

Athena SWAN Silver department award application

Name of university: University of St Andrews

Department: School of Mathematics and Statistics

Date of application: 30 April 2014

Date of university Bronze and/or Silver Athena SWAN award: 25 April 2013

Contact for application: Prof. Ineke De Moortel

Email: ineke.demoortel@st-andrews.ac.uk

Telephone: 01334 463757

Departmental website address: http://www-maths.mcs.st-andrews.ac.uk/

School Equality webpage: http://www-maths.mcs.st-andrews.ac.uk/equality.shtml

Supporting webpage:

http://www.st-andrews.ac.uk/hr/edi/sex_gender/athenaswansupport/maths/

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

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

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

Sections to be included

At the end of each section state the number of words used. Click <u>here</u> for additional guidance on completing the template.

1. Letter of endorsement from the head of department: maximum 500 words (Total: 499 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 STEMM activities that have made a significant contribution to the achievement of the departmental mission.

Please refer to the supporting letter from Prof Nik Ruskuc, Head of School, School of Mathematics & Statistics, University of St Andrews, at the end of this document.

2. The self-assessment process: maximum 1000 words (Total: 997 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.

In April 2013, an Equality and Diversity (E&D) Committee was established in the School of Mathematics & Statistics. The team is constituted to be representative of the three divisions within the School. A student representative was co-opted in September 2013 to form the School's Athena Swan self-assessment team (SAT).

Dr Vasilis Archonitis - (*Applied Maths*) A Royal Society University Research Fellow who joined the School in 2006 as a postdoctoral researcher. He is married and has two young children (ages 5 and 9) and benefits from (informal) flexible working hours to be able to pick the children up from school every day.

Zoe Ashwood - Zoe Ashwood - A final year MPhys, Mathematics & Theoretical Physics student with a keen interest in understanding the "women in STEM" issue. She attended and presented at the "Falling Walls" Lab Conference in Berlin last November. She balances her undergraduate studies with a large number of extra-curricular activities.

Dr Louise Burt - (*Statistics*) A member of research staff (on a standard contract) who has been working in the School since 1996. Her work-life is balanced by keen sporting interests.

Prof Ineke De Moortel - (*Applied Maths*) SAT Chair. Recently promoted professor who joined the School in 1997 as a PhD student and was appointed in 2005 as a Lecturer. Held a Royal Society University Research Fellowship from 2004-2013. Married with two young children (ages 4 and 6) and has benefitted from flexible working hours.

Dr Michail Papathomas - (*Statistics*) A lecturer who joined the School in September 2011. Married with two young children (ages 2 and 5).

Dr Colva Roney-Dougal - (*Pure Maths*) A Senior lecturer who joined the School as a Lecturer in 2005, after two years as a Postdoctoral Fellow in the School of Computer Science. Lives with long-term partner and has no children.

Prof Nik Ruskuc - (*Pure Maths*) Head of the School (HoS) of Mathematics & Statistics. Nik received his doctorate from the University of St Andrews in 1995, then progressed through the various academic levels, reaching professorship in 2004, and was appointed Head of School in 2010. Nik is married and has two children (ages 16 and 18), and both he and his wife have continued working in parallel with bringing the children up.

Sukhi Bains - (E&D Officer) provided extensive support for the preparation of this document.

 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 SAT members are representative of a range of career stages and appointments and colleagues with and without children were purposefully included. The team includes HoS, Prof Nik Ruskuc, and is chaired by Prof Ineke De Moortel, who is also a member of the University's Athena Swan SAT.

The School's SAT has met 4 times since being set up in September 2013, with 2 additional meetings of the Equality and Diversity Committee. All members of the SAT were involved with the preparation of this document and an update of the submission process to all Mathematics & Statistics staff was presented at School Council Meetings (Oct 2013, Mar 2014). Progress was monitored on http://www.st-andrews.ac.uk/hr/edi/sex_gender/athenaswansupport/maths/.

The University's SAT members highlight and exchange gender equality in STEM related news on the University's Athena SWAN support webpages (http://www.st-andrews.ac.uk/hr/edi/sex gender/athenaswansupport/).

Student data were provided by Registry, staff data were provided by HR and an anonymous School "Staff Gender Inclusion Survey" was conducted. A voluntary lunchtime discussion meeting was organised (30 Jan 2014) for all staff to discuss some of the issues highlighted by the survey. This discussion mainly focussed on social events within the School and female representation on School committees (including the risk of overburdening the relatively small number of senior female staff). In addition, the School took part in the London Mathematical Society's (LMS) Good Practice survey in September 2012 and is a Supporter of the LMS Good Practice Scheme (http://www.lms.ac.uk/women/good-practice-scheme). The SAT Chair attended a LMS 'Women in Mathematics Good Practice Scheme Workshop: Preparing for an Athena SWAN application' workshop in London on 15 Nov 2012.

The School recognises the importance of female role models in both its recruitment and outreach activities. There is always a strong female representation at outreach events and currently both our Outreach Officer (Prof Clare Parnell) and Admissions' Officer (Dr Colva Roney-Dougal) are female. The School also ensures that a significant number of the Advisers of Studies are female.

Finally, as the School has a substantial number of female PhD students, many of the sub-honours tutors are female.

At undergraduate level, our SAT student representative, together with the School President (a female Junior Honours student for the academic year 2013-2014) ran a lunch-time student discussion meeting to engage the wider Maths student body in our E&D conversation (1 Apr 2014).

As co-chair of the Royal Society of Edinburgh (RSE) Young Academy of Scotland, Ineke De Moortel organised a panel discussion on "Strategies to address inequalities in the workplace" at the University of St Andrews (March 2013). She is also a member of the Young Academy's working group "Tapping all our Talents", which aims to actively promote the recommendations set out in the RSE "Tapping all our Talents" report.

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.

After submission of the School's 2014 Athena SWAN application, the SAT will resume its ongoing work as the Equality & Diversity Committee. It is foreseen that the Committee will meet 3 times per year. Chairing and being a member of this committee has been recognised as an administrative duty in the School's "Who Does What". The Committee will report regularly at the School's Staff Council meetings.

It is the team's intention to continue supporting the Student Discussion Forum started by Zoe Ashwood. The E&D Chair, with the help of the School President, will try to identify a successor for Zoe Ashwood at the start of the 2014/2015 academic year (as Zoe is expected to graduate in June 2014).

Action 2.1: Maintain the E&D committee meetings at a frequency of 3 meetings per year and report to Staff Council.

Action 2.2: Establish the student representative on the E&D committee as one of the standing roles amongst the School's students.

3. A picture of the department: maximum 2000 words (*Total: 2060 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 Mathematics & Statistics in St Andrews has 33 permanent academic staff (9 females) and 12 active emeritus staff (all male). There are 28 research staff (11 females), and 42 PhD students (17 females). Support staff consists of 7 administrative staff members (6 female) and 6 Computing Officers (1 female). Senior roles (rotated on a 3-5 year basis) within the School are: Head of School, Deputy Head of School, Directors of Teaching, Research and Postgraduate Affairs and the Admissions Officer. Currently, both the Director of Research and the Admissions Officer are females. In addition, each of the three divisions within the School has its own Head of Division.

Currently all three Division Heads are male but until very recently, two of the divisions had a female Division Head.

Research in the School is structured around Research Groups, all of which are well-established internationally: Solar and Magnetospheric MHD Theory, Vortex Dynamics, Algebra & Combinatorics, Analysis, Statistical Ecology and Statistical Inference. There is also a History of Mathematics Group with members drawn from across the School.

The courses offered in Mathematics and Statistics at St Andrews are very popular and frequently feature highly in UK league tables. Over the last few years, our Senior Honours class has been over 100 in size. Still, the School prides itself on its friendly, small-scale and supportive atmosphere, where tutorials are performed in small class sizes and staff know many of their students by name.

Although staff turnover at the University of St Andrews is generally quite slow, there have been substantial changes in staff in the School due to recent retirements. Since 2008 the number of permanent academic staff has increased from 31 to 33 (including 11 Professors, 6 Readers and 3 Senior Lecturers) of whom 9 are women (3 Professors, 1 Reader and 1 Senior Lecturer). There is a healthy age balance of $40\% \le 40$; 25% 41-50; 35% > 50.

(319 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.

STUDENT DATA

(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.

The school currently has no such courses.

(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.

Almost all of our students are full-time, so we have not included a break-down into full-time and part-time numbers. In general, it appears that a far higher proportion of our undergraduate students are female than the national average, so there is no evidence of anti-female bias. We are slightly concerned to note that the percentage of female students appears to be declining year-on-year. However, looking at the absolute number of students, it is clear that the number of female students has been essentially flat (in the range 140-162), whilst the number of male students has been steadily increasing. We have female students and staff working at the UCAS open days, to be as welcoming as possible to female applicants, and our publicity material for undergraduate degrees includes interviews with female students.

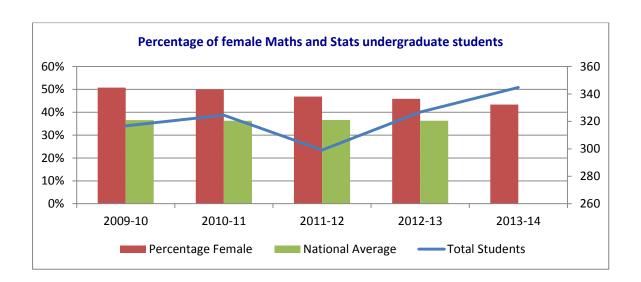
Action 3.1a,b: We will monitor the number of male and female students. If the percentage continues to decrease, we will investigate in more detail where the change is occurring: in applications, offers, acceptances, or in changes of degree.

Action 3.2: We will ask our female students why they chose St Andrews during a future student lunchtime discussion meeting to uncover the reasons why our numbers are so much higher than the national averages and how we can keep them high.

Action 3.3a,b: The School will continue to encourage female students and staff to assist at the UCAS open days, and interview female students for the prospectus.

Table 1) Total number of undergraduate students in Mathematics and Statistics by gender:

Academic Year	Female	Male	Total Students	Percentage Female	National Average
2009-10	161	156	317	51%	37%
2010-11	162	163	325	50%	36%
2011-12	140	159	299	47%	37%
2012-13	150	177	327	46%	36%
2013-14	150	195	345	43%	



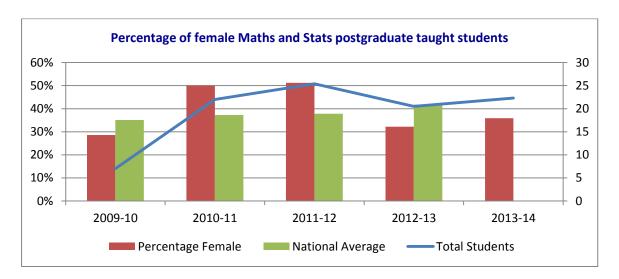
(iii) **Postgraduate male and female numbers completing taught courses** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

The number of students is so small that there are big variations in the data, and we do not see any consistent trend. Neither do we seem to be consistently above or below the national average although for the years 2010-11 and 2011-12, when the cohort was slightly bigger and National Averages were available, our percentage of female students compared favourably.

Action 3.4: We will continue to monitor these numbers annually. If the cohort size increases substantially, it might become possible to draw more substantial conclusions.

Table 2) Number of postgraduate taught students in Mathematics and Statistics by gender:

<u>-</u>	<u> </u>				
Academic Year	Female	Male	Total Students	Percentage Female	National Average
2009-10	2	5	7	29%	35%
2010-11	11	11	22	50%	37%
2011-12	13	12	25	51%	38%
2012-13	7	14	21	32%	42%
2013-14	8	14	22	36%	



(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.

The postgraduate data shows a very similar pattern to the undergraduate data. As a substantial proportion of our PhD students have a St Andrews UG degree, we would expect a correlation between the undergraduate and postgraduate numbers. However, although the percentage of female students is much higher than the national average, it appears to be steadily declining. Looking at the absolute numbers shows that in fact the number of women is fairly flat, with just a slight downward trend, and that the percentage decline is largely due to the number of male students increasing.

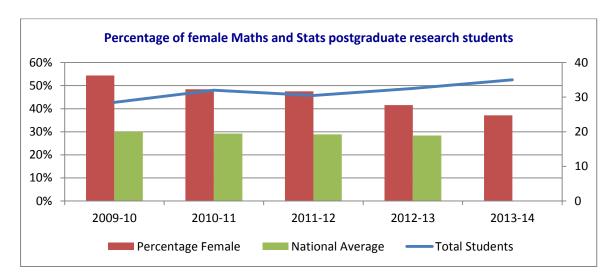
Action 3.5a: We will monitor this data annually, comparing with the national average when possible.

Action 3.5b: If the relative number of female research students keeps declining (compared to the national average), we will investigate why female students have started to look less favourable upon St Andrews for postgraduate research through discussions with both the final year undergraduate cohort and the postgraduate research student body.

Action 3.6: We will invite a postgraduate student representative to be part of the E&D committee to make sure their interests are taken into account.

Table 3) Number of postgraduate research students in Mathematics and Statistics by gender:

Academic Year	Female	Male	Total Students	Percentage Female	National Average
2009-10	16	13	29	54%	30%
2010-11	16	17	32	48%	29%
2011-12	15	16	31	48%	29%
2012-13	14	19	33	42%	28%
2013-14	13	22	35	37%	



(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.

Our **undergraduate** admissions policies appear to be either completely fair or very slightly biased towards females, with the proportion of female offer-holders being equal or slightly more than the proportion of female applicants. The proportion of female offer-holders who accept their offer is consistently either equal to or greater than the male equivalent, possibly due to the strong female presence at open days. The "acceptances" data includes students who are accepting our offer as their insurance choice. Finally, the proportion of female entrants is as one would expect. These numbers seem healthy to us.

Note that **undergraduate** students at St Andrews can change their degree intention, and that this provides for far more of the variation in student numbers through the years than students dropping out entirely. The proportions of our female new entrants appears to be roughly the same as the overall proportion of female mathematics students, so there is no evidence that the department is either repelling or attracting female students.

For the postgraduate data, we have included absolute values and percentages, as numbers are small. We see no clear pattern in the change in percentages between applications and offers, which is the only part of the cycle over which we have complete control, and we also see no clear pattern as we go from offers, through acceptances, to entrants. We note that the percentage of female applicants is below the percentage of female undergraduates, but this might be because

our undergraduate population contains substantially more women than the national average, and so the external applications for PhD study tend to be male-dominated.

Action 3.7: Monitor our application data.

Action 3.8: Investigate whether our female undergraduate students are less likely to continue to PhD study than our male students, and if so why. (See also **Action 3.9b**)

Table 4) Percentage of undergraduate female Mathematics and Statistics applications, offers and acceptances:

Year of Entry	Applications	Offers	Acceptances	Entrants
2009-10	41%	43%	50%	56%
2010-11	39%	42%	43%	41%
2011-12	41%	40%	44%	47%
2012-13	40%	44%	44%	47%
2013-14	37%	38%	39%	45%

Table 5) Number of postgraduate taught Mathematics and Statistics applications, offers and acceptances:

		Gender		
Year of Entry	Offer Type	Female	Male	
2009-10	Applications	29	51	
	Offers	22	27	
	Acceptances	6	5	
	Entrants	2	5	
2010-11	Applications	53	61	
	Offers	29	35	
	Acceptances	16	13	
	Entrants	11	10	
2011-12	Applications	68	94	
	Offers	39	49	
	Acceptances	18	17	
	Entrants	13	12	
2012-13	Applications	49	77	
	Offers	29	52	
	Acceptances	9	19	
	Entrants	7	14	
2013-14	Applications	72	101	
	Offers	47	51	
	Acceptances	11	15	
	Entrants	8	13	

Table 6) Percentage of postgraduate taught female Mathematics and Statistics applications, offers and acceptances:

Year of Entry	Applications	Offers	Acceptances	Entrants
2009-10	36%	45%	55%	29%
2010-11	46%	55%	55%	52%
2011-12	42%	44%	51%	51%
2012-13	39%	35%	32%	32%
2013-14	42%	48%	41%	38%

Table 7) Number of postgraduate research Mathematics and Statistics applications, offers and acceptances:

		Gender		
Year of				
Entry	Offer Type	Female	Male	
2009-10	Applications	9	21	
	Offers	6	13	
	Acceptances	2	4	
	Entrants	1	4	
2010-11	Applications	12	18	
	Offers	7	8	
	Acceptances	4	4	
	Entrants	4	4	
2011-12	Applications	17	26	
	Offers	13	9	
	Acceptances	5	4	
	Entrants	4	3	
2012-13	Applications	6	18	
	Offers	5	13	
	Acceptances	2	8	
	Entrants	1	5	
2013-14	Applications	24	49	
	Offers	7	18	
	Acceptances	3	6	
	Entrants	3	6	

Table 8) Percentage of postgraduate research female Mathematics and Statistics applications, offers and acceptances:

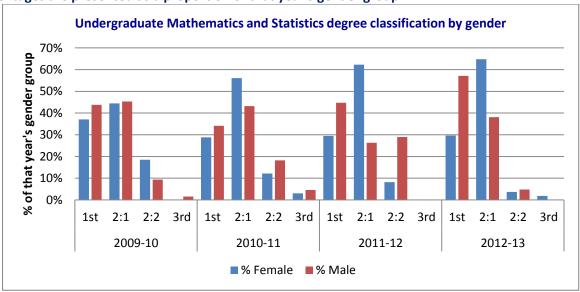
Year of Entry	Applications	Offers	Acceptances	Entrants
2009-10	30%	32%	33%	20%
2010-11	40%	50%	50%	50%
2011-12	40%	59%	56%	57%
2012-13	25%	28%	20%	17%
2013-14	33%	28%	33%	33%

(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.

Unexpectedly, female students seem to be significantly and consistently less likely to get a First than male students. In most years they are also getting far fewer Lower Seconds and Thirds. Whilst these grades will ensure good success in the graduate jobs market, they are more worrying from the perspective of continuing in academia, where a First is often essential.

Action 3.9a,b: We will investigate whether female students start their degrees with weaker abilities than male students, by looking at data from our core compulsory first and second year courses, MT1002 and MT2001. Secondly, we will establish a discussion forum to investigate how our female undergraduates feel about high performance. It could be that there is an issue of confidence as regards asking for support, but there are many other factors that could come into play.

Number and percentage of awards for undergraduate mathematics and statistics by degree classification. Percentages are presented as a proportion of that year's gender group.



(949 words)

STAFF DATA

(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.

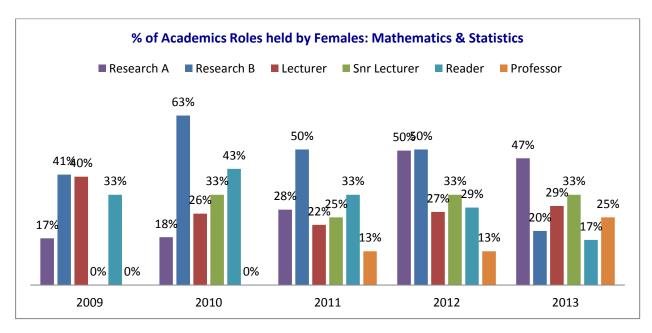
Note: Staff data is provided by the University at the most recent possible date taking into account SAT analysis time – 31 Dec data sets used for 30 April (agreed with Athena SWAN 2013). FTE = staff as Full Time Equivalent.

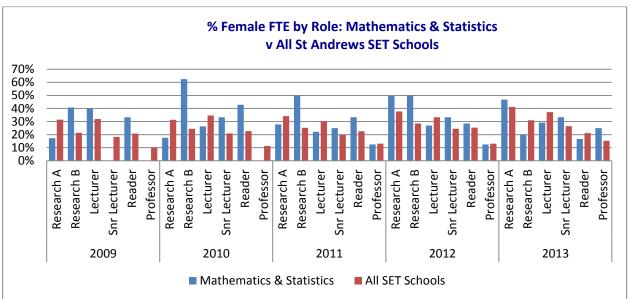
Staff data is presented as role/position corresponding to the following grades:

Overview of Staff Grades/Role					
Job Role:	Grades:				
Research A	5-6				
Research B	7-9				
Lecturer	7				
Senior Lecturer	8				
Reader	8				
Professor	9				

Table 9a) Academic Staff and Research Staff as at 31 Dec (internally benchmarked with the University):

	a) Academic St			s & Statist	•	All St Andrews SET Schools			
				%	l .			%	%
Year	Role	Female	Male	Female	% Male	Female	Male	Female	Male
2009	Research A	2.50	12.00	17%	83%	67.68	147.55	31%	69%
	Research B	5.50	8.00	41%	59%	17.60	64.33	21%	79%
	Lecturer	4.00	6.00	40%	60%	18.00	38.41	32%	68%
	Snr Lecturer	0.00	2.00	0%	100%	5.00	22.37	18%	82%
	Reader	2.00	4.00	33%	67%	9.00	34.20	21%	79%
	Professor	0.00	8.00	0%	100%	8.00	70.07	10%	90%
2010	Research A	3.00	14.00	18%	82%	65.50	143.75	31%	69%
	Research B	5.00	3.00	63%	38%	18.20	56.10	24%	76%
	Lecturer	2.50	7.00	26%	74%	21.60	40.75	35%	65%
	Snr Lecturer	1.00	2.00	33%	67%	6.00	22.70	21%	79%
	Reader	3.00	4.00	43%	57%	10.00	34.20	23%	77%
	Professor	0.00	7.25	0%	100%	9.00	71.15	11%	89%
2011	Research A	6.55	17.00	28%	72%	76.45	147.15	34%	66%
	Research B	3.00	3.00	50%	50%	20.40	60.30	25%	75%
	Lecturer	2.50	8.75	22%	78%	20.40	46.95	30%	70%
	Snr Lecturer	1.00	3.00	25%	75%	6.00	24.23	20%	80%
	Reader	2.00	4.00	33%	67%	9.00	31.00	23%	78%
	Professor	1.00	7.00	13%	88%	11.20	74.65	13%	87%
2012	Research A	11.80	12.00	50%	50%	89.10	147.25	38%	62%
	Research B	2.00	2.00	50%	50%	21.60	54.25	28%	72%
	Lecturer	3.60	9.75	27%	73%	26.90	53.95	33%	67%
	Snr Lecturer	1.00	2.00	33%	67%	7.00	21.51	25%	75%
	Reader	2.00	5.00	29%	71%	11.00	32.40	25%	75%
	Professor	1.00	7.00	13%	88%	11.20	74.55	13%	87%
2013	Research A	9.66	11.00	47%	53%	108.44	154.09	41%	59%
	Research B	1.00	4.00	20%	80%	25.60	56.90	31%	69%
	Lecturer	3.60	8.75	29%	71%	36.10	60.75	37%	63%
	Snr Lecturer	1.00	2.00	33%	67%	6.50	18.09	26%	74%
	Reader	1.00	5.00	17%	83%	10.00	37.20	21%	79%
	Professor	2.50	7.50	25%	75%	13.70	75.75	15%	85%





Firstly, we note that the percentages are based on small numbers of employees and therefore, are unreliable for spotting trends and subject to considerable fluctuations.

Although an imbalance between male and female staff is apparent, the overall proportion of female staff in our School has increased from 26% in 2009 to 33% in 2013. Generally, it decreases with seniority. Over the years, the largest difference is observed at Professorial level although the balance is improving and better than the St Andrews SET average.

The strong imbalance in Researchers A has gradually improved towards a balanced proportion (50% and 47% in 2012 and 2013 respectively). There is no persistent imbalance in Researchers B, with 50% female staff in years 2011 and 2012, although in 2013 it drops to 20%. (Note though, that this percentage is again derived from very small numbers.)

The percentage of female Lecturers appears to be relatively stable from year 2010 onwards, varying from 25% to 29% in 2013. The high of 40% in 2009 is based on, approximately, one more

female lecturer compared to subsequent years. The percentage of female Senior Lecturers is relatively stable from 2010 onwards, with 33% in 2012 and 2013. In 2009 there was no female Senior Lecturer in the School. The percentage of female Readers fluctuates over the last few years, with 29% and 17% in 2012 and 2013; these percentages are based on two and one female Readers respectively of a total of seven and six Readers (with both promoted to Professor).

Our School did not have a female Professor in 2009 and 2010, but there is a steady increase in this proportion, with 13% of female Professors in 2011 and 2012 and 25% in 2013.

Internal Benchmarking:

Comparing with male:female proportions in academic and research staff positions in SET Schools throughout the University of St Andrews (2009-2013) helps to put our data in context. In the St Andrews SET Schools, the percentage of women academic and research staff has increased from 25% to 33%. This agrees with the increase in our School over the last five years (from 26% to 33%). The proportion of female Research A and B members of staff has increased over the last 5 years; 31% to 41% and 21% to 31% respectively. There has been an increase at Lecturer grade (32% to 37%), an increase at Senior Lecturer (18% to 26%) and no increase at Reader level (21% to 21%). Female Professors increased from 10% to 15% over five years. Considering this:

- Our School follows the university trend with an increase over the last few years in the proportion of female staff.
- Our School also follows the overall university pattern where the largest imbalance between males and females remains at more senior levels.

In accordance with the latest overall University data available for SET Schools (2011), our School was fourth out of eight in terms of the proportion of female academic and research staff (with 28% in 2011).

External Benchmarking:

For comparative purposes, we also considered data from the 'London Mathematical Society DATA Report Nov 2013' (http://www.lms.ac.uk/sites/lms.ac.uk/files/files/reports/LMS-BTL-42Report.pdf). The data cover the period from 2006/2007 to 2011/2012. In the Mathematical Sciences the percentage of female academic staff is quite stable over this period, with an increasing from 16% to 18%. The current proportion of female academic staff in our School (33%) compares favourably to this. The LMS report also shows a nation-wide trend where the proportion of female staff is smaller at the Professorial level (7.4% at 2011/2012), whilst in the other levels it varies from 20% to 27%.

Table 9b) All Academic Staff Employed in the UK HE sector: Maths Source: HEIDI (HESA) Data

Academic	Total	Total Maths & Stats
Year	Female %	St Andrews (as at 31 Dec 2013)
2009/10	23.1%	25.9%
2010/11	23.2%	28.0%
2011/12	22.6%	27.2%
2012/13	23.0%	36.1%
2013/14	-	32.9%

Data from HEIDI & ECU (see Table 9b) showed a slightly higher ratio of female staff, about 23% (2009-2013) but the ratio of female staff in our School compares more favourably.

Action 3.10: Continue to monitor gender ratio of academic and research staff in our School.

(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.

Table 10) Total FTE of staff and Leaver by Gender of Academic and Research by Role as at 31 Dec: Leavers column = staff who have left the School and the University FTE column = number of staff who are currently employed within the School

		Female		Males			
Year	Role	FTE	Leavers (left the University)	Total Leave Rate	FTE	Leavers (left the University)	Total Leave Rate
2009	Research A	2.50	0.00	0%	12.00	2.00	17%
2003	Research B	5.50	0.00	0%	8.00	0.00	0%
	Lecturer	4.00	1.00	25%	6.00	1.00	17%
	Snr Lecturer	0.00	0.00	0%	2.00	0.00	0%
	Reader	2.00	0.00	0%	4.00	0.00	0%
	Professor	0.00	0.00	0%	8.00	0.00	0%
2010	Research A	3.00	1.00	33%	14.00	3.00	21%
	Research B	5.00	0.00	0%	3.00	1.00	33%
	Lecturer	2.50	0.00	0%	7.00	0.00	0%
	Snr Lecturer	1.00	0.00	0%	2.00	0.00	0%
	Reader	3.00	0.00	0%	4.00	0.00	0%
	Professor	0.00	0.00	0%	7.25	0.00	0%
2011	Research A	6.55	0.00	0%	17.00	2.00	12%
	Research B	3.00	2.00	67%	3.00	0.00	0%
	Lecturer	2.50	0.00	0%	8.75	0.00	0%
	Snr Lecturer	1.00	0.00	0%	3.00	0.00	0%
	Reader	2.00	0.00	0%	4.00	0.00	0%
	Professor	1.00	0.00	0%	7.00	0.00	0%
2012	Research A	11.80	0.00	0%	12.00	4.00	33%
	Research B	2.00	0.00	0%	2.00	1.00	50%
	Lecturer	3.60	0.00	0%	9.75	0.00	0%
	Snr Lecturer	1.00	0.00	0%	2.00	0.00	0%
	Reader	2.00	0.00	0%	5.00	0.00	0%
	Professor	1.00	0.00	0%	7.00	0.00	0%
2013	Research A	9.66	3.00	31%	11.00	2.00	18%
	Research B	1.00	0.00	0%	4.00	0.00	0%
	Lecturer	3.60	0.00	0%	8.75	2.00	23%
	Snr Lecturer	1.00	0.00	0%	2.00	0.00	0%
	Reader	1.00	0.00	0%	5.00	0.00	0%
	Professor	2.50	0.00	0%	7.50	0.00	0%

Irrespectively of gender, the majority of leavers are Researchers A and B, as these positions are often not permanent. With regard to gender, there are significant fluctuations in percentages from one year to another, due to the small numbers of staff involved, making the data unreliable for confirming trends. For example in 2011, we observe a larger proportion of females leaving in the Research A and B categories (67% females vs 12% males), whilst in 2012 only male Research A and B staff left (33% and 50%).

Action 3.11: We will monitor whether any gender biased becomes apparent in staff turnover data.

(792 words)

4. Supporting and advancing women's careers: maximum 5000 words (*Total: 4693 words*)

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.
- (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.

As a research-active school, most staff turnover takes place at the 'Research A' (and to a lesser extend at 'Research B') grade. Table 11 shows that there were 30 people recruited to the department in 2010 to 2013 and of these, ~37% were women. All women but one were appointed to the role of Research A. No new appointments to senior grades (senior lecturer, reader, professor) were made in the department until 2013 when two (50% FTE) professors were appointed (one male and one female), although internal promotions did increase the number of females holding senior grades. Within the Research A grade, ~43% of appointments were to women; this is a higher proportion of appointments to women than in other SET departments within the university (using data from 2010 and 2011).

Table 11) New Staff started by Gender for Academic and Research Staff as at 31 Dec:

Year	Post	Female	Male	Total
2010	Research A	3	1	4
	Research B		1	1
	Lecturer		1	1
2011	Research A	3	8	11
	Research B		1	1
	Lecturer		2	2
2012	Research A	4	2	6
2013	Research A		2	2
	Professor	1	1	2
TOTAL		11	19	30

Since April 2010, the School has been partly using the online HR 'E-Recruitment system', however a more consistent use of this facility is required. Table 12 illustrates that the success rate of female applicants compared to males is generally higher so there is certainly no evidence of females being disadvantaged by a recruitment bias.

The main problem is that the overall number of female applicants is rather small, especially at more senior levels.

To positively address this, the School has endorsed the University positive action initiative for all vacancies for academic and support staff where there is a low number of females in post, to state within the adverts that the School welcomes applications from women who are underrepresented in this post. The Athena SWAN logo is also advertised and the Head of School can be contacted by the applicant for information on what the School is doing to ensure it is an inclusive working environment for women and those with caring responsibilities.

Action 4.1a: The school will step up efforts to ensure that applications are made via the online HR 'E-Recruitment system'.

Action 4.1b: We plan to make the family-friendly culture within the School more visible to potential applicants by: (i) continuing to improve the School's website, in particular by increasing the visibility of female staff (as role models) and making relevant policies and practices more visible; (ii) including a statement on the family-friendly ethos within the School in our recruitment material (job adverts and further particulars).

Action 4.1c: To determine the impact of these measures, we will continue to monitor improvement and application success rates and gender ratio of applications will be reported annually to the School's Staff Council.

Action 4.1d: The School, along with other Schools working on Athena SWAN at the University, has recognised that staff who have been named on grants are also part of the "New Starts" data. As an action, the School will be monitoring the gender profile of staff recruited who are named on grants to help determine trends and further actions.

Action 4.1e: Support the University for Positive Action in recruitment.

Table 12) Application/Offers made success rate by Gender for Academic and Research Staff as at 31 Dec via the University E-Recruitment online system:

		P	Applications			Offers Made			Success Rate		
Year	Post	F	М	Total	F	М	Total	F	M	Total	
2010	Research A	9	22	31	1	2	3	11.1%	9.1%	9.7%	
	Research B	7	8	15	1	0	1	14.3%	0.0%	6.7%	
	Lecturer	13	107	120	0	2	2	0.0%	1.9%	1.7%	
2011	Research A	46	130	176	5	7	12	10.9%	5.4%	6.8%	
	Lecturer	4	28	32	0	1	1	0.0%	3.6%	3.1%	
2012	Research A	4	1	5	1	1	2	25.0%	100.0%	40.0%	
	Lecturer	0	4	4	0	0	0	-	0.0%	0.0%	
2013	Research A	15	30	45	2	2	4	13.3%	6.7%	8.9%	
	Professor	2	18	20	0	0	0	0.0%	0.0%	0.0%	

	Applications			0	Offers Made			Success Rate		
Year	F	M	Total	F	М	Total	F	М	Total	
2010	29	137	166	2	4	6	6.9%	2.9%	3.6%	
2011	50	158	208	5	8	13	10.0%	5.1%	6.3%	
2012	4	5	9	1	1	2	25.0%	20.0%	22.2%	
2013	17	48	65	2	2	4	11.8%	4.2%	6.2%	

(480 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.

Table 13) Applications for promotion and success rate by Gender as at 31 Dec:

ibic 13)	Applications for	promotion	and success i	ate by delia	ci as at si be				
			Female			Male			
				Success			Success		
Year	Role	Successful	Unsuccess	Rate	Successful	Unsuccess	Rate		
2009	Snr Lecturer	0	1	0%	0	1	0%		
	Reader	0	1	0%	1	1	50%		
2010	Snr Lecturer	1	0	100%	1	0	100%		
	Reader	0	0	0%	0	1	0%		
	Professor	0	0	0%	1	0	100%		
2011	Reader	0	0	0%	1	0	100%		
	Professor	1	0	100%	0	2	0%		
2012	Reader	0	0	0%	1	0	100%		
	Professor	0	0	0%	0	0	0%		
2013	Snr Lecturer	0	1	0%	0	2	0%		
	Reader	0	0	0%	0	1	0%		
	Professor	1	0	100%	0	1	0%		
	Overall	3	3	50%	5	9	36%		

Table 13 summarises the applications for promotions and success rate for male and female staff. Since 2008, 3 staff members in the School have been promoted to Personal Chairs, 3 to Readerships and 2 to Senior Lectureships We find no evidence of bias against women in the promotions outcomes. In fact, in recent years, the promotions success rate at all levels is higher for females than for male staff. The total number of applications for promotion (6 for females, 14 for males) is in line with the general staff gender ratio.

The promotions panels are appointed by the University and are of mixed gender. The timetable for promotions is set by the University, with the annual closing date for applications usually near the end of January. Once the dates have been announced, the HoS invites staff members who wish to apply for promotion to come forward. In addition, HoS consults with professorial staff in the School to identify potential applicants amongst staff members, to avoid HoS patronage. These discussions have a longer-term, strategic aspect to them, in that staff suitability for promotion is

assessed for the subsequent years as well. Senior staff will often assist applicants preparing the best possible application and previously successful applications are often shared. Unsuccessful applications receive formal feedback from the promotions panel and informal feedback from HoS.

Action 4.2a: We will continue to monitor the uptake of the annual appraisal for all staff. **Action 4.2b:** HoS will keep a log of meetings with staff unsuccessful in their promotion application.

(254 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.

As stated on the School's website (http://www-maths.mcs.st-andrews.ac.uk/equality.shtml) the School is aligned with the University's Equality and Diversity Inclusion Policy (http://www.st-andrews.ac.uk/staff/policy/hr/equalitydiversityinclusion). School staff understands, furthered by the online training, that there is an institutional legal obligation to fully practice equality of opportunity throughout its recruitment and selection process.

In November 2012 the University's HR Unit published its updated and more robust "Inclusive Recruitment Guide" (http://www.st-andrews.ac.uk/hr/edi/inclusiverec). The online guidance has been created in consultation with equality groups; feedback from ECU; alignment with the Equality and Human Rights Commission Equality Act (2010) Statutory Code of Practice for Employment; plus factors in the good practice guidance which was published by the UK Resource Centre for Women in SET.

Our Head of School has met with the E&D Officer to go through the University's Equality & Diversity Inclusion Policy and the remit of the online Inclusive Recruitment Guide was provided. As an action, the Head of School has requested completion data on the number of staff who have completed the one-day Recruitment & Selection course provided by CAPOD (Centre for Academic, Professional and Organisational Development), in addition to sending communication to staff on registering to book onto the course. Note that an overview on discrimination in recruitment has been provided to all staff who have completed the online Diversity in the Workplace- HE module.

The School's webpage provides information on the above policies.

Action 4.3: The School has committed to undertake training on how to utilise the online 'Inclusive Recruitment Guide', to help ensure that gender equality is practiced throughout the stages of the recruitment process.

(261 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.

Staff at the School of Mathematics & Statistics can take part in the St Andrews - Dundee "Cross-Institutional Early Career Academics" mentoring scheme. A predecessor of this scheme was set up in 2005 and was originally only open to female academics. However, since 2008, the scheme is accessible to all early career academics. Senior academic staff are regularly invited to take part in the scheme as mentors. The University's mentoring work was recognised by the ECU as an example of good practice in their 2012 paper Mentoring: "Progressing Women's' Careers in HE." In addition, new Academic staff are allocated a mentor to guide them and help them settle into life in the School and the School has a strong tradition of senior staff "informally" mentoring their more junior colleagues.

Leadership training is available to all staff at the University's Centre for Academic, Professional and Organisational Development (CAPOD).

Action 4.4: Monitor participation (of both mentees and mentors) in the cross-institutional mentoring scheme.

(161 words)

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?

The University provides a range of support for the professional and career development of its research staff via CAPOD. In our recent 'Staff Inclusion Gender Survey', only 5% of Staff reported that they were not aware of how to access professional training opportunities.

Appraisal is done through the University's "Q6" scheme, which covers all aspects of career development. The Head of School (or another senior member of staff if a preference has been expressed by the appraisee) interviews academic staff. Note that these are not formal interviews but discussions during which staff have the opportunity to reflect and consider future options. The Q6 interviews are entirely confidential and their content is not reported to senior university management, unless, and with mutual agreement, very specific issues have been raised. As staff can request a senior member of the School other than HoS to conduct their Q6 appraisal, female staff have the opportunity to be interviewed by a female senior colleague if they wish. Up until 2013, the School ran Q6 as an 'opt-in' scheme, i.e. staff were invited (by an email from the

HoS to all staff) to arrange for appraisal if they wished. As one of its first actions, the E&D committee decided to change this to an 'opt-out' scheme to make sure less confident members of staff do not miss out as we recognize there might be gender and/or cultural issues at play.

In addition to Q6, REF interviews were conducted during the 2012-2013 with all of the School's academic members of staff. The interview panel was mixed-gender and prior to the interviews taking place, all panel members took mandatory Equality & Diversity training.

At the University of St Andrews, promotion applications are initiated by the candidates themselves. This avoids patronage by the HoS or the School's Management Group. However, to avoid that lack of confidence, gender or culture holds potential candidates back, the HoS also holds extensive discussions with professorial staff in order to assess which colleagues should be encouraged to apply for promotion in that and/or subsequent years.

As part of the promotion application, the HoS is required by the University to provide a detailed assessment of each applicant. Again, as part of this task, HoS will consult with senior colleagues to gain broad information about all aspects of the applicant's academic career.

Action 4.5a: We will set out a timescale for Q6 to ensure reviews are carried out on a regular basis, suggesting an annual review for junior staff but perhaps a review every second year for senior staff.

Action 4.5b: We will monitor the effect of changing the Q6 appraisal scheme from 'opt-in' to 'opt-out'.

(440 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?

The University of St Andrews has a university-wide Staff Induction programme which all new staff attend. This induction programme includes a session on Diversity Awareness training, which outlines the responsibilities of all staff towards non-discrimination on the grounds of sex/gender, pregnancy and maternity and all 'protected characteristics'. The Staff Induction (http://www.st-andrews.ac.uk/staff/ppd/newstaffinduction/) provides details of how to apply for flexible working and family-friendly policies.

During 2013/14, the School has been re-training itself through the new mandatory 'Online Diversity in the Workplace – HE' module (http://www.st-andrews.ac.uk/hr/edi/training). Building upon previous training, it ensures that all staff fully understand latest examples relating to gender and carers bias. It is monitored by HR and the chair of the School's E&D committee and promoted by the Head of School in staff meetings.

Action 4.6a: The Head of School will ensure that all new staff attend the University Staff Induction Programme.

Action 4.6b: The chair of the School's E&D committee will monitor completion rates of the 'Online Diversity in the Workplace – HE' training module and will report completion rates to the Head of School and Staff Council.

(178 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.

All our PhD students are allocated a second supervisor (and the students could request a 2nd supervisor of a specific gender) but the School does currently not operate a formal personal tutor scheme for PhD students. However, the PhD student population is about 50% female and each of the School's divisions has a number of female staff, providing everyday opportunity for informal conversation. Apart from regular, individual meetings with supervisors, PhD students receive feedback at their annual progression meeting.

All postgraduate students have access to the GRADskills programme, which includes a number of workshops and seminars that are particularly relevant to female researchers. The GRADskills programme provides postgraduate researchers with opportunities to develop their transferable skills, both broadening and enhancing their future employment prospects. Of particular academic relevance are the postgraduate X-Change seminars organised by GRADskills which gives postgraduate students the opportunity to present their work to an interdisciplinary audience or to chair a research seminar.

During the last five years, there have been 3 pregnant PhD students. All 3 had their studentships extended and completed their PhDs. For administrative reasons, one of these PhD student was registered both as a student and a member of staff. In this case, the pregnancy-related administration revealed some communication issues between the University's HR department (responsible for staff) and Registry (responsible for students).

Action 4.7a: We will monitor the gender ratio of our PG committee and make PhD students aware that it is possible to request a female member of staff to conduct their annual review. **Action 4.7b:** We will make supervisors aware that in some cases, both HR and Registry have to be informed if a student is planning to take maternity/paternity/adoption leave.

(281 words)

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.

The School has a limited number of committees and the senior administrative roles are appointed by the Head of School. Senior roles within the School are: Head of School, Deputy Head of School, Director of Teaching, Director of Research, Director of Postgraduate Affairs and the Admissions Officer. At the time of writing, two of these six roles are held by female members of staff. In addition, each of the three divisions within the School has its own Head of Division. Currently, all three are male but until very recently, two out of the three divisions had a female Head of Division.

Table 14) Representation on Groups/Committees by Gender for Academic/Research staff as at 31 Dec:

Name of Group/ Committee	Meeting frequency	F (%)	M (%)						
Committee	rrequericy	2010		2011		2012		2013	
School Management	1 per 2 months	1	6	1	6	2	5	1	6
UG Teaching Comm.	1 per 2 months	1	4	1	4	1	5	1	4
Research Comm.	2 per year	0	4	0	4	0	4	0	4
PG Comm.	4 per year	0	4	0	4	0	4	0	4
Staff-Student Council	4 per year	2	5	2	6	2	5	2	5

The main committees in the School are the School Management Group, the Undergraduate Teaching Committee, the Research Committee, the Post-Graduate Committee and Staff-Student Council. The gender balance on these committees is reflected in Table 14. Note that the Research Committee has 1 female and 3 male members as of Jan 2014 as the Director of Research, who chairs this committee, is currently female. In addition, there is the E&D committee as described in Section 2(a) and Staff Council, which consists of all the Academic Staff within the School and meets roughly twice per year.

Membership of all the above committees is determined by the Head of School and based on factors such as seniority, workload, balance across the three divisions, gender balance and personal circumstances when relevant. In our recent "Gender Inclusion Staff Survey", nearly 70% of staff members felt that gender did *not* affect the opportunity to join decision-making committees in the School, with a further 20% neither agreeing nor disagreeing. In addition, 80% of staff members believe that there is gender equality in the School, with a further 15% neither agreeing nor disagreeing.

Survey Feedback from Female & Male staff (Oct/Nov 2013):

23. I believe there is gend	23. I believe there is gender equality within the School:									
Strongly agree:		30.9%	17							
Agree:		49.1%	27							
Neither agree or disagree:		14.5%	8							
Disagree:		3.6%	2							
Strongly disagree:	0	1.8%	1							

Action 4.8: Promote female representation on the above committees, in particular the Post-Graduate Committee.

(300 words)

(ii) Female:male ratio of academic and research staff on fixed-term contracts and openended (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.

Table 15 shows the percentage of females on fixed term contracts in the School of Mathematics & Statistics, as well as in the St Andrews SET Schools overall. In general, the number of females on fixed term contracts in the School is comparable to the SET Schools in St Andrews overall.

Again, it has to be noted that the numbers involved are relatively small and hence small changes have a disproportionally large effect on the percentages.

Table 15) Analysis of Fixed Term Contracts for Academic and Research staff as at 31 Dec:

		Math	ematics & S	Statistics	All St An	drews SET S	Schools
Year	Role	Female	Male	% Female	Female	Male	% Female
2009	Research A	1.50	9.00	14%	55.88	115.55	33%
	Research B	3.50	7.00	33%	12.00	34.83	26%
	Lecturer	0.00	0.00	0%	3.00	1.41	68%
	Snr Lecturer	0.00	0.00	0%	0.00	0.67	0%
	Reader	0.00	0.00	0%	0.00	0.00	0%
	Professor	0.00	0.00	0%	0.00	0.37	0%
2010	Research A	2.00	11.00	15%	55.00	115.75	32%
	Research B	3.00	2.00	60%	12.60	25.20	33%
	Lecturer	0.00	0.00	0%	3.00	1.75	63%
	Snr Lecturer	0.00	0.00	0%	0.00	0.66	0%
	Reader	0.00	0.00	0%	0.00	0.00	0%
	Professor	0.00	0.25	0%	0.00	0.45	0%
2011	Research A	5.55	14.00	28%	66.45	124.15	35%
	Research B	1.00	1.00	50%	12.60	29.60	30%
	Lecturer	0.00	0.00	0%	1.00	3.00	25%
	Snr Lecturer	0.00	0.00	0%	0.00	0.33	0%
	Reader	0.00	0.00	0%	0.00	0.00	0%
	Professor	0.00	0.00	0%	0.20	2.75	7%
2012	Research A	11.80	8.00	60%	78.10	119.05	40%
	Research B	0.00	0.00	0%	10.60	21.35	33%
	Lecturer	0.00	2.00	0%	3.00	5.00	38%
	Snr Lecturer	0.00	0.00	0%	0.00	0.61	0%
	Reader	0.00	0.00	0%	0.00	0.20	0%
	Professor	0.00	0.00	0%	0.20	3.75	5%

2013	Research A	9.66	9.00	52%	96.14	130.89	42%
	Research B	0.00	1.00	0%	16.60	22.00	43%
	Lecturer	0.00	2.00	0%	7.00	6.00	54%
	Snr Lecturer	0.00	0.00	0%	0.00	0.19	0%
	Reader	0.00	0.00	0%	0.00	0.20	0%
	Professor	0.50	0.50	50%	0.70	3.05	19%

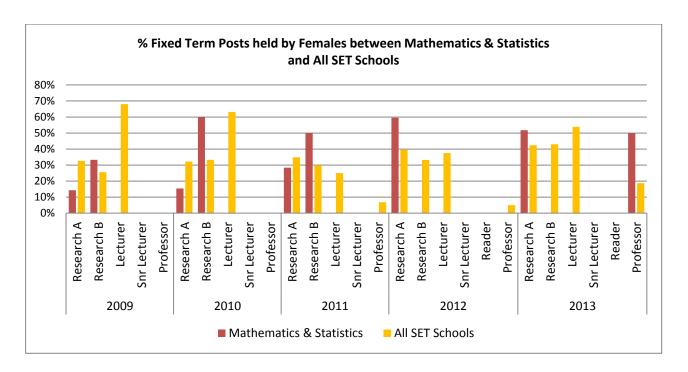


Table 16 shows the percentage of female staff on Standard contracts. The number of females in the School of Mathematics & Statistics is relatively high compared to the SET Schools in St Andrews overall.

Table 16) Analysis of Standard Term/Open Ended Contracts as at 31 Dec:

		Math	ematics & S	Statistics	All St An	drews SET S	Schools
Year	Role	Female	Male	% Female	Female	Male	% Female
2009	Research A	1.00	3.00	25%	11.80	32.00	27%
	Research B	2.00	1.00	67%	5.60	29.50	16%
	Lecturer	4.00	6.00	40%	15.00	37.00	29%
	Snr Lecturer	0.00	2.00	0%	5.00	21.70	19%
	Reader	2.00	4.00	33%	9.00	34.20	21%
	Professor	0.00	8.00	0%	8.00	69.70	10%
2010	Research A	1.00	3.00	25%	10.50	28.00	27%
	Research B	2.00	1.00	67%	5.60	30.90	15%
	Lecturer	2.50	7.00	26%	18.60	39.00	32%
	Snr Lecturer	1.00	2.00	33%	6.00	22.03	21%
	Reader	3.00	4.00	43%	10.00	34.20	23%
	Professor	0.00	7.00	0%	9.00	70.70	11%

2011	Danasanda A	1.00	2.00	250/	10.00	22.00	200/
2011	Research A	1.00	3.00	25%	10.00	23.00	30%
	Research B	2.00	2.00	50%	7.80	30.70	20%
	Lecturer	2.50	8.75	22%	19.40	43.95	31%
	Snr Lecturer	1.00	3.00	25%	6.00	23.90	20%
	Reader	2.00	4.00	33%	9.00	31.00	23%
	Professor	1.00	7.00	13%	11.00	71.90	13%
2012	Research A	0.00	4.00	0%	11.00	28.20	28%
	Research B	2.00	2.00	50%	11.00	32.90	25%
	Lecturer	3.60	7.75	32%	23.90	48.95	33%
	Snr Lecturer	1.00	2.00	33%	7.00	20.90	25%
	Reader	2.00	5.00	29%	11.00	32.20	25%
	Professor	1.00	7.00	13%	11.00	70.80	13%
2013	Research A	0.00	2.00	0%	12.30	23.20	35%
	Research B	1.00	3.00	25%	9.00	34.90	21%
	Lecturer	3.60	6.75	35%	29.10	54.75	35%
	Snr Lecturer	1.00	2.00	33%	6.50	17.90	27%
	Reader	1.00	5.00	17%	10.00	37.00	21%
	Professor	2.00	7.00	22%	13.00	72.70	15%

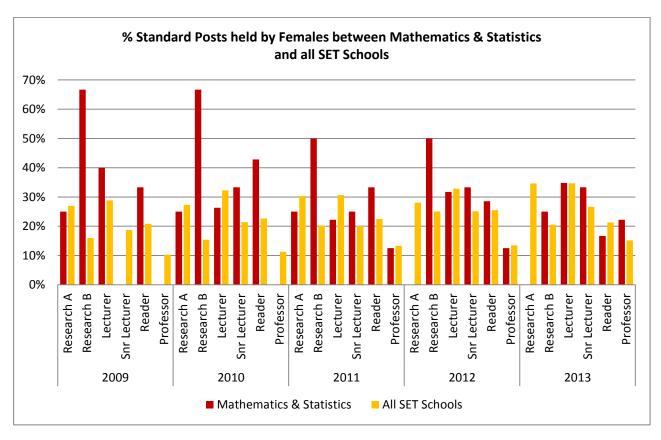


Table 17 shows number and grade of staff leaving the School (and the University), by gender. In addition, the number of FTE staff is shown. Numbers in this table vary substantially from year to year (and the percentages are somewhat misleading due to the small numbers involved) but there does not seem to be an indication of a gender bias in staff (mostly FTC Research A) leaving.

For example, in 2011, two female but no male Research B staff members left. However, in the following year (2012), four male but no female Research A staff members left.

Table 17) Leaver FTE by Gender for Academic and Research by role on Fixed/Standard Term Contracts as at 31 Dec. (Leavers column = staff who have left the School and the University; FTE column = number of

stair will are carreinly employed within the school	staff who are	currently	employed	I within the School)
---	---------------	-----------	----------	----------------------

			Fen		<u>, </u>		Ma	ale	
			l .		Total				Total
		FTC	STD		Leave	FTC	STD		Leave
Year	Role	Leavers	Leavers	FTE	Rate	Leavers	Leavers	FTE	Rate
2009	Research A	0.00	0.00	2.50	0%	2.00	0.00	12.00	17%
	Research B	0.00	0.00	5.50	0%	0.00	0.00	8.00	0%
	Lecturer	1.00	0.00	4.00	25%	0.00	1.00	6.00	17%
	Snr								
	Lecturer	0.00	0.00	0.00	0%	0.00	0.00	2.00	0%
	Reader	0.00	0.00	2.00	0%	0.00	0.00	4.00	0%
	Professor	0.00	0.00	0.00	0%	0.00	0.00	8.00	0%
2010	Research A	1.00	0.00	3.00	33%	3.00	0.00	14.00	21%
	Research B	0.00	0.00	5.00	0%	1.00	0.00	3.00	33%
	Lecturer	0.00	0.00	2.50	0%	0.00	0.00	7.00	0%
	Snr								
	Lecturer	0.00	0.00	1.00	0%	0.00	0.00	2.00	0%
	Reader	0.00	0.00	3.00	0%	0.00	0.00	4.00	0%
	Professor	0.00	0.00	0.00	0%	0.00	0.00	7.25	0%
2011	Research A	0.00	0.00	6.55	0%	2.00	0.00	17.00	12%
	Research B	2.00	0.00	3.00	67%	0.00	0.00	3.00	0%
	Lecturer	0.00	0.00	2.50	0%	0.00	0.00	8.75	0%
	Snr								
	Lecturer	0.00	0.00	1.00	0%	0.00	0.00	3.00	0%
	Reader	0.00	0.00	2.00	0%	0.00	0.00	4.00	0%
	Professor	0.00	0.00	1.00	0%	0.00	0.00	7.00	0%
2012	Research A	0.00	0.00	11.80	0%	4.00	0.00	12.00	33%
	Research B	0.00	0.00	2.00	0%	1.00	0.00	2.00	50%
	Lecturer	0.00	0.00	3.60	0%	0.00	0.00	9.75	0%
	Snr								
	Lecturer	0.00	0.00	1.00	0%	0.00	0.00	2.00	0%
	Reader	0.00	0.00	2.00	0%	0.00	0.00	5.00	0%
	Professor	0.00	0.00	1.00	0%	0.00	0.00	7.00	0%
2013	Research A	3.00	0.00	9.66	31%	1.00	1.00	11.00	18%
	Research B	0.00	0.00	1.00	0%	0.00	0.00	4.00	0%
	Lecturer	0.00	0.00	3.60	0%	1.00	1.00	8.75	23%
	Snr								
	Lecturer	0.00	0.00	1.00	0%	0.00	0.00	2.00	0%
	Reader	0.00	0.00	1.00	0%	0.00	0.00	5.00	0%
	Professor	0.00	0.00	2.50	0%	0.00	0.00	7.50	0%

(207 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?

A substantial number of committee members are selected by role rather than by individual. These leadership roles, as well as other committee members, are allocated on an annual basis, usually during Jul-Aug. This allows for a regular review of committee membership and close monitoring of committee overload for female members of staff.

The number of decision-making committees, outside Departments/Schools, at the University of St Andrews is relatively low. Currently, the School has female representatives on the Research Forum and Academic Council. In addition, female members of staff are, or recently have been, members of influential (research) committees (such as grants panels, fellowship panels, education committees, the Council of the London Mathematical Society and editorial boards).

(115 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. 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.

Survey Feedback from Female & Male staff (Oct/Nov 2013):

Survey recubuck from remain a mane stay, (See, Nov 2025).							
7. I feel that the type of work allocated to me is appropriate to my role:							
Strongly agree:		45.8%	27				
Agree:		50.8%	30				
Neither agree or disagree:	0	3.4%	2				
Disagree:		0.0%	0				
Strongly disagree:		0.0%	0				

In order to achieve "fairness" as far as possible, workload is continuously monitored and, if necessary, adjusted by the HoS and the Heads of the three divisions within the School. Teaching is allocated on a divisional level but in general, levels of teaching load are fairly even between the three divisions. Administrative tasks are allocated by the HoS in an annual review of the "Who Does What". The workload table is emailed to all staff, accompanied by a document describing the "expected" workloads for staff with different levels of seniority.

Most of the administrative tasks in the School are fairly light or intermittent, with a few notable exceptions namely the Director of Teaching, Director of Research, Post-Graduate Director and the Admissions Officer (as well as the HoS and the Deputy HoS). In addition, there are the three Heads of the divisions and the Advisors of Studies. Although there is no general rule, these major tasks typically rotate on ta 3-5 year cycle. At present, the Director of Research, the Admissions Officer and 3 of the Advisors of Studies are female.

When allocating the more burdensome (and generally more senior) administrative roles, several considerations are carefully tensioned against one another such as suitability for the role, seniority, division, and gender, to some extent. With regards to gender, in particular, overburdening the small number of more senior female staff is monitored closely. Administrative service is readily recognised as an integral part of Academic workload in the University's promotions procedures.

Action 4.9a: The School will continue to monitor workload on an ongoing basis. **Action 4.9b:** We will consider whether a more refined workload model is desirable and will identify examples of good practice workload models both within the University of St Andrews and from other Mathematics Departments around the country through LMS.

(299 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.

Core hours are considered to be 10am - 3pm and as far as possible, meetings are organised within this time frame. This includes most, but not all, research seminars. However, in our recent "Gender Inclusion Staff Survey", staff did not show a strong preference for meetings to be scheduled during core hours (37% preferred meetings to be scheduled during these times, 30% fell into the 'neither agree nor disagree' category and about 33% disagreed with scheduling meetings during these times). There was no significant gender bias in these results. The School is committed to holding its key large meetings within the core hours. In particular, it has been decided to move Staff Council meetings from their former slot at 4-5pm to either 12-2pm or 1-3pm in one of three fixed days each semester. For the smaller committee meeting, core hours are encouraged, but the actual timing is left to the consensus of the committee members.

Survey Feedback from Female & Male staff (Oct/Nov 2013):

18. I would prefer that meetings be scheduled between 10am and 3pm:						
Strongly agree:		8.8%	5			
Agree:		28.1%	16			
Neither agree or disagree:		29.8%	17			
Disagree:		26.3%	15			
Strongly disagree:		7.0%	4			

In addition, as described below in Section (b)(ii), Academic staff are free to work from home (taking into account teaching and other commitments) and there are no formal working hours in the School. The University's 'Event and Meeting Inclusion Guide' is included on the School's webpages (http://www-maths.mcs.st-andrews.ac.uk/equality.shtml).

Regular social gatherings includes an annual meeting to welcome new staff (usually held at 5pm), a School Christmas Lunch and a weekly invitation to 'coffee & biscuits' at 4pm on Fridays. In addition, coffee is available to staff at 11am every day and many staff members gather daily in the coffee room at this time for a brief conversation.

Action 4.10: For those seminars and meetings not currently scheduled during core hours, we will ask the relevant convenors to consider varying the time of the meetings so that at least a certain proportion takes place inside core hours.

(300 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.

Daily life in the School of Mathematics & Statistics is characterised by a friendly and relatively informal atmosphere. Academic staff, support staff and postgraduate students generally use first names, without reference to titles. Many of the staff also interact outside office hours, for example, going out for a walk at the weekend or a drink on a Friday evening. The Head of School, along with many staff members, operates an open-door policy. Staff can often speak to the Head of School immediately or can arrange a meeting at a short notice.

Most people in the department are aware of each other's family situation and staff will often ask after the well-being of children and other relatives. In fact, as St Andrews is a small town, many of the children attend the same nursery or school. Colleagues are generally very understanding about the difficulties of combining work with bringing up a young family. Unexpected absences due to ill children are often covered by colleagues on an ad-hoc basis and it is not uncommon for staff to bring their children into the School for a few hours if the need arises. This is always done with the greatest mutual respect. In addition, our Equality webpage (http://www.mcs.st-and.ac.uk/equality.shtml) includes links to information on 'Carers, Childcare and School Holidays' and 'Health & Wellbeing at Work' initiatives.

From our Gender Inclusion Staff Survey, less than 5.5% (3 individuals = 1 male and 2 females) felt that gender equality has not yet been reached and only 2 people (both female) thought social events were not equally welcoming to men and women. More than 90% of the respondents felt that their line manager or supervisor would deal effectively with issues of gender-based harassment (1 female and 3 males disagreed). Although there are gender differences in these replies the numbers are too small to be significant.

An update from the Athena SWAN SAT team is a standing agenda item on the School's Staff Council meeting.

Action 4.11: The School has committed to repeat our Staff Survey in April 2015 and at regular intervals. The SAT will analyse and discuss positive/negative feedback to form actions to ensure that the gender difference in replies is acted upon to ensure the School is inclusive.

(357 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.

Members of the School take part in a wide range of outreach activities, ranging from lectures for the general public to talks and activities in local schools and even a local nursery and participation in local science festivals. The School's current Outreach coordinator is a female member of Academic staff. Although the outreach activities are often coordinated by an academic member of staff, they are always supported by a (voluntary) mixed-gender team of postgraduate students and postdoctoral research assistants.

Since 2008, two staff members, Profs De Moortel (F) and Neukirch (M), have been responsible for the School's contribution to 'Space School'. This initiative, involving most of the schools in the Science Faculty, is part of the University's Aspire Widening Access Scheme and is aimed at primary school children aged 10. Prof De Moortel (F) has just been awarded the Lord Kelvin Award Lecture 2014 to be delivered at the British Science Festival (Birmingham, 6-11 Sept 2014).

Dr Roney-Dougal (F) regularly takes part in radio broadcasts which popularise Maths and Science in general such as 'The Infinite Monkey Cage' (Dec 2013) and a number of editions of 'In Our Time' (see http://www-groups.mcs.st-and.ac.uk/~colva/other.html).

Outreach is considered a standard component in Academic Staff workload and recognised in the University's promotion process.

Action 4.12: We will monitor and address male/female participation ratios in outreach activities.

(219 words)

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.

Table 18 clearly shows that all of the School's academic and research staff return back to work after being on maternity leave. A link has been included on the School's website (http://www.mcs.st-and.ac.uk/equality.shtml) to the HR Family Friendly policies, which include the

Maternity Leave policy as well as the Paternity, Adoption and Parental Leave and Flexible Working policies.

In addition, there are links to 'Carers, Childcare and School Holidays' information and the Childcare Voucher scheme in which the University of St Andrews takes part. As of 31 Dec 2013, 6 academic staff members are taking part in the University Childcare voucher scheme (http://www.st-andrews.ac.uk/hr/salariesandpensions/childcarevouchers/).

Action 4.13a: Ensure that the link on the School's webpages to the HR Maternity Leave policy and Family Friendly policies is updated regularly to include any future changes.

Table 18) Academic/Research Staff who started Maternity Leave (as at 31 Dec 2013) by Headcount:

	Maternity Leave Year (Start)					Returned	Return	
Role	2009	2010	2011	2012	2013	Total	in post	Rate %
Research A	0	1	1	0	0	2	2	100%
Research B	1	0	0	0	0	1	1	100%
Lecturer	1	0	1	0	0	2	2	100%
Snr Lecturer	0	0	0	0	0	0	•	-
Reader	0	1	0	0	0	1	1	100%
Professor	0	0	0	0	0	0	-	-
Total	2	2	2	0	0	6	6	100%

Table 19) School staff who take part in the childcare voucher scheme (as at 31 Dec 2013) by Headcount:

Figures as at:	Acad	demic	Academic Teaching	Academic Research	Managerial Specialist & Administrative	Clerical	Technical	Total
	AC	AY	AO	AR	AD	CG	TG	
Jul-11	3	0	0	4	0	0	0	7
Dec-11	5	0	0	2	0	0	0	7
Jul-12	6	0	1	0	0	0	0	7
Dec-12	6	0	0	1	0	0	0	7
Jul-13	5	0	0	0	0	0	0	5
Dec-13	6	0	0	0	0	0	0	6

(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.

Rates of paternity leave have been very low over the last 5 years with only two fathers requesting and receiving paternity leave. Following feedback from the School's 'Gender Staff Inclusion Survey', the link to the HR Paternity, Adoption and Parental Leave policy has been included on the School's webpages (http://www.mcs.st-and.ac.uk/equality.shtml).

Action 4.13b: Ensure that the link on the School's webpages to the HR Paternity, Adoption and Parental Leave policy and Family Friendly policies is updated regularly to include any future changes.

Table 20) Academic and Research Staff on Paternity Leave (as at 31 Dec) by Headcount:

	Paternity Leave Year (Start)						Returned	Return
Role	2009	2010	2011	2012	2013	Total	in post	Rate %
Research A	0	0	0	0	0	0	-	-
Research B	0	1	0	0	0	1	1	100%
Lecturer	0	0	0	1	0	1	1	100%
Snr Lecturer	0	0	0	0	0	0	0	-
Reader	0	0	0	0	0	0	0	-
Professor	0	0	0	0	0	0	0	-
Total	0	1	0	1	0	2	2	100%

(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.

The number of academic staff requesting flexible working arrangements has been consistently low. A number of informal arrangements for a period of time have been made over the past few years (see e.g. Ineke De Moortel's case study) and one member of staff has benefitted from a phase return to work after a period of illness.

Action 4.13c: Ensure that the link on the School's webpages to the HR Family Friendly policies (which includes the Flexible Working Policy) is updated regularly to include any future changes.

(297 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.

In a sense, all the academic staff in the School benefit from flexible working hours (outside of teaching commitments). Spending some research time outside of one's office is not uncommon, most usual alternative location being home. There is no formal system to follow, but there is an expectation that staff will inform the School secretary. The Head of School and other senior staff frequently suggest this as one of the strategies for dealing with work-related stress, time-management issues etc. In the case of one member of staff returning from a period of sick leave, an explicit encouragement was given to spend at least one day a week doing research at home as part of a phased return.

Some members of staff with young families stop working in the office earlier in the day, to collect children from school/playgroup, and then make this time up in the evening. The practice of course has some negative sides as well: some colleagues make more use of the working-from-home option than others, and this creates a perception of imbalance in sharing the burden of dealing

with issues that arise in the day-to-day operation of the School. We are mindful that gender and/or cultural issues might come into play here. A number of support staff on part-time contracts also enjoy flexible working hours, which is managed through an informal pool of secretaries and computing officers.

In our recent "Gender Inclusion Staff Survey", only 3.4% of Staff members felt that their supervisor or line manager would not be supportive of flexible working.

Survey Feedback from Female & Male staff (Oct/Nov 2013):

22. I feel that my line manager/supervisor is supportive of flexible working:						
Strongly agree:		52.5%	31			
Agree:		30.5%	18			
Neither agree or disagree:		13.6%	8			
Disagree:	0	1.7%	1			
Strongly disagree:	0	1.7%	1			

Action 4.14a: We will monitor any real and perceived gender imbalance in informal flexible working (mainly "working from home") by means of a regular staff survey.

Action 4.14b: Formal Flexible Working requests to be provided from HR for monitoring gender balance on an annual basis.

(301 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.

Prior to maternity leave, Head of School has several meetings with the member of staff, in which he outlines the various options available to them. It is generally very encouraging for staff about to go on maternity leave to know that there is considerable flexibility in the date and modalities of their return to work. Staff retain their office/desk space during their leave, and are welcome and encouraged to visit the School from time to time (either for informal visits just to say hello or more formally using KIT days).

The University has no fixed policy on covering work during maternity leave. Often it is possible to combine several instances of staff maternity and other types of leave, to ask the University management to approve temporary teaching cover.

There are two such successful instances: one where one staff's maternity leave and another's participation in an RAE panel were sufficient grounds for appointment of a teaching fellow; in the second instance one staff's maternity leave was 'combined' with another staff's sick leave. The arrangements on return often have a great deal of flexibility. For example, a member of staff just back from her maternity leave (Apr 2014), will not be expected to perform any teaching or

administrative duties till September 2014, giving her space and time to devote to rebuilding her research. Requests for special considerations by staff with young families in terms of days and times e.g. for teaching, are routinely viewed sympathetically.

(243 words)

5. Any other comments: maximum 500 words (*Total: 477 words*)

Please comment here on any other elements which are relevant to the application, e.g. other STEMM-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.

School of Mathematics and Statistics Gender Inclusion Staff Survey

With full support from our Head of School, the survey was designed in consultation with the SAT; built upon questions used in other schools within the University who are working on Athena SWAN; and checked by the School's Ethics Committee. Conducted from 24 Oct 2013 to 8 Nov 2013 (staff invited to participate by email and with the flyer pictured below), the confidential survey provided the SAT with a further understanding of staff opinions and experiences within the School.

58 staff members replied (20 female, 34 male, 4 unspecified): 8 Admin/IT/Technical, 4 Teaching only, 11 Research only, 34 Teaching & Research, 2 unspecified/other. 25 respondents have caring responsibilities, 26 do not and 6 preferred not to specify.

The quantitative feedback was presented as female and male which was non-identifiable, with the qualitative feedback presented on its own to protect identity.

Key positive results

Most staff

- feel that the type of work allocated to them is appropriate to their role and that their contribution is valued within the School;
- feel that School social events are equally welcoming to men and women;
- know how to access professional training opportunities;
- believe that part-time staff and those on temporary breaks (e.g. carer leave or sabbaticals) are included in on-going life in the department if they wish;
- feel that their line manager/supervisor is supportive of flexible and would deal effectively with issues of gender-based harassment.

Areas of concern

- Substantial number of staff feel that the full range of skills and experience is not valued in the promotion process.

- More than 20% of staff agreed that they would attend more social events within the school
 if organised at different times. Lack of social events also featured in a number of the open
 responses.
- 4 male and 2 female staff members believe that gender affects the opportunity to join decision making committees in the School and 2 male and 5 female staff members think that decision making committees are *not* representative of School diversity. (Staff discussion meeting 30/01/14)
- Long-hours culture and stress levels were mentioned by several staff members in the open comments.

Following the survey, the SAT decided the School would benefit from informal staff lunchtime discussion meetings (in addition to the formal Staff Council meetings) to discuss some of the issues raised in the Staff Survey. An initial meeting took place on 30 Jan 2014 to discuss the School's decision-making committees (see above).

Refer to Action 4.11 to re-run the survey.

Action 5.1: Continued staff lunchtime discussion meetings.

Image of the survey flyer promoted in staff communication throughout the School:

Gender Inclusion Staff Survey

Have your say...

A survey open to All Staff in the School of Mathematics and Statistics

Complete by: Friday 8 November 2013

How long does it take to complete? Just 10-15 minutes

What is the purpose of the confidential survey?

As part of the School of Mathematics and Statistics' Athena SWAN Initiative, we are seeking everyone's feedback to help ensure that our staff policies and practices are inclusive to the diversity of all our staff.

The results will be confidential and used to create positive equality actions by the School's Self Assessment Team.

How can I participate in the survey?

To complete the survey online please log onto website:

http://www.st-andrews.ac.uk/hr/edi/sex_gender/athenaswansupport/maths/



School of Mathematics and Statistics Equality webpage

A new webpage (http://www-maths.mcs.st-andrews.ac.uk/equality.shtml) was created as a result from the 'Gender Inclusion Staff Survey', providing enhanced awareness to the School community of different diversity and family related services as already discussed throughout this submission.

Action 5.2: Publish the School's Athena Swan submission on the School's website (once successful).



School of Mathematics and Statistics

Home | About the school | Contact | Courses | Research | Personnel list

Equality

- Map of this Website
- ▶ Information for applicants
- ▶ Careers in Maths and Statistics
- Latest School Newsletter
- ▶ Previous School Newsletters
- ▶ Entry to honours
- Picture gallery
- ▶ School documentation
- ▶ Equality
- Link to MMS
- ▶ Past examination papers
- ▶ Contact us
- MacTutor History of Mathematics archive
- ▶ Map of the university
- Google Map: Mathematical Institute
- ► Google Map: Observatory (CREEM)

The School actively supports equality and fairness irrespective of race, disability, age, faith, gender and sexual orientation and is taking active steps to prevent and eradicate any explicit or implicit discrimination of staff and students on the basis of these differences.

School of Mathematics and Statistics and University of St Andrews Equality Statement

Good Gender Equality Practice in Employment

University's Equality and Diversity Inclusion Policy

University's Inclusive Recruitment Guide

Family Friendly Polices

Family Friendly Flowchart

Carers, Childcare and School Holidays information

Health and Wellbeing at Work initiatives

Athena SWAN progress and meetings record

Guidelines for scheduling meetings

6. 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.

Please refer to the Appendix.

Note: the SAT has established timescales per action as a result of consultation with those who have responsibility to carry out the actions.

7. Case study: impacting on individuals: maximum 1000 words (Total: 995 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.

Athena SWAN Departmental Award Action Plan: School of Mathematics & Statistics, University of St Andrews (Reviewed: 30 April 2014)

No	Description of action	Action taken to date (April 2014)	Action planned	Responsibility	Timescale	Evaluation/Success Measure
Sectio	n 2 - Self-Assessment: Continue to	promote the Athena SWAN activ	rities, review progress and share goo	od practice:		
2.1	Regular meetings of the School's E&D committee	6 meetings held so far	Maintain the E&D committee meetings at a frequency of 3 meetings per year and report to Staff Council.	SAT Chair	ongoing	Minutes of meetings.
2.2	Ensure the School's undergraduate students are represented on the committee.	The committee currently has an undergrad rep.	Establish the student representative on the E&D committee as one of the standing roles amongst the School's undergraduate students.	SAT Chair	Apr-Oct 2014	Student rep.

No	Description of action	Action taken to date (April 2014)	Action planned	Responsibility	Timescale	Evaluation/Success Measure
Sectio	n 3 - A picture of the Department:	STUDENT data				
3.1a	Monitor undergraduate student gender ratios	Data presented in this submission.	We will monitor the number of male and female students on an on-going basis.	SAT	Sept 2014/ 15/16 + annually	Report to Staff Council.
3.1b	Monitor undergraduate student gender ratios	Data presented in this submission.	If the percentage of female undergraduate students continues to decrease, we will investigate in more detail where the change is occurring: in applications, offers, acceptances, or in changes of degree.	SAT	Sept 2014/ 15/16 + annually	Report to Staff Council.
3.2	Monitor undergraduate student gender ratios.	Data presented in this submission.	We will speak to our female students and ask why they chose St Andrews during a future student lunchtime discussion meeting. It will be interesting to	SAT Chair, AO, SAT student rep.	Academic year 2014/15, then annually to	Summary report to Staff Council. Findings will be shared with the University-wide SAT team.

					1	
			uncover the reasons why our		build upon	
			numbers are so much higher than		common	
			the national averages and how		positive	
			we can keep them high.		reasons.	
3.3a	Encourage an inclusive culture	All staff are encouraged to	The School will continue to	HoS, AO	ongoing	Attendance of female
	within our School at all levels.	attend occasionally.	encourage female students and			staff at Open Days.
			staff to assist at the UCAS open			
			days.			
3.3b	Encourage an inclusive culture	None so far.	We will arrange for female	SAT, AO	2014	Updated student
	within our School at all levels.		students to be interviewed for			prospectus.
			the prospectus.			
3.4	Monitor postgraduate student	Data presented in this	We will continue to monitor the	SAT	Sept 2014/	Report to Staff Council.
	gender ratios.	submission.	ratio of female:male		15/16 +	
			postgraduate taught annually.		annually	
3.5a	Monitor postgraduate student	Data presented in this	We will continue to monitor	SAT	Sept 2014/	Report to Staff Council.
	gender ratios.	submission.	female:male ratio of students on		15/16 +	
			research degrees annually,		annually	
			comparing with the national			
			average when possible.			
3.5b	Monitor postgraduate student	Data presented in this	If the relative number of female	SAT, DoPG	Academic	Summary report to Staff
	gender ratios.	submission.	research students keeps declining		year 2014-	Council. Findings will be
			(compared to the national		15 + then	shared with the
			average), we will investigate why		annually	University-wide SAT
			female students have started to			team.
			look less favourable upon St			
			Andrews for postgraduate			
			research through discussions with			
			both the final year undergraduate			
			cohort and the postgraduate			
			research student body.			
3.6	Ensure the School's	None so far.	We will invite a postgraduate	SAT Chair	Apr-Oct	PG Student Rep
	postgraduate students are		student representative to be part		2014	
	represented on the committee.		of the E&D committee to make			

			sure their interests are taken into account.			
3.7	Monitor gender bias in application data.	Data presented in this submission.	We will continue to monitor our application data for gender bias.	SAT	Sept 2014/ 15/16 + annually	Report to Staff Council.
3.8	Monitor gender bias in student performance.	Data presented in this submission.	We will investigate whether our female undergraduate students are less likely to continue to PhD study than our male students, and if so why. (See also Action 3.9b)	SAT, DoPG	Academic year 2014- 15+ then annually	Report to SAT and Staff Council.
3.9a	Monitor gender bias in student performance.	None.	We will investigate whether female students start their degrees with weaker abilities than male students, by looking at data from our core compulsory first and second year courses, MT1002 and MT2001.	SAT, DoT	Apr-Oct 2014	Report to SAT and Staff Council.
3.9b	Monitor gender bias in student performance.	First meeting held on 01/04/14.	We will establish a discussion forum to investigate how our female undergraduates feel about high performance.	SAT Chair, SAT student rep	2-3 meetings per year	Report to SAT.

No	Description of action	Action taken to date (April 2014)	Action planned	Responsibility	Timescale	Evaluation/Success Measure
Sectio	n 3 - A picture of the Department:	STAFF data				
3.10	Monitor Staff data.	Data presented in this submission.	We will continue to monitor gender ratio of academic and research staff in our School.	SAT	Sept 2014/ 15/16 + annually	Report to Staff Council.
3.11	Monitor Staff data.	Data presented in this submission.	We will continue to monitor whether any gender biased is (or becomes) apparent in staff turnover data.	SAT	Sept 2014/ 15/16 + annually	Report to Staff Council.

No	Description of action	Action taken to date (April 2014)	Action planned	Responsibility	Timescale	Evaluation/Success Measure
Sectio	n 4 - Supporting and advancing w	omen's careers:				
4.1a	Monitor gender biased and inclusiveness in the School's recruitment processes.	Data presented in this submission.	The school will step up efforts to ensure that applications are made via the online HR 'E-Recruitment system'.	HoS	Ongoing	Improved use of the University's E- Recruitment system
4.1b	Monitor gender biased and inclusiveness in the School's recruitment processes.	Improvements to the website are ongoing.	We plan to make the family-friendly culture within the School more visible to potential applicants by: (i) continuing to improve the School's website, in particular by increasing the visibility of female staff (as role models) and making relevant policies and practices more visible; (ii) including a statement on the family-friendly ethos within the School in our recruitment material (job adverts and further particulars).	HoS, SAT Chair	Ongoing	Attractive and user- friendly School website with up to date information.
4.1c	Monitor gender biased and inclusiveness in the School's recruitment processes.	Data presented in this submission.	To determine the impact of these measures, we will continue to monitor improvement and application success rates and gender ratio of applications will be reported annually to the School's Staff Council.	SAT	Sept 2014/ 15/16 + annually	Report to Staff Council.
4.1d	Monitor gender biased and inclusiveness in the School's recruitment processes.	None.	The School, along with other Schools working on Athena SWAN at the University, has recognised that staff who have been named	HoS, HR	Ongoing	Improved staff data.

4.1e	Increase the number of female	None.	on grants are also part of the "New Starts" data. As an action, the School will be monitoring the gender profile of staff recruited who are named on grants to help determine trends and further actions. Support the University's new	HoS, HR	Ongoing	Monitoring number of
1120	applicants.		Positive Action initiative for all vacancies for academic and support staff where there are low numbers of females in post, to state within adverts the school welcomes applications from women who are underrepresented in this post plus promote Athena SWAN logo.	1103, 1111	3.1g3.11g	female applicants applying for posts.
4.2a	Monitor gender biased and inclusiveness in personal development and career progression.	No formal monitoring has so far taken place.	We will continue to monitor the uptake of the annual appraisal for all staff.	HoS	Ongoing	Data on Q6 uptake, reported to Staff Council.
4.2b	Monitor gender biased and inclusiveness in personal development and career progression.	None.	HoS will keep a log of meetings with staff unsuccessful in their promotion application.	HoS	May-Aug annually	More accurate overview of staff appraisal and feedback.
4.3	Monitor gender biased and inclusiveness in the School's recruitment processes.	Some staff members have been trained.	The School has committed to undertake training on how to utilise the online 'Inclusive Recruitment Guide', to help ensure that gender equality is practiced throughout the stages of the recruitment process.	HoS	Ongoing	Greater pool of staff members who have been trained to use the online 'Inclusive Recruitment Guide'.

4.4	Monitor gender biased and inclusiveness in personal development and career	None.	Monitor participation (of both mentees and mentors) in the cross-institutional mentoring	HoS, SAT Chair	Ongoing	Better understanding of the need to encourage participation.
4.5a	progression. Monitor gender biased and inclusiveness in personal development and career progression.	First round of 'opt-in' Q6 currently taking place	scheme. We will set out a timescale for Q6 to ensure reviews are carried out on a regular basis, suggesting an annual review for junior staff but perhaps a review every second year for senior staff.	Hos, SAT	Feb-Aug 2014	Improved participation in Q6, leading to regular appraisals for all staff.
4.5b	Monitor gender biased and inclusiveness in personal development and career progression.	None	We will monitor the effect of changing the Q6 appraisal scheme from 'opt-in' to 'opt-out'.	SAT	Sept 2014/ 15/16 + annually	Improved participation in Q6, leading to regular appraisals for all staff.
4.6a	Ensure staff receive appropriate training.	Ongoing	The Head of School will ensure that all new staff attend the University Staff Induction Programme.	HoS	As needed	Higher rates of staff attendance at Induction Programme.
4.6b	Ensure staff receive appropriate training.	Staff currently taking the latest version of the online training (completion rate to date: 58%) – this is in addition to previous equality law training modules and sessions.	The chair of the School's E&D committee will monitor completion rates of the 'Online Diversity in the Workplace – HE' training module and will report completion rates to the Head of School and Staff Council.	SAT Chair	Ongoing	Report to HoS and Staff Council.
4.7a	Encourage an inclusive culture within our School at all levels.	Data presented in this submission.	We will monitor the gender ratio of our PG committee and make PhD students aware that it is possible to request a female member of staff to conduct their annual review.	SAT	Academic year 2014- 15 + ongoing	Report to DoPG
4.7b	Ensure staff are aware of correct procedures.	Informal action only.	We will make supervisors aware that in some cases, both HR and	HoS, SAT Chair, DoPG	Academic year 2014-	Improved guidelines for PhD supervisors.

			Registry have to be informed if a student is planning to take maternity/paternity/adoption leave.		15 + ongoing	
4.8	Encourage an inclusive culture within our School at all levels.	Informally taking place.	Promote female representation on the School's committees, in particular the PG Committee.	HoS	Ongoing.	Improved E&D throughout the School's committees.
4.9a	We will work towards a culture within the School allowing all staff members to achieve an optimal work-life balance.	Data presented in this submission.	The School will continue to monitor workload on an ongoing basis.	HoS	Ongoing	Improved workload model.
4.9b	We will work towards a culture within the School allowing all staff members to achieve an optimal work-life balance.	Workload model discussions ongoing both at School and University level.	We will consider whether a more refined workload model is desirable and will identify examples of good practice workload models both within the University of St Andrews and from other Mathematics Departments around the country through LMS.	SAT	Ongoing	Improved workload model.
4.10	Encourage an inclusive culture within our School at all levels.	None.	For those seminars and meetings not currently scheduled during core hours, we will ask the relevant convenors to consider varying the time of the meetings so that at least a certain proportion takes place inside core hours.	SAT Chair	Apr-Oct 2014+ then annually	More seminars scheduled during core hours and/or taking place at varying times.
4.11	Encourage an inclusive culture within our School at all levels.	Data presented in this submission.	The School has committed to repeat our Staff Survey in April 2015 and at regular intervals. The SAT will analyse and discuss	SAT	Repeat in Apr 2015 And more regularly	Report to Staff Council.

	1	I			
		positive/negative feedback to			
		gender difference in replies is			
		acted upon to ensure the School			
		is inclusive.			
Monitor outreach activities.	No formal monitoring has so	We will monitor and address	Outreach	Sept 2014/	Report to SAT.
	far taken place.	male/female participation ratios	Officer	15/16 +	
		in outreach activities.		annually	
Ensure access to policies with	Equality website updated Mar-	Ensure that the link on the	SAT Chair, HoS	Ongoing	Attractive and user-
promote equality and diversity	Apr 2014	School's webpages to the HR			friendly School website
is readily available and up to		Maternity Leave policy and			with up to date
date.		Family Friendly policies is			information.
		updated regularly.			
Ensure access to policies with	Equality website updated Mar-	Ensure that the link on the	SAT Chair, HoS	ongoing	Attractive and user-
promote equality and diversity	Apr 2014	School's webpages to the HR			friendly School website
is readily available and up to		Paternity, Adoption and Parental			with up to date
date.		Leave policy and Family Friendly			information.
		policies is updated regularly.			
Ensure access to policies with	Equality website updated Mar-	Ensure that the link on the	SAT Chair, HoS	ongoing	Attractive and user-
promote equality and diversity	Apr 2014	School's webpages to the HR			friendly School website
is readily available and up to		Family Friendly policies (which			with up to date
date.		includes the Flexible Working			information.
		Policy) is updated regularly.			
Monitor gender bias in flexible	No monitoring has taken place	We will monitor any real and	SAT	2014	Report of survey
working arrangements.	so far.	perceived gender imbalance in			findings to Staff Council.
		informal flexible working (mainly			
		"working from home") by means			
		of a regular staff survey.			
Monitor gender bias in flexible	None.	Formal Flexible Working requests	HR, SAT Chair	Sept 2014/	Report to SAT and Staff
working arrangements.		to be provided from HR for		15/16 +	Council.
		monitoring gender balance on an		annually	
		annual basis.			
	Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Monitor gender bias in flexible working arrangements.	Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Equality website updated Mar-Apr 2014 Equality website updated Mar-Apr 2014 No monitor gender bias in flexible working arrangements. No monitoring has taken place so far.	Monitor outreach activities. Monitor outreach activities. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Equality website updated Maraproper and the promote equality and diversity is readily available and up to date. Equality website updated Maraproper and the promote equality and diversity is readily available and up to date. Equality website updated Maraproper and the promote equality and diversity is readily available and up to date. Equality website updated Maraproper and the promote equality and diversity is readily available and up to date. Equality website updated Maraproper and the promote equality and diversity is readily available and up to date. Equality website updated Maraproper and the promote equality and diversity is readily available and up to date. Monitor gender bias in flexible working arrangements. No monitoring has taken place so far. We will monitor any real and perceived gender imbalance in informal flexible working (mainly "working from home") by means of a regular staff survey. Monitor gender bias in flexible working requests to be provided from HR for monitoring gender balance on an	form actions to ensure that the gender difference in replies is acted upon to ensure the School is inclusive. Monitor outreach activities. Monitor outreach activities. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Equality website updated Marporote equality and diversity is readily available and up to date. Equality website updated Marporote equality and diversity is readily available and up to date. Equality website updated Marporote equality and diversity is readily available and up to date. Equality website updated Marporote equality and diversity is readily available and up to date. Equality website updated Marporote equality and diversity is readily available and up to date. Equality website updated Marporote equality and diversity is readily available and up to date. Ensure that the link on the School's webpages to the HR Paternity, Adoption and Parental Leave policy and Family Friendly policies is updated regularly. Ensure that the link on the School's webpages to the HR Family Friendly policies (which includes the Flexible Working Policy) is updated regularly. Monitor gender bias in flexible working arrangements. No monitoring has taken place so far. Monitor gender bias in flexible working from home") by means of a regular staff survey. Monitor gender bias in flexible working arrangements. HR, SAT Chair to be provided from HR for monitoring gender balance on an experience of the provided from HR for monitoring gender balance on an experience and participation ratios in school is includes the flexible Working requests to be provided from HR for monitoring gender balance on an experience and participation ratios in flexible working gender balance on an experience and participation ratios in flexible working experience and participation the solution and participation and participation from the school of the market plane and participation an	form actions to ensure that the gender difference in replies is acted upon to ensure that the gender difference in replies is acted upon to ensure the School is inclusive. Monitor outreach activities. No formal monitoring has so far taken place. No formal monitoring has so far taken place. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure access to policies with promote equality and diversity is readily available and up to date. Ensure that the link on the School's webpages to the HR Paternity, Adoption and Parental Leave policy and Family Friendly policies is updated regularly. Ensure that the link on the School's webpages to the HR Family Friendly policies (which includes the Flexible Working Policy) is updated regularly. Monitor gender bias in flexible working arrangements. No monitoring has taken place so far. Formal Flexible Working requests to be provided from HR for monitoring gender balance on an end of the provided from HR for monitoring gender balance on an enually

No	Description of action	Action taken to date (April 2014)	Action planned	Responsibility	Timescale	Evaluation/Success Measure
Sectio	n 5 - Any Other Comments:					
5.1	Continued staff lunchtime discussion meetings.	First meeting on 30 Jan 2014	Organise 2-3 informal lunchtime discussion meetings for staff focusing on a particular issue raised in the Staff Survey	SAT	Ongoing	Increased awareness of E&D issues amongst all staff.
5.2	Wider awareness for transparency of document.	Web space allocated.	Publish submission document on webpage (without case studies) once successful.	Website lead, E&D Officer	Aug/Sep 2014	Notify School and University academics, plus Athena SWAN to hyperlink.

Abbrev	Abbreviations				
SAT	AT Self-Assessment Team				
HoS	Head of School				
E&D	Equality & Diversity				
AO	Admissions Officer				
DoPG	Director of PostGraduate Affairs				
DoT	Director of Teaching				

University of St Andrews



Professor Nik Ruškuc

Head of School School of Mathematics and Statistics

Athena SWAN Coordinator Equality Challenge Unit Queen's House 55/56 Lincoln's Inn Fields London WC2A 3LJ

30 April 2014

Dear Athena SWAN Coordinator,

I am writing to wholeheartedly support my School's aspiration to develop stronger, more overt, equality policy and practice by participating in the Athena SWAN scheme. Even before the start of preparing this application, I and the Convenor of the School Equality and Diversity Committee, Prof Ineke De Moortel, have formulated a clear underlying policy that this process should be used as an opportunity for the School to self-reflect in the gender-related areas, but also more broadly on all equality and diversity issues. I believe we have achieved some initial successes, such as the formation of an excellent, broadly-based and broad-minded Self Assessment Team, identifying some unexpected potential problem areas (e.g. the apparent gender bias in degree classification), and initiating some good discussions among staff and students. However, we are aware that these are only first steps on what will be a long and transformative journey.

I firmly believe that fairness is one of the few attributes that are absolutely essential to an educational establishment. This applies across the board, to all staff and students, and all areas of activity. And I do recognise that the area of gender-related issues has been one where some of the most troubling examples of systemic inequality, affecting the largest number of people, has been allowed to persist for far too long. From this point of view it is appropriate and timely to engage with these issues, while keeping our minds open to lessons that can be learned for all possible contexts of equality and diversity.

We are a world-leading department delivering top quality education and cutting edge advances in research. I believe that by opening up the equality and diversity issues, and in particular participating with the Athena SWAN process, we can develop further by nurturing a broader range of skills and approaches, springing from diverse backgrounds. Conversely, a failure to do so would represent a regressive step, showing a lack of respect, and ultimately wasting valuable talent and resources. We also must remember that in the educational context, staff members are rolemodels for the new generations, and have the responsibility to promote progressive and inclusive behaviour.

On balance, I am content that the School already achieves a high level of promoting gender balance and equal opportunity. For example, in the past three years, two female staff members at reasonably early stages of their careers, and both with families, have been promoted to professorships. Several female staff members have been on maternity leave, and subsequently successfully returned to active and productive academic work, supported by formal and informal flexible arrangements. School consultations and discussions have demonstrated a high level of engagement from both women and men on gender issues, presenting a healthy range of diverse opinions, but without pinpointing any major problematic areas.

I am confident that our application reflects fairly these successes, as well as seriousness and sincerity of our thinking about the relevant issues, and our commitment to an on-going engagement and improvement.

Faithfully yours,

Nile Ruiture

Nik Ruškuc