. Understand and address where possible reasons why informal requests for flexible working were turned down.	Head of School, School Management Team, Heads of Section	Year 1 – development of template for PDR discussions	Line Manager.	Completed
		Formal guidelines/agreement for School meetings to be scheduled in core hours (unless agreed with all members)	Meetings are generally held during core/child friendly hours. Higher attendance/participation from all staff.	Heads of Section	Immediate		
3.5 Monitoring progress against	Potential risk of activity identified on the action plan falling behind schedule	Bimonthly self assessment team meetings to be scheduled, with standing	Meetings being held, progress achieved	School Athena Swan Self Assessment Team secretary	Every 2 months	School management meetings, School Athena SWAN	

action plan		agenda item to monitor progress against plan and propose activities to generate action.		and members		website	
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10. Case study: impacting on individuals – maximum 1000 words

Describe how the department's SWAN activities have benefitted two individuals working in the department. One of these case studies should be a member of the self assessment team, the other someone else in the department. More information on case studies is available in the guidance.

Case Study 1; Dr Sarah Heath (Member of the Self-Assessment Team):-

I joined the University of Manchester from the University of York as a Royal Society Fellow and Senior Lecturer in April 2001, shortly after returning from maternity leave with my second child. From the outset the School was very supportive of that fact I had two young children: allowing my husband (also an academic in the School of Chemistry at Manchester) and I flexible working hours to facilitate childcare arrangements.

In 2004 my husband and I separated. The School was incredibly supportive during this time; helping me to re-balance my academic responsibilities and find a career path that was more workable as a single parent. At this junction I stepped back from my research activities and took on a new role as head of Outreach. Over a three-year period I totally re-vamped the Outreach programme – developing activities for all ages ranges from Primary school children through to the general public. We developed in house events, shows to take to schools and festival activities and events. In this period I went to over 150 schools and saw in excess of 10,000 school children. This change of direction was in no way detrimental to my career though as in 2007 I was promoted to Reader.

As my children were now a little older I felt ready to re-enter the world of research. Again, both my line manager and my Head of School were extremely supportive in this regard. They supported my successful application for a sabbatical to allow me to establish myself in a new research field, Nuclear Chemistry. This research is now beginning to bear fruit and in 2009 I was appointed as a Co-Director of the Nuclear FiRST Doctoral Training Centre and I have recently been given responsibility for developing CPD Programmes in the nuclear area.

My annual PDR's are invaluable to me – as my pen portrait on our School of Chemistry Athena Swan website says *"Life as a single, working mother with two school age children comes packed with difficulties - not least in finding the right work-life balance. The School of Chemistry has been enormously supportive of me and my childrens' needs and has enabled me to find a work-life balance that works for everybody."* This statement largely comes from my experiences of my PDR's. My line manager has always taken the time to ask about my home life and my children and talk about how this works within the constraints of my academic job. They have always been ready to suggest mechanisms by which I can change the balance of my job as my children's needs have changed. Small changes, such as timetabling my lectures to not start before 10am, so that I can take my children to school have had an enormously positive impact on my working life.

462 words.

Case Study 2; Dr Anna Valota (PDRA IN THE SCHOOL OF CHEMISTRY and Non-Member of the Self-Assessment Team):-

I completed my academic studies (BSc, MSc) in Materials Engineering at “Politecnico di Milano” (Italy) in 2005. Immediately afterwards, I was employed by ST-Microelectronics and I worked there for one year as Process Integration Engineer. Although I really enjoyed my job, I was looking forward to a professional experience outside my country. I soon realized that a PhD student in the UK was usually paid as much as a new graduate in Italy. Furthermore, the job market in the UK seemed more dynamic and flexible than in my own country. The University of Manchester was particularly attractive to me, for the balance between the very rich offer in research programmes and the relatively low cost of life, compared to London and the surrounding universities, like Oxford or Cambridge.

By the beginning of 2007 I commenced my PhD studies at the Corrosion and Protection Centre, in the School of Materials. My research was part of a project funded by the European Commission through the Sixth Framework Programme. I worked in collaboration with other researchers based in the University of Erlangen (Germany) and in the National Centre for Scientific Research of Athens (Greece). My studies were aimed to find the mechanism behind the electrochemical growth and self-ordering of titanium oxide nanotubes in fluoride-containing electrolytes. During the three years of my PhD I had the opportunity to build an international network of collaborations, to broaden my knowledge of electrochemistry and anodic growth, and to acquire hands-on experience of the most advanced surface analysis techniques. I found it a challenging and very rewarding experience. The last year of my PhD was very intense also from a personal point of view. My boyfriend and I decided to get married and having a baby, and in November 2009 I became Mum. As a PhD student, I didn't expect to have any right to a paid maternity leave, although this assumption was not entirely correct*. However, I decided to continue my studies without asking for an interruption, and I managed to achieve my PhD in March 2010, four months after my daughter was born. In April 2010 I started to look for a job. I considered to return working in the private industry as well as to stay in academia and beginning a post-doctoral research contract. In October 2010 I finally accepted an offer for a PDRA position in the School of Chemistry: it was a very attractive field of research for me and Prof. Novoselov, who was just awarded with the Nobel Prize for Physics, was part of the project. Now I am working full time, so I'm taking advantage of one of the nurseries operated directly by the University of Manchester and open to staff and students. I believe it's an excellent benefit for my family and for many others.

465 words

**The “Maternity, Adoption and Paternity Pay Policy for Funded Postgraduate Research Students (June 2010)” divide the students of The University of Manchester in four classes: (i) students who receive an annual maintenance stipend directly by The University of Manchester (i.e. from a School, Faculty or central department) and/or from a Research Council Doctoral Training Grant; (ii) students who receive an annual maintenance stipend directly from an external organization; (iii) students who receive an annual maintenance stipend via a project funded by a research grant; (iv) student who don't receive an annual maintenance stipend (self-funded). Students belonging to class (i) are entitled to*

26 weeks of paid maternity leave, while the others are not. I belonged to class (iii), so I wasn't entitled to receive any paid maternity leave from The University of Manchester. Personally, I believe that this is a critical point in the University policy that merits further investigation and clarification.

[Note re above:-

With the above case study it became clear to the Self Assessment Team that the regulations around maternity leave for Postgraduate Research Students appeared to be unclear and ambiguous. The Head of EPS HR has undertaken to investigate this current position, with a view to establishing the reason for the differential along with any necessary lobbying to extend the provision of paid maternity leave to other classifications of Postgraduate Research Student.]

Our overall Summary and Conclusions:-

- The School's Athena SWAN specific efforts and plans stretch back to 2008 led by John Robinson along with the then Head of School, Prof Paul O'Brien's participation on the University of Manchester's Bronze Award application, which was successful.
- The School's application for Silver Award in 2010 was unsuccessful but the assembling of that application and the subsequent general and specific feedback from Athena SWAN have provided a platform for our work since 2010.
- The School has a major outreach programme to Schools which benefits all University Chemistry Departments UCAS entrance statistics, very notably involving Dr Sarah Heath these last 5 years, now completed, but in this time with her serving as an important Female role model. Dr Katayune Presland has now been appointed by the School as an RSC Outreach Fellow to go into Schools; there are only 4 such Fellows in the whole of the UK. Dr Christie Turner, Head of Chemistry at West Houghton High School will join us as a Teacher Fellow for 2011/2 working and advising us on the school-university transition.
- The School has a healthy Female/Male postgraduates and PDRA %s Female/Male split.
- The School is on a firmly upward trajectory with its Female academic staff appointments these last 10 years.
- The School now has female academics at every grade up to Professor, and who, as role models, can inspire future applications from women and provide role-model-encouragement that to reach the top is indeed possible within our School.

Furthermore

- The School has engaged with the Faculty of Engineering and Physical Sciences Human Resources Team to benefit from Equality and Diversity Training.
- The School is engaging with other Departments such as Physics and CEAS in sharing best practice.
- Indeed the School has started to engage with Athena SWAN nationally to achieve best practice, aiming ultimately in a few years time for the Athena SWAN 'Gold Award' level.

Finally we wish to reiterate our sense of culture:-

The School Board, being a forum for all staff, has always proactively helped achieve an inclusive environment.

Our Post Docs Forum was established in 2009; this is Chaired by Dr Susannah Coote, one of our Athena SWAN Self Assessment Team Members.

Our Athena SWAN website documents academic staff case studies highlighting family friendly practices and carries minutes of our Self Assessment Team Meetings and reports to the School Board.

Our Meetings and lectures are now in core hours i.e. including start and finish times.

There is sensitive structuring of work around family caring requirements – e.g. School colloquia and delivery of lectures

Mentoring and Personal Development Reviews are embedded in the School culture – notable via the New Academics Programme in a formal way, and in addition provision for mentoring of PostDocs at School and Faculty level – which in detail allow female specific issues to be raised and addressed.

We have the WiSET (Women in Science, Engineering and Technology) initiative and within which we are pleased as a School to participate.

We use equality and diversity inclusive images in our School literature such as prospectuses and our website.

Our recent staff survey questions allowed for equality and diversity feedback. This survey was instigated when the School adopted Athena Swan principles over three years ago. The new buildings programme for the School has yielded increased provision of female toilets across the building, which is appreciated by female staff as evidenced by the Survey responses.

Throughout this document we have described a variety of gender and family friendly examples at all stages of female careers. These included the impact of the PostDocs Forum on females with respect to networking (described by Dr Susannah Coote, Chair of the Forum), sensitive scheduling of work commitments such as lectures to take account of child care requirements (Dr Sarah Heath,

Reader in Inorganic Chemistry), part time working at variable percentages (50% through to 80%; Dr Madeleine Helliwell, Permanent Research Fellow), and of course the six staff case studies can now be found at our School's Athena Swan website:- <http://www.chemistry.manchester.ac.uk/aboutus/athena/> as well as the two case studies above provided in this application.

Appendix: Applications data as supplements to the histograms and pie chart plus commentaries provided throughout the document. Thereby we would welcome any further insights that the Athena Swan Assessment Panel assessing our Silver application might give us to help us further with our Gold Award plans for the coming three years or so.

Table 1: Job applications and success rates by gender for School of Chemistry 2008/09ⁱⁱⁱ

	Application		Shortlisted		Successful	
	Count	%	Count	% of getting shortlisted	Count	% of being successful
Female	35	22%	5	14%	3	60%
Male	120	77%	17	14%	5	29%
Not known	1	1%				
Total	156	100%	22		8	

Table 2: Job applications and success rates for academic and research posts by gender 2009/10^{iiiiiv}

		Application		Shortlisted		Successful	
		Count	%	Count	% of getting shortlisted	Count	% of being successful after being shortlisted
School of Chemistry	Female	117	29%	13	11%	5	38%
	Male	276	69%	34	12%	11	32%
	Not known	6	2%				
	Total	399	100%	47		16	
Faculty of Engineering and Physical Sciences	Female	366	23%	65	18%	28	43%
	Male	1191	76%	210	18%	75	36%
	Not known	19	1%	1			
	Total	1576	100%	276		103	

Table 3: Job application and success rates for academic and research posts in The School of Chemistry by gender 2009/10ⁱⁱⁱ

		Application		Shortlisted		Successful	
		Count	%	Count	% of getting shortlisted	Count	% of being successful after being shortlisted
Academic	Female	6	18%	22	367%	9	41%
	Male	27	79%	48	178%	14	29%
	Not known	1	3%				
	Total	34	100%	70		23	
Research	Female	111	30%	43	39%	19	44%
	Male	249	68%	162	65%	61	38%
	Not known	5	1%	1			
	Total	365	100%	206		80	

Table 4: Job application and success rate in The School of Chemistry by gender and grade 2009/10ⁱⁱⁱ

			Application		Shortlisted		Successful	
			Count	%	Count	% of getting shortlisted	Count	% of being successful after being shortlisted
Academic	Grade 5 & 6	Female	3	16%	1	33%		0%
		Male	15	79%	2	13%	1	50%
		Not known	1	5%		0%		
	Grade 7	Female	3	20%	2	67%	1	50%
		Male	12	80%	3	25%		0%
Research	Grade 5 & 6	Female	111	30%	10	9%	4	40%
		Male	249	68%	29	12%	10	34%
		Not known	5	1%		0%		
Support staff	Grade 1 - 4	Female	298	53%	5	2%	2	40%
		Male	266	47%	4	2%	1	25%
		Not known	1	0%		0%		

Table 5: Job application and success rate in Science, Engineering and Technology (SET) Faculties^v by gender and grade 2009/10

				Application		Shortlisted		Successful	
				Count	%	Count	% of getting shortlisted	Count	% of being successful after being shortlisted
SET Faculties	Academic	Grade 5 & 6	Female	113	34%	45	40%	14	31%
			Male	206	62%	62	30%	18	29%
			Not known	11	3%	0	0%	0	
		Grade 7	Female	42	20%	12	29%	3	25%
			Male	171	80%	31	18%	10	32%
			Not known	2	1%	0	0%	0	
		Grade 8 & 9	Female	11	17%	5	45%	3	60%
			Male	52	81%	17	33%	2	12%
			Not known	1	2%	0	0%	0	
		Not known	Female	4	67%	1	25%	0	0%
			Male	2	33%	0	0%	0	
			Not known	0	0%	0		0	
	Research	Grade 1 - 4	Female	91	48%	6	7%	1	17%
			Male	100	52%	5	5%	1	20%
			Not known	0	0%	0		0	
		Grade 5 & 6	Female	1007	38%	207	21%	63	30%
			Male	1477	55%	279	19%	100	36%
			Not known	190	7%	27	14%	5	19%
		Grade 7	Female	52	34%	19	37%	4	21%
			Male	99	66%	23	23%	7	30%
			Not known	0	0%	0		0	

Table 6: Job application and success rate in The University of Manchester by gender and grade 2009/10

University	Academic	Grade	Gender	Application		Shortlisted		Successful	
				Count	%	Count	% of getting shortlisted	Count	% of being successful after being shortlisted
	Academic	Grade 5 & 6	Female	610	47%	123	20%	37	30%
			Male	658	51%	116	18%	28	24%
			Not known	25	2%	7	28%	1	14%
		Grade 7	Female	64	25%	16	25%	5	31%
			Male	194	75%	38	20%	11	29%
			Not known	2	1%	0	0%	0	
		Grade 8 & 9	Female	26	32%	11	42%	5	45%
			Male	55	67%	19	35%	2	11%
			Not known	1	1%	0	0%	0	
		Not known	Female	4	67%	1	25%	0	0%
			Male	2	33%	0	0%	0	
			Not known	0	0%	0		0	
	Research	Grade 1 - 4	Female	91	48%	6	7%	1	17%
			Male	100	52%	5	5%	1	20%
			Not known	0	0%	0		0	
		Grade 5 & 6	Female	1210	39%	241	20%	73	30%
			Male	1674	54%	301	18%	105	35%
			Not known	192	6%	27	14%	5	19%
		Grade 7	Female	52	34%	19	37%	4	21%
			Male	99	66%	23	23%	7	30%
			Not known	0	0%	0		0	

ⁱ **Source:** Data collected at faculty level through Equal Opportunities forms 2009.

ⁱⁱ 6 research posts all at grades 5&6 (one post had 3 vacancies).

ⁱⁱⁱ **Source:** Data collected at faculty level through Equal Opportunities forms 2009/10.

Secondary Analysis by: Equality and Diversity, March 2011.

^{iv} The figures are slightly different than the Operational Performance Review (OPR) 2010 as more posts were identified after the data had been submitted for the OPR.

^v this includes 3 posts that are not in schools, one post in Faculty of Medical and Human Sciences faculty office and two posts in Faculty of Life Sciences faculty office.