



Department Application
Bronze and Silver Award
(public version)



Department application	Silver	This document
Word limit	12,000	12293 (includes 500 Covid allowance)
<i>Recommended word count</i>		
1. Letter of endorsement	500	532
2. Description of the department	500	730
3. Self-assessment process	1,000	585
4. Picture of the department	2,000	2177
5. Supporting and advancing women's careers	6,500	7269
6. Case studies	1,000	1000
7. Further information	500	0

Name of institution	LSE
Department	Mathematics
Focus of department	STEMM
Date of application	April 2020
Award Level	Silver
Institution Athena Swan award	Date: April 2020
Contact for application <small>Must be based in the department</small>	Prof Jan van den Heuvel
Email	j.van-den-heuvel@lse.ac.uk
Telephone	020 7955 7632
Departmental website	www.lse.ac.uk/Mathematics

List of abbreviations and LSE terms used in the document

BAME	Black and Minority Ethnic
CDR	Career Development Review
Culture Survey	Department's staff and PhD student survey
DPD	Doctoral Programme Director
DM	Department Manager
EDEN Centre	LSE EDEN Centre for Education Enhancement
EDI	Equity, Diversity and Inclusion
Equality Survey	Department's annual equality survey of all students
FTE	Full-Time Equivalent
GTA	Graduate Teaching Assistant (PhD student who teaches)
Guest Teacher	Hourly paid teacher (for classes)
HE	Higher Education
HESA	Higher Education Statistics Agency
HoD	Head of Department
LMS	London Mathematical Society
LT	Lent Term (January – March)
MR	Major Review (with promotion to Associate Professor)
MT	Michaelmas Term (October – December)
PGCertHE	Postgraduate Certificate in Higher Education
PGR	Postgraduate Research Student (PhD student)
PGT	Postgraduate Taught Student (MSc student)
PSS or PS Staff	Professional Services Staff
SAT	Departmental Athena Swan Self-Assessment Team
School	LSE
SMC	School Management Committee
SSLC	Staff-Student Liaison Committee
ST	Summer Term (April – June)
Staff Survey	LSE's Schoolwide staff survey
Staff WG	Working group of SAT looking at staff data.
Student WG	Working group of SAT looking at student data
WP	Widening Participation

1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT



Dani Glazzard
Head of Athena Swan

27 May 2021

Dear Ms Glazzard,

The LSE Department of Mathematics is unusual in being a STEMM department within a social sciences institution, where issues of gender inequality were previously not so visible. Members of the Department have been Athena Swan advocates for a long time, and I have personally been involved with both the LSE and our departmental applications.

We did submit an application at the same time as the School's first application, back in 2016, but were unfortunately unsuccessful. While we were disappointed, we learnt from the process and decided to press on with our plans. Five years later we are proud of what we have achieved. We are very aware of how much more still needs to change, but we are confident that the Department has changed for the better.

Examples of our work can be found throughout this application, and we start to see the first outcomes of this:

- We are meeting our target of 35% of seminar speakers being women
- In 2020/21 50% of our MSc students are women.
- We doubled the number of women PhD students.
- [... removed in public version]

The change I am most proud of is that EDI activities and considerations are now embedded in everything we do. Initially this was dependent on a few people carrying that torch, now almost everybody sees it as normal practice. For instance, it has become unthinkable that somebody would organise a research event with male speakers only. And whenever we look at some data, somebody will ask if we can have the data split for different genders or other groups.

I see members taking the EDI message outside the Department as well. It is often somebody from our Department who remarks if a School activity is scheduled outside core hours. Colleagues involved in organising conferences proudly show their list of speakers as examples how diverse mathematics can be.

We realise there is still a lot more to do. Apart from continuing the work we started, in the next five years we want to focus on:

- Increasing the number of female undergraduate applications.
- Closing our attainment gaps; and taking an intersectional approach to this.

- Ensure we recruit more women academics, when we have the opportunity.
- Support the training and professional development of hourly paid teachers.

Working in what is essentially a single-faculty institution means a lot of our processes are managed centrally, and we need to work collaboratively with all parts of the School. We need to prioritise on what we can change as a Department (which is significant), but also patiently share our aspirations. This can be frustrating, but in the end it will only benefit both the Department and LSE as a whole.

The Department is committed to provide the resources required for the planned activities. It is something I, as Head of Department, consider a top priority. I wholeheartedly support this application.

The information presented in this application (including qualitative and quantitative data) is an honest, accurate and true representation of the Department.

Yours sincerely,

[... *signature removed in public version*]

Professor Jan van den Heuvel
Head of Department (August 2011-July 2015, August 2019-present)
Department of Mathematics

WORD COUNT SECTION 1: 532

2. DESCRIPTION OF THE DEPARTMENT

The Department of Mathematics is a medium-sized department in LSE. We benefit from all being based in one building. This makes it easier to create a common departmental culture.



Picture: Columbia House is home to the Department

[... picture removed in public version]

Picture: Sharing cake in the Department's kitchen (the largest common staff space in the Department). We often share birthday cakes, events to which everybody is invited.

Mathematics is one of 28 academic departments at LSE. It has grown significantly in the last decade:

	2010/11 Headcount (FTE)	2020/21 Headcount (FTE)
Academic Faculty and Fellows	19 (17.8FTE)	32 (31 FTE)
Hourly paid teachers (includes PhD students)	21 (5.4 FTE)	39 (16.2 FTE)
Professional Services Staff	4 (4 FTE)	6 (6 FTE)
PhD students	14 (14 FTE)	17 (17 FTE)
UG and MSc students	311 (311 FTE)	534 (534 FTE)

Table 1.1: Department composition at April 2021

[... table removed in public version because of small numbers in certain categories]

The Department has a Head, a Deputy Head (Teaching) and a Deputy Head (Research).

Research in the Department is concentrated in four areas. They do not form a formal structure, but are one of the aspects taken into account when forming committees and allocating mentors. We recognise that staff research overlaps these nominal areas. To strengthen our coherence, we hold Internal Departmental Colloquia twice each term at which faculty present their current research to other all faculty, post-docs and PhD students.

The Department runs three undergraduate programmes, three taught Masters programmes, and a PhD programme. We also teach many students from other departments. Around two thirds of all first year LSE undergraduates follow at least one of our courses. When considering certain student datasets, we review data both by our Department's students only and by all students across the School taking our courses.

The Department is an unusual and specialised mathematics department in an unusual and specialised institution. Our location within a social sciences institution has been a significant factor in shaping our activities. Our research specialisms are those that connect with many areas of social science. We cover few of the usual 'classical' mathematics subjects one would expect to see in a more general university. Our degree programmes are also specialised; all require students to take courses in subjects other than Mathematics. In particular, our UG programmes are joint with Economics and Statistics.

LSE has a separate Department of Statistics. As some benchmarking data involves all of 'Mathematical Sciences', it is not always possible to compare 'like for like'. We consider benchmarking data in this application, but inevitably have to discuss most of our data on its own merit.

Reporting period and datasets

Our reporting period is 2015/16 to 2018/19, one year more than the minimum 3 years required, in order to evaluate trends and demonstrate impact/progress made by actions. Major parts of this application were prepared before the pandemic and we have taken the Advancing HE opportunity to defer submission while maintaining datasets originally prepared. We occasionally include data from 2019 to 2021, where there are significant developments to note.

As advised in panel feedback from our last application, we do not include numerical data where the small group/number of respondents could allow identification of individual colleagues, usually female or BAME¹. In these instances, data is presented in broader categories, or not presented and the observations presented in the narrative.

Covid

As we write this application, we are all working at home due to lockdown and a campus where most buildings are closed. We have worked even more closely together over this hugely challenging last year, and recognise both the difficulties and opportunities of moving a whole University online with hardly any notice.

We have learned more about each others' environments, working styles, need for flexibility and other factors which we would not necessarily be so aware of during a campus working day. We take care to preserve core hours for Zoom meetings. There is an understanding in our meetings that children might well join in unexpectedly, need

¹ We recognise the limitations of the term Black, Asian and Minority Ethnic (BAME), especially its homogenisation of people from minoritized ethnic groups. We plan to explore the impact of race and ethnicity within our department in more detail, and will review the language we use as part of that work.

meeting after School, or want their lunch. We have four weekly coffee/tea break times set as recurring Zoom meetings for anyone who just wants to say hello, as they would in our busy kitchen on campus. These meetings scale-up to end of term gatherings, department meetings, and informal graduation get-togethers.

[... *picture removed in public version*]

Picture: Summer 2020 Zoom Graduation for staff and students

We are particularly mindful of colleagues who have responsibilities as parents or carers. We have been fully supportive of the School's position in this regard, adapting workload and scheduling either proactively or responsively (see also Section 5.5). We have also been working with the School to highlight policies (e.g. promotions) which need to factor in longer term impact of this year's disruption, and recently ran a Women in Mathematics Seminar specifically on this topic.

We have been sure to inform colleagues that as HE employees they are considered to be critical workers. We supported those with school-age children in getting the documentation they need to supply to their childrens' schools.

WORD COUNT SECTION 2: 730

3. THE SELF-ASSESSMENT PROCESS

(i) a description of the self-assessment team

Data note: The table indicates members of the Staff and Student Data Working Groups. The Head of Department chaired the SAT. All members of the SAT each year were included in all full SAT meetings and email consultations. Students have been involved throughout, sometimes with gaps where business continued outside of term time.

SAT Year(s)	Name and Gender	Job (Full-time (FT)/ Part-time (PT(if staff)	SAT role(s)
2018/19	Martin Anthony	Professor, at LSE since 1990 (FT)	- SAT Chair 2018/19 - lead staff WG 2018/19 - lead student WG 2018/19 - culture survey WG
2018-21	Kate Barker	Department Manager, at LSE since 2000 (FT)	- all working groups - application coordinator
2018-21	Sally Barton	Guest teacher, 2012/13 and since 2016 (PT)	- staff WG
2019/21	Julia Böttcher	Associate Professor, at LSE since 2012 (FT)	- EDI Officer 2017/18 - culture survey WG
2018-21	Albina Danilova	Associate Professor, at LSE since 2009 (FT)	- EDI Officer 2018/19 (1 term) and since 2020/21 - culture survey WG
2019/20	Rachel Kirsch	LSE Fellow, 2018-2020 (FT)	- staff WG - culture survey team
2019-21	Andy Lewis-Pye	Professor, at LSE since 2013 (FT)	- EDI Officer 2019/20 - student WG - application coordinator
2018-20	Amal Merhi	Guest Teacher, at LSE since 2007 (PT)	- culture survey team
2018-21	Edward Perrin	Departmental Administrator, at LSE since 2018 (FT)	- staff WG - student WG - student equality survey WG
2018-21	Jan van den Heuvel	Professor, at LSE since 1996 (FT)	- SAT Chair since 2019/20 - lead staff WG since 2019/20 - lead student WG since 2019/20 - culture survey WG - student equality survey WG - application coordinator
2018/19	Luitgard Veraart	Associate Professor, at LSE since 2010 (FT)	- EDI Officer 2018/19 (2 terms) - culture survey WG
2018-21	James Ward	Assistant Professorial Lecturer, at LSE since 1995 (FT)	- staff WG

2018-20	*** (M)	UG student, started 2018/19	- student WG
2019/20	*** (F)	MSc student, 2019/20	- student WG
2019/20	*** (M)	MSc Student, 2019/20	- student WG
2018/19	*** (M)	PhD student, started 2017	- student WG
2019/20	*** (M)	PhD Student, started 2018	- student WG

[... submitted version had pictures, student names, and gender of all members.]

(ii) an account of the self-assessment process

Our first SAT was formed in 2015 to prepare an Athena Swan Bronze application, submitted in 2016, together with an LSE institutional submission. Unfortunately, both submissions were unsuccessful, but the process and the feedback were still incredibly useful in stimulating progress.

We did not reapply as a department until LSE had re-applied (successfully) as an institution. Instead, we used the time to update and implement our own action plan, and support the School. When the School did re-apply in November 2019, we began a new self-assessment, and took the decision to apply for a Silver award based on our data and experiences. An overview of our meetings is in the table below:

Date	Meeting	Purpose and main discussion/review areas
Apr 2017	Outcome of previous application known.	n/a
9 May 2017	Summer Term EDI Committee	Discussion of Athena Swan outcome and feedback.
10 Nov 2017	Michaelmas Term EDI Committee	Further Athena Swan update meeting, following LSE meeting on the School-level application.
2 Mar 2018	Lent term EDI Committee	Review of actions and action implementation
16 May 2018	Summer term EDI Committee	Review of actions and action implementation.
7 Nov 2018	Michaelmas term EDI Committee	Decision to begin new self-assessment work again; SAT formed, based on EDI committee membership.
20 Nov 2019	Staff data working group	Working Group reviewed staff action implementation to date and reflected on persistent issues on recruitment and promotion.
12 Dec 2018	Student data working group	Working Group reviewed student focus group feedback, BAME attainment data, and student data sections of the previous application. Discussed ideas for further specific actions for the student-related sections.
31 Jan 2019	Lent term EDI Committee = SAT	Report on LSE's application and update on securing updated datasets.
3 May 2019	Summer term EDI Committee = SAT	Review of action plan for staff and students.
19 Jul 2019	Student data working group	Discussed the Student Dataset 2019, especially admissions and pipeline, examination marks 2009/10 and 2018/19.
20 Nov 2019	Michaelmas term EDI Committee = SAT	Discussed appointing Student Equality Officers, results of the Departmental Culture Survey and Student Equality Survey,

		priority areas for review.
14 Feb 2020	Full SAT meeting	General application clarity and sense, data queries, areas still to review.
19 Feb 2020	Women in Maths Athena Swan seminar presentation by HoD	Review of work to date, call for feedback and ideas.
24 Feb 2020	Lent term EDI Committee = SAT	Update on sections considered to date and on institution application.
March 2020	March 2020 Covid/homeworking started – temporary lull.	
22 May 2020	Summer term EDI Committee = SAT	Confirmation of decision to take up permitted delay to application due to Covid. Discussion about School securing data.
26 Oct 2020	Michaelmas term EDI Committee = SAT	Restart and review of completed application from Dept of Statistics for ideas.
3 Dec 2020	“Diversifying PhD students”	Wider School membership review group to feed into SAT work.
14 Jan 2021	Action plan workshop, all available SAT members	Reviewed drafts and Padlet comments from all staff, not just SAT.
9 Feb 2021	Application Coordinators Meeting	First full draft review.
5 Mar 2021	Lent term EDI Committee = SAT	Review of 2019-20 seminar and assessment data, PhD diversity, plans for Student Equality survey, WP, Male Allies, WIM seminar, “Impact of Covid”.
24 Mar 2021	Women in Mathematics Seminar on Impact of Covid on female academics	Generated ideas for supporting female colleagues.
25 Mar 2021	Application Coordinators Meeting	Review of progress and final stages.
10 May 2021	Bullying & Harassment Workshop for all staff	Workshop to feed into SAT inclusivity work
11 May 2021	Action plan workshop, all available SAT members	Generate final set of ideas to feed into Action plan.
19 May 2021	Application Coordinators Meeting	Action plan/Full document review.

To guarantee a spread of interests and backgrounds, a selection of staff was invited by the HoD to join the SAT. Student members volunteered and regularly changed due to their registration period.

SAT membership is recognised in the Departmental ‘Roles and Responsibilities’ overview. Staff employed on an hourly paid contract were paid for their time.

The Chair of the departmental SAT from 2019 was also a member of the Schoolwide Athena Swan SAT and updated on School activities. The departmental EDI Officer is a member of the School EDI network.

In addition to face-to-face meetings, discussion was also carried out via email and all SAT members were in one of the subgroups. The drafting of this application was shared between several staff and student SAT members, and coordinated by the DM, HoD and EDI Officer.

After Covid hit, our meetings moved online, and we utilised other ways to discuss and share action plan ideas (below is a screen shot of part of a Padlet wall we used). Colleagues could post and respond to ideas, and then we had a follow-up meeting to discuss:



Picture: Screenshot of Padlet wall during online discussion.

The Chair reported on SAT activities and plans in every Departmental Meeting (which all staff are expected to attend). EDI has been a standing item at Departmental Meetings since September 2004. Many other committees have EDI-related items on their agenda as well.

The departmental Culture Survey was run for a second time in June-July 2018. The survey was available online, and invitations to complete it were sent to all staff and PhD students (whether or not they were teaching as well). Where appropriate, the SAT also used data from the LSE Staff Survey, conducted February-March 2019.

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

When not functioning as the SAT, the committee meets termly as the Departmental EDI Committee. As with other committees, membership is reviewed annually, it has oversight of this action plan, and we will ensure it is linked to School-level work and appropriate training and development. [AP.3.1, 3.2].

The Committee will ensure we run a departmental culture survey every three years [AP. 3.3], and that termly reports on EDI are presented to the Departmental meeting [AP. 3.4]. Additionally, all meeting minutes and relevant information are available on the departmental intranet for transparency and input from the wider department [AP.3.5]. Other departmental committees will continue to consider EDI aspects of their areas as well.

We recognise that as a SAT, we have focussed on gender to-date, and will look at whether we need specific training and support to engage with other areas of EDI. For example, LSE is rolling out race equity training in 2021/22, and we will ensure at least one member of the EDI Committee attends that to report back and help to decide next steps for race equity generally, and for intersectionality with gender [AP.3.6].

Actions

- 3.1. Continue to review Committee membership annually. Appoint two students as Student EDI Officers in the Department to be in place for the start of the academic year 2021/22 and annually thereafter. Role will focus on students' aspects of EDI activities. They will be members of the EDI Committee. These officers can be from any of our programmes, ideally one male and one female.
- 3.2. Ensure departmental representation on LSE EDI committees and networks.
- 3.3. Repeat departmental culture survey every three years, including option to have a confidential interview to follow up.
- 3.4. Ensure termly EDI (including Athena Swan) updates are presented to the Department meeting for discussion.
- 3.5. Ensure meeting minutes and relevant EDI information is available on the departmental intranet for everyone in the Department to access, and with an option for people to contribute and get involved with EDI.
- 3.6. Member of EDI committee will attend race equality training 2021/22. Committee to have follow-up discussion on any further training necessary.

WORD COUNT SECTION 3: 585

4. PICTURE OF THE DEPARTMENT

4.1. STUDENT DATA

(i) Numbers of men and women on access or foundation courses

None: n/a

(ii) Numbers of undergraduate students by gender

Table 4.1.i illustrates that we have a majority male undergraduate student body, with women comprising just over a third. This is in keeping with the discipline and our competitor institutions, but we are frustrated with the slow progress. We are committed to improving our persistently static numbers; discussed below.

Where we do see impact is in our BAME women (and men). Approximately three-quarters of our undergraduates identify as being from a minority ethnic background. We have appointed a Departmental representative on LSE's working group designing an Inclusive Education Action Plan. We hope this contributes to BAME students' experience in our Department.

Tables 4.1.ii.A: Proportion and Number of UG Students by Gender and Ethnicity

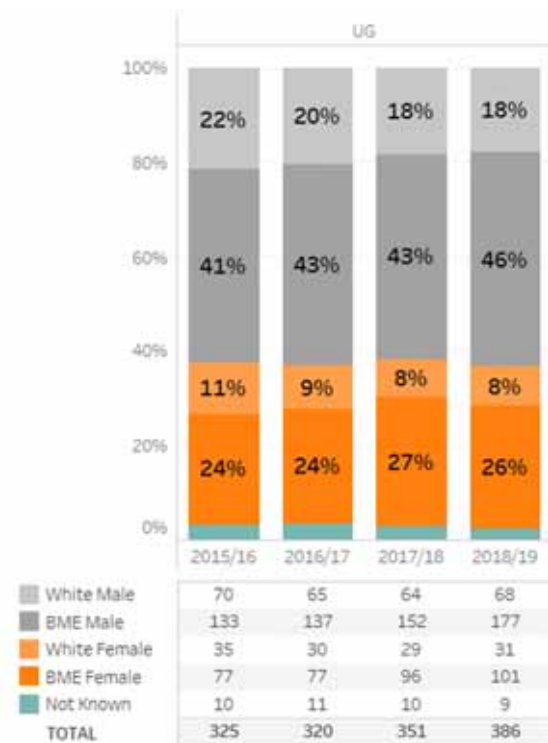
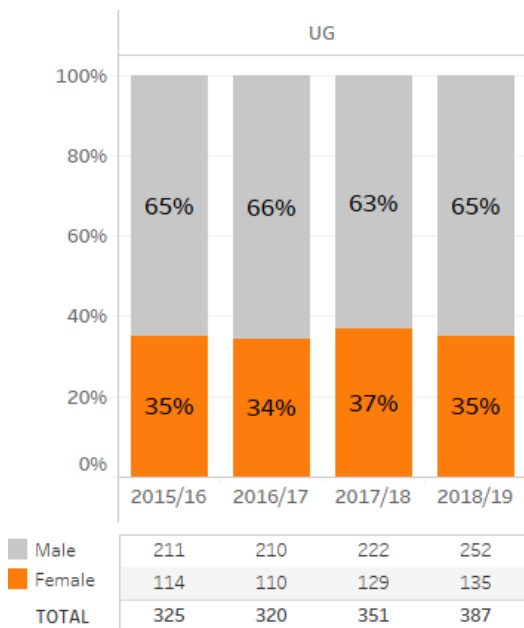
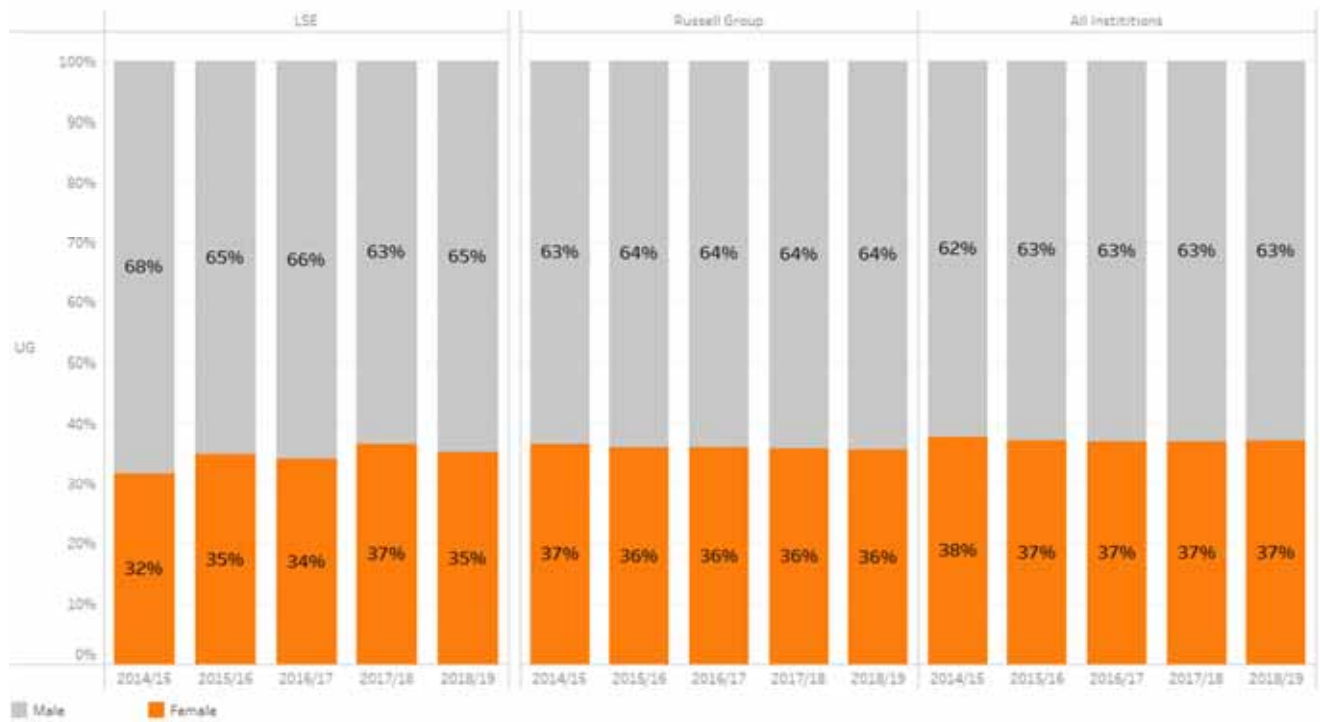


Table 4.1.ii.B: Proportion of UG Students by Gender vs. Russell Group and UK Averages (HESA data)



UG Admissions: data

Data note: Where gender or ethnicity has not been disclosed by respondents, totals for those sections appear lower than full datasets. Data source: LSE Data Management Unit.

Table 4.1.ii.C: Proportion and Number of UG Applications, Offers, and Acceptances by Gender

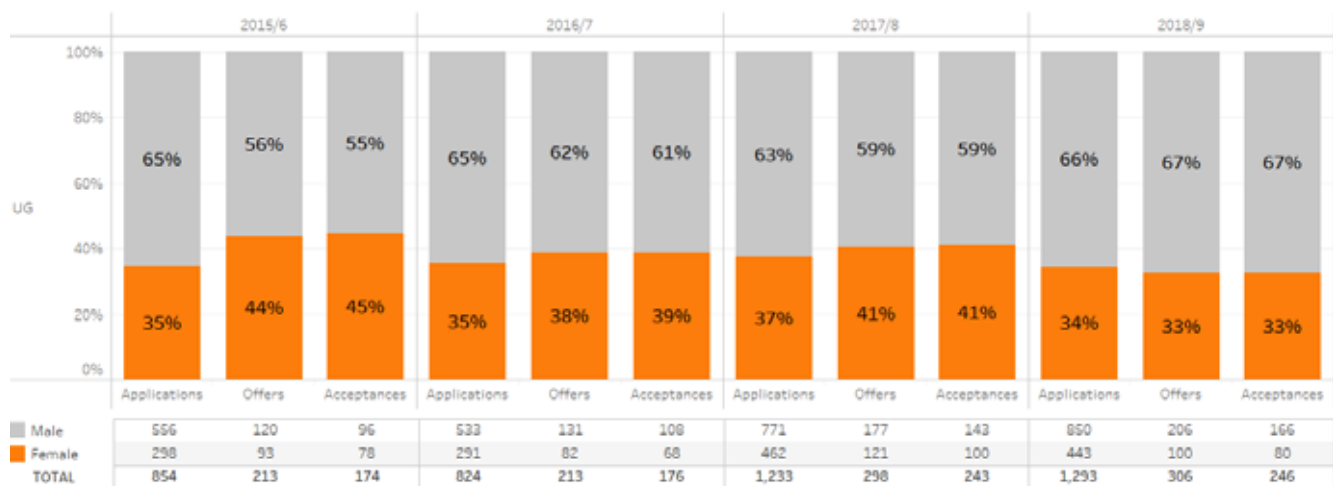
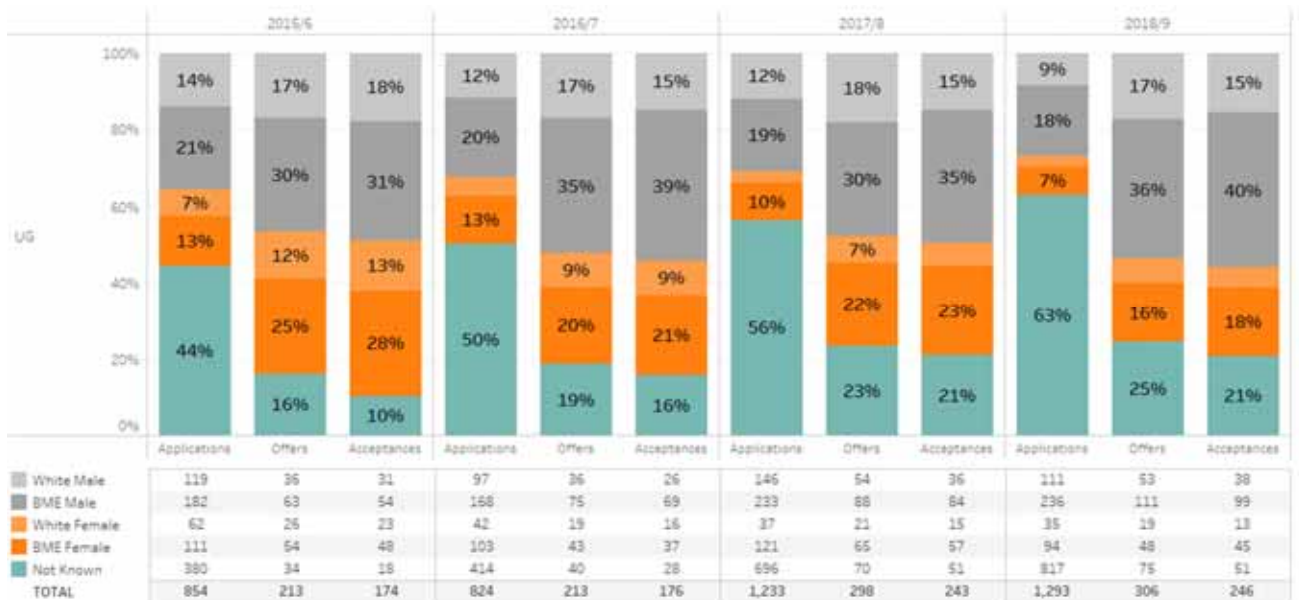


Table 4.1.ii.D: UG Application:Offer and Offer:Acceptance by Gender

Year	Of those who applied, what % got an offer?			Of those who got an offer, what % accepted it?		
	ALL	M	F	ALL	M	F
2012/13	18.5%	16.7%	21.9%	80.4%	80.6%	80.0%
2013/14	18.6%	19.1%	17.7%	79.3%	81.9%	74.1%
2014/15	26.4%	27.4%	24.5%	77.4%	76.6%	79.0%
2015/16	24.9%	21.6%	31.2%	81.7%	80.0%	83.9%
2016/17	25.8%	24.6%	28.2%	82.6%	82.4%	82.9%
2017/18	24.2%	23.0%	26.2%	81.5%	80.8%	82.6%
2018/19	23.7%	24.2%	22.6%	80.4%	80.6%	80.0%

Table 4.1.ii.E: Proportion and Number of UG Applications, Offers, and Acceptances by Gender and Ethnicity



UG admissions: reflection on data

Background: All UG data combines our three UG degrees (BSc Mathematics and Economics, BSc Mathematics with Economics, and BSc Financial Mathematics and Statistics (first cohort 2017/18)). UG programmes have identical entry requirements, a combined quota for entry, an identical 1st year, and about 50% overlap in courses in later years. Students are treated identically throughout the student lifecycle. Each programme has broadly the same demographics.

The Department does not have any part-time students. Every year a small number of students *become* registered as part-time for repeat tuition on failed courses.

Admissions: The data highlight once women apply, they have an equal chance of being offered a place. Our actions to date have focused on our online information, ensuring there is good female representation and case studies from women students on our webpages. This seems to translate into women accepting places once offered.

Our next focus therefore is increasing the overall number of women applicants. The SAT discussed this and thought we need to do more in our face-to-face interactions and with our outreach activities, collaborating with others wherever that is possible and beneficial [AP.4.1.1, 4.1.2 4.1.3].

Decliners: In the limited data available, the only noticeable difference was that female UG offer decliners more often indicated that they were looking for a programme with a placement year, which we currently do not offer.

We are not in a position to pursue this immediately, but we do want to revisit it in year three of our action plan and see if it is something we could develop with the wider School [AP 4.1.4].



Picture: Department website for UG offer holders

Impact: We introduced a new, attractive and welcoming section for students on our department website (2017/18) and a section devoted to information for offer holders (action plan 2017 points 3-4, 24-26). The increase in UG applications looks stable, with a slight increase in number of female undergraduate registrations since 2017/18. We recognise there is still scope to improve the number of female applications, and conversions from offers of a place to registration.

Actions

4.1.1. Investigate options to organise women-only open days. Increase the gender inclusivity of our regular open days.

4.1.2. Join existing activities to engage with pre-university students and their parents to boost and maintain their enthusiasm with mathematics.

4.1.3. Work collaboratively with other parts of the School to attract more female applicants.

4.1.4. Work with the wider LSE community to offer more varied programmes, potentially involving work placement or study-abroad years, which seem to appeal more to women.

UG Attainment: data

Table 4.1.ii.F: UG Attainment by Gender

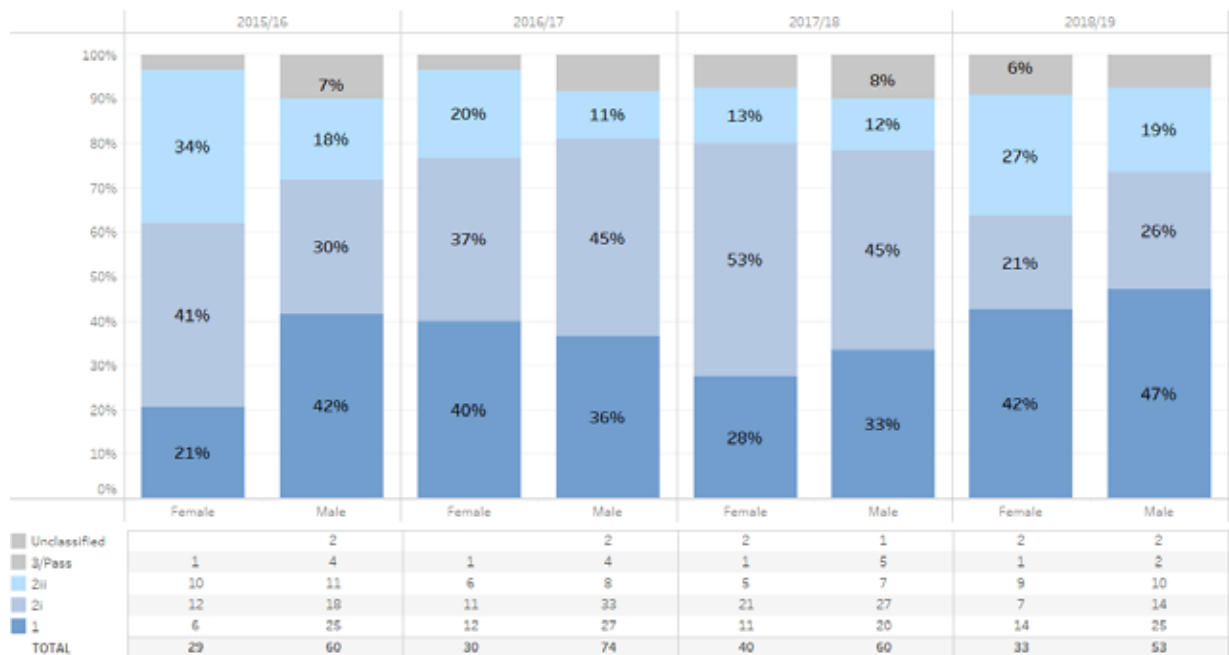


Table 4.1.ii.G: UG Attainment by Gender vs. Russell Group Averages (Mathematical Sciences)

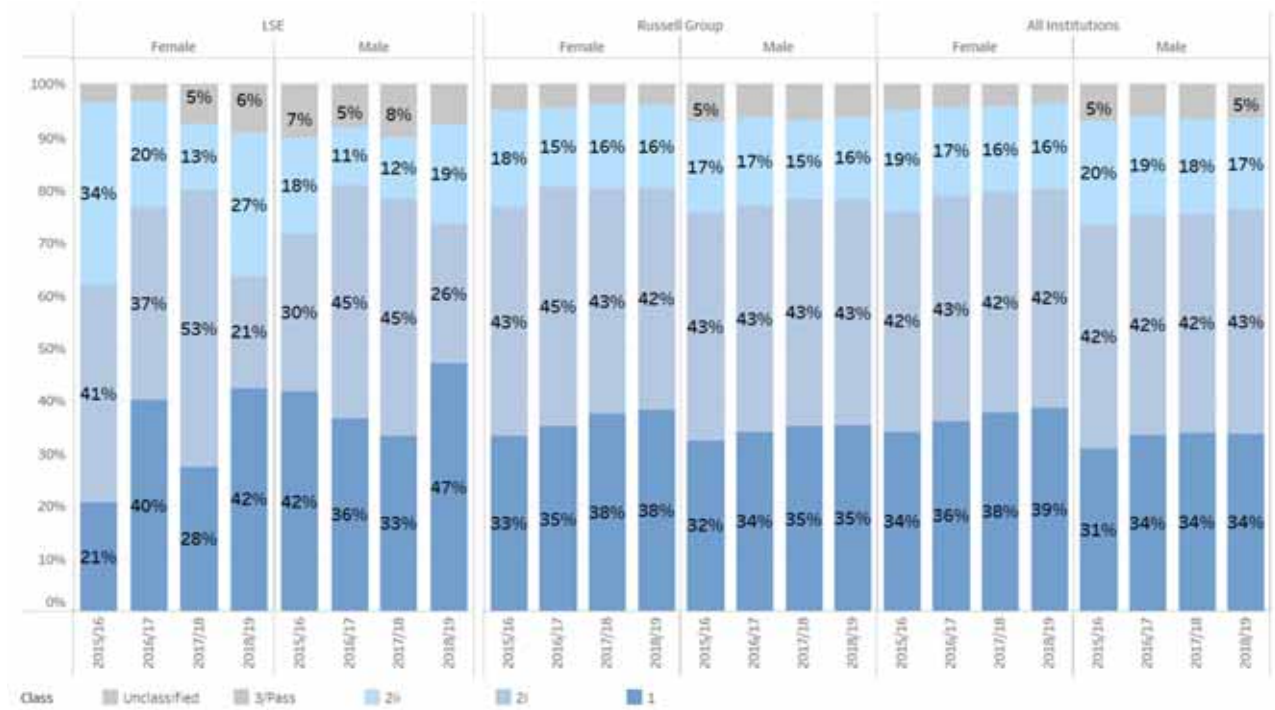


Table 4.1.ii.H: UG Attainment by Gender and Ethnicity, aggregate 2014/15 to 2018/19

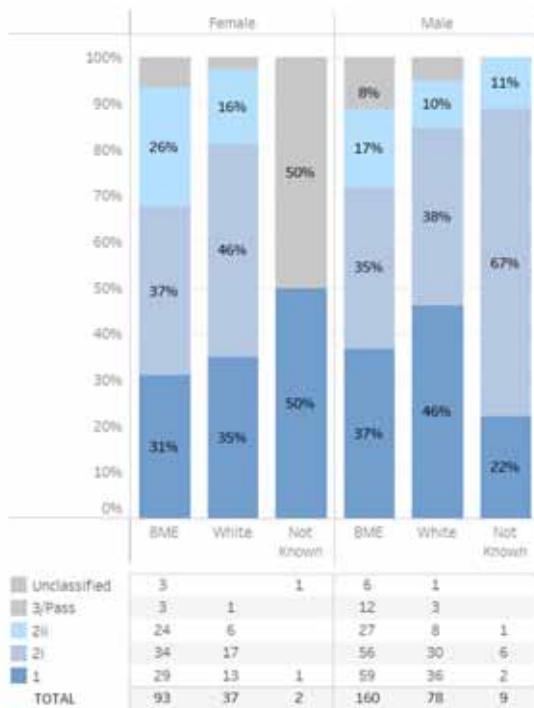


Table 4.1.ii.I: Example of review of difference in Marks by Gender at UG Module Level

- F Number of modules where female students' average mark was more than 4% higher than male students.
- M Number of modules where male students' average mark was more than 4% higher than female students.
- = Number of modules where male and female students' average marks were within 4% of each other.

Note: Data refers to all students on a course, not just Mathematics students.

	1st year courses			2rd year courses			3rd year courses		
	F	M	=	F	M	=	F	M	=
2010/11	1/4	0/4	3/4	2/6	2/6	2/6	5/10	4/10	1/10
2011/12	0/4	0/4	4/4	0/6	3/6	3/6	3/10	4/10	3/10
2012/13	1/4	0/4	3/4	0/7	0/7	7/7	2/11	7/11	2/11
2013/14	0/4	1/4	3/4	1/7	2/7	4/7	1/11	7/11	3/11
2014/15	1/4	0/4	3/4	1/7	2/7	4/7	1/11	4/11	6/11
2015/16	1/4	1/4	2/4	1/7	0/7	6/7	3/12	4/12	5/12
2016/17	1/4	0/4	3/4	2/7	0/7	5/7	2/13	6/13	5/13
2017/18	1/4	0/4	3/4	0/8	1/8	7/8	1/13	9/13	3/13
2018/19	0/4	1/4	3/4	3/8	3/8	2/8	2/13	5/13	6/13

UG Attainment: reflection on data

Male students generally achieve higher final classifications than female students. We obtained and analysed results by module in addition to by programme (see Table 4.1.ii.G). The difference is concentrated in third year courses, where female students obtained lower marks in a significant number of courses.

We carried out student focus groups to try to establish the cause of this, but were unable to find anything specific. The SAT discussed this at length; conversations focussed on the impact of a male dominated environment, sense of belonging and support, biases of academics in judging students and academic content. It was noted that differences could not be explained purely by the gender of the lecturer.

We have since diversified assessment methods, including introducing continuous assessment, replacing unseen examinations with coursework, and (group) project work. We enhanced one-to-one support in our Maths Support Centre and promoting the Academic Mentoring system. We now have UG students working as volunteer peer supporters in our Maths Support Centre. In the pilot year these were 6 male and 4 female students. We still have more to do here **[AP. 4.1.5]**.

In addition to the work above, the SAT discussed how we can refer and represent the work of more women in the content of our curriculum, which would complement our other actions and contribute to a greater sense of belonging **[AP. 4.1.6]**.

We also note that BME men and women are less likely to get a 1st or 2.1 than white women (Table 4.1.ii.F). We participate in school's activities around designing an Inclusive Education Action Plan, which is focussed on academic development and curriculum enrichment. We know we need to do much more work on race, and also think intersectionally. This work will become a focus of the EDI Committee.

Finally, we want to tackle academic bias. It is difficult to measure the impact and prevalence of bias, but it seems likely it is a contributing factor.

Impact: Results naturally vary based on individuals in each cohort but we are in general now seeing higher female attainment than 5 years ago. In 2018/19 the percentage of female students obtaining first class degrees was double that of 2015/16 (21% to 42%).

Actions

4.1.5. Do a more detailed analysis of examination statistics per gender, cross referencing with course choice, assessment method, etc. Invite the departments of Economics and of Statistics to do a similar assessment of their courses followed by our students.

Continue to increase diversity in methods of teaching and assessment. Review attainment on assessment components which are not an unseen written examination (e.g. project, groupwork, coursework, continuous assessment).

Explore the factors which could be contributing to attainment differences as students progress: environment, bias, support, etc.

4.1.6. Engage with and implement recommendations from the ongoing school-wide initiatives around the attainment gap between white and BAME students.

Diversify the curriculum: look to increase the representation of past and present female and BAME mathematicians and their research, taking an intersectional approach and working alongside the School's work on diversifying the curriculum.

(iii) Numbers of men and women on postgraduate taught degrees

Table 4.1.iii.A: Proportion and Number of PGT Students by Programme and Gender

Programme	2015/16		2016/17		2017/18		2018/19	
MSc in Applicable Mathematics	42%	58%	35%	65%	36%	64%	53%	47%
MSc in Financial Mathematics	25%	74%	58%	42%	31%	69%	32%	68%
MSc in Operations Research & Analytics					50%	50%	50%	50%

Department	2015/16		2016/17		2017/18		2018/19	
Mathematics	35%	64%	46%	54%	42%	58%	45%	55%

Programme	2015/16		2016/17		2017/18		2018/19	
	Female	Male	Female	Male	Female	Male	Female	Male
MSc in Applicable Mathematics	13	18	11	20	10	18	15	14
MSc in Financial Mathematics	5	14	15	11	8	18	10	21
MSc in Operations Research & Analytics					29	29	15	15
Grand Total	18	32	26	31	47	65	41	50

Table 4.1.iii.B: Proportion and Number of PGT Students by Gender and Ethnicity

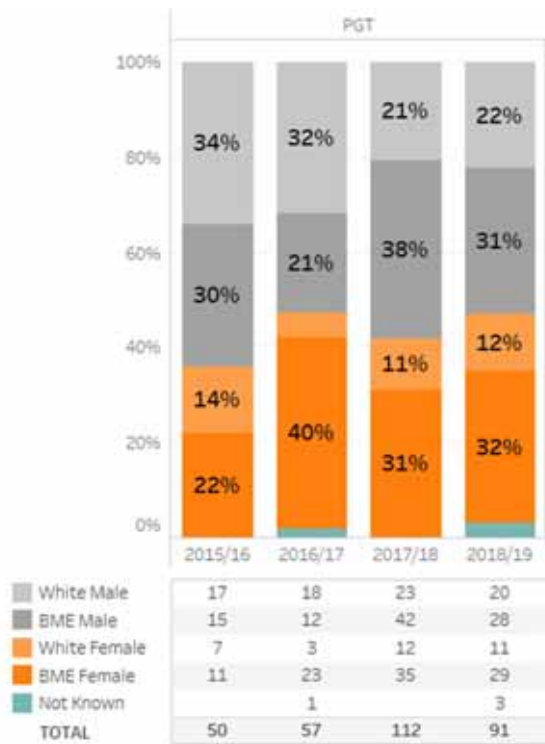
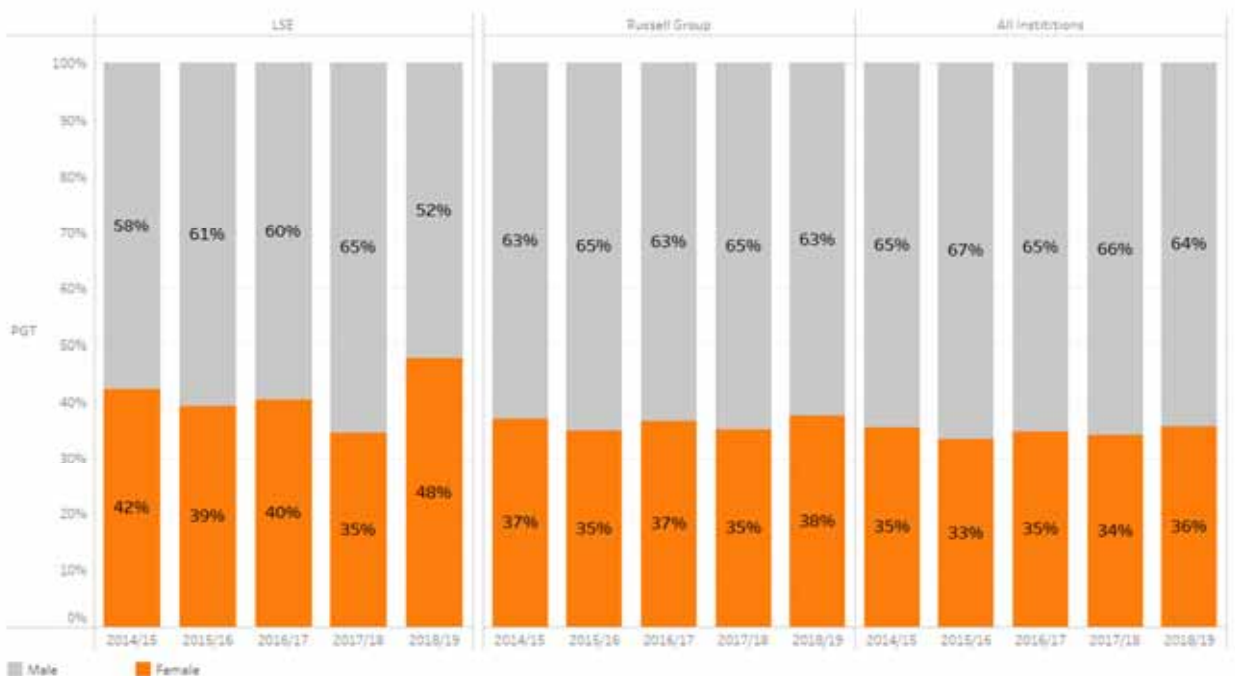


Table 4.1.iii.C: Proportion of LSE Mathematics and Statistics PGT Students by Gender vs. Russell Group Averages



Female representation at PGT is higher than at UG, for both BAME and white women. 2020/21 data shows that we have achieved a 50:50 balance of men and women PGTs for the first time. We believe that the work we have done on presenting the

Department in our recruitment material, including publicising our Athena Swan work, has made a difference.

We want to ensure this trend continues for subsequent years.

PGT Admissions: data

Table 4.1.iii.D: Proportion and Number of PGT Applications, Offers, and Acceptances by Gender

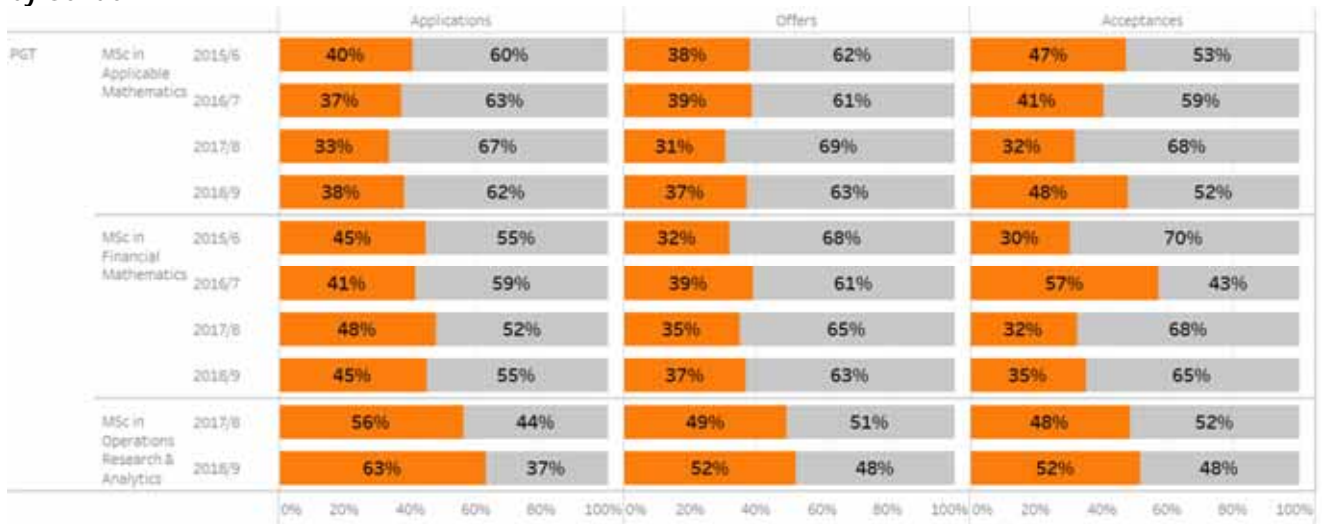
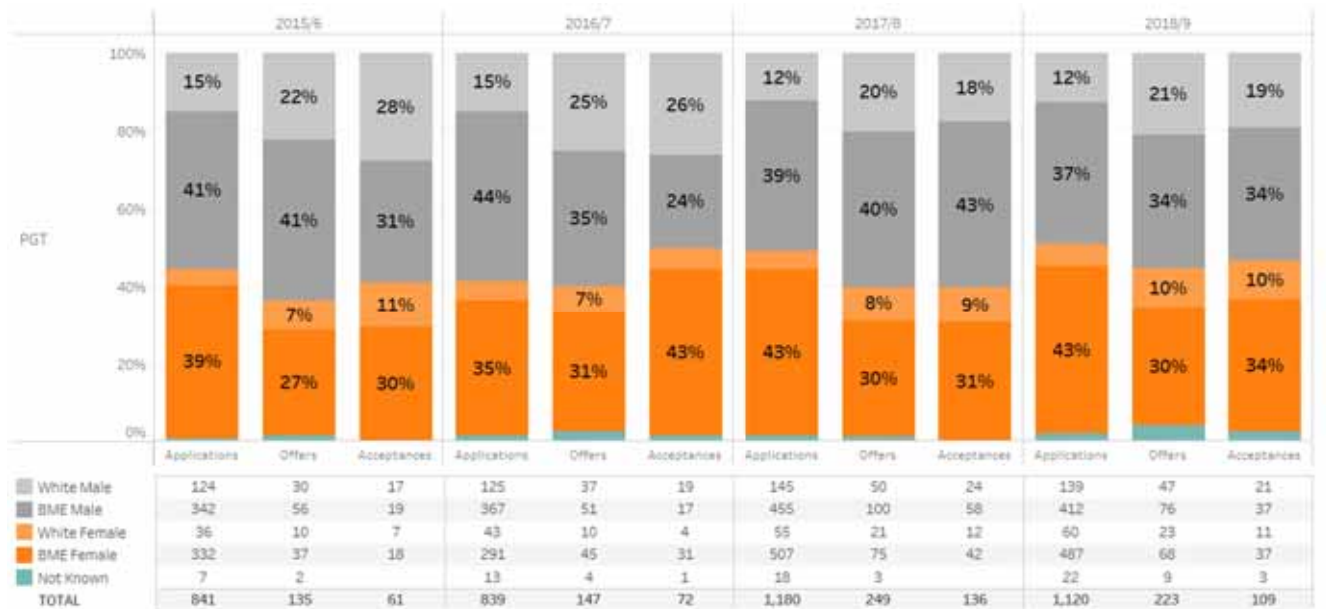


Table 4.1.iii.E: Proportion and Number of LSE PGT Applications, Offers, and Acceptances by Gender and Ethnicity



PGT Admissions: reflection on data

Part-time study: Our PGT programmes are not offered part-time. There are no plans to change this.

Admissions trends: Our accepted student numbers are small, leading to year-to-year fluctuations. Overall we have reasonable rates of applications from women, with 48% and 49% in the last two years' data, evidencing impact as this has increased from 40% in 2015/16.

There are indications that female applicants get fewer offers. Our first thought was that there is bias within the selection process. Our MSc admissions are processed by selectors in the central LSE Admissions team, who are removed from the Department and do not have any overall responsibility for the selected students, which we thought would create less bias. However, the criteria against which students are assessed could be biased [AP.4.1.7].

Another possible explanation is that although our MScs are advertised with a 2.1 (or equivalent) as a minimum entry requirement, in practice a very high 2.1 or 1st is required to get an offer. We know that generally across higher education, more men graduate with UG 1sts, and this may impact on Masters' offers. We will work with central admissions to explore possible initiatives [AP. 4.1.8].

This gives another reason to put more effort into ensuring our women UG students leave with the same rate of 1sts as our men. Most of our MSc students are not LSE graduates, but if every mathematics department plays their part in tackling this, we all benefit. This is a long-term aim, which will take time to have an impact.

We are pleased to see that when offers are made, women have high rates of acceptances. There are programme variations, with Financial Mathematics traditionally having the fewest female students, although this has disappeared in 2020/21 as well.

Impact: Our efforts to improve marketing focus and images and pre-arrival support for applicants show results. In 2020/21 we have a 50% female MSc cohort, with little difference between the programmes.

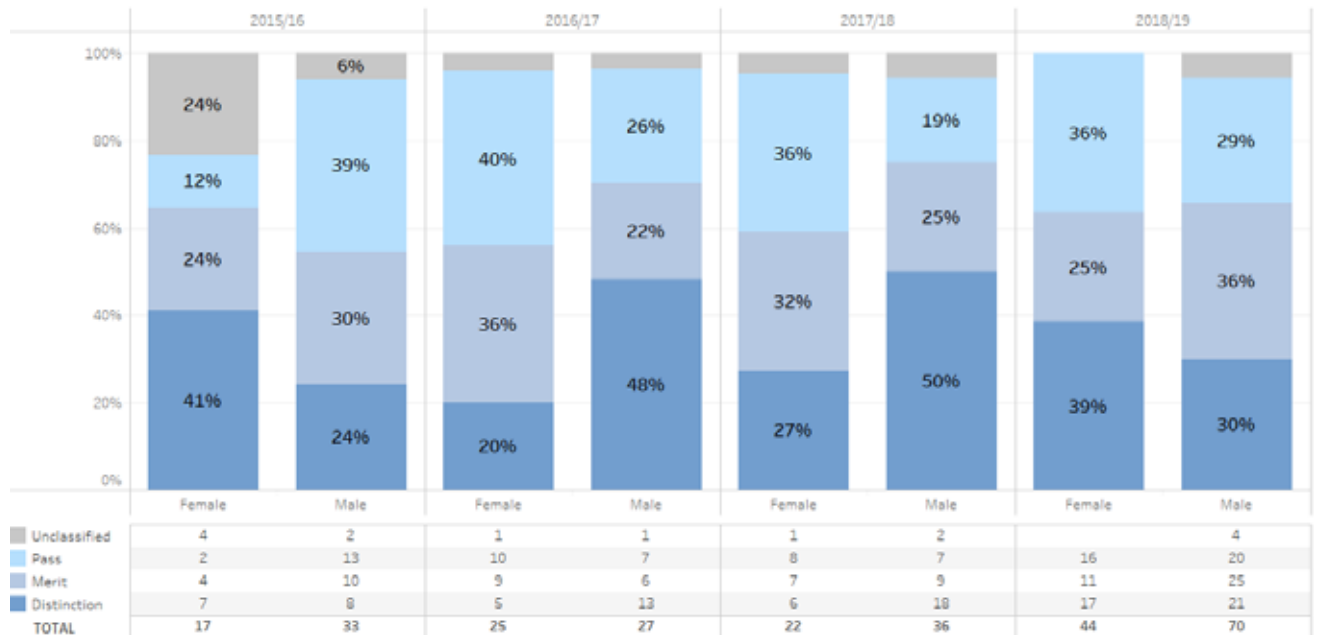
Action

4.1.7. Review admissions criteria for all three MSc programmes to uncover indirect gender bias.

4.1.8. Work with central admissions to explore possible positive action interventions.

PGT Attainment: Data

Table 4.1.iii.G: PGT Attainment by Gender



Data note: Students in the 10-month MSc Financial Mathematics graduate in the year they start; students in the other two MSc programmes graduate the year after. Therefore, numbers in this table are not directly comparable to student numbers in earlier tables.

Table 4.1.iii.H: Example of review of difference in marks by Gender at PGT Module Level

- F Number of modules where female students' average mark was more than 4% higher than male students.
- M Number of modules where male students' average mark was more than 4% higher than female students.
- = Number of modules where male and female students' average marks were within 4% of each other.

	MSc Courses with more than one candidate		
	F	M	=
2010/11	2/14	10/14	2/14
2011/12	4/15	7/15	4/15
2012/13	2/14	6/14	6/14
2013/14	2/15	7/15	6/15
2014/15	1/14	11/14	2/14
2015/16	0/15	12/15	3/15
2016/17	3/15	5/15	7/15
2017/18	6/22	8/22	8/22

PGT Attainment: reflection on data

Male PGT students generally achieved higher results (Merit/Distinction) than female students. The 2018/19 data look more promising, which we attribute to our recent interventions:

We now have a standard practice to annually review examination statistics and individual course results by gender. We took action and increased diversity in methods of teaching and assessment (as with UG), such as introducing assessed groupwork and oral presentations, and increased the number of courses with summatively assessed coursework or continuous assessment.

We are not complacent, and will keep this under review and implement more actions where necessary, but we also want to ensure we give our current actions enough time to have a long-term impact [AP.4.1.10].

We also focussed on sense of belonging. We want women to feel at home in our Department, and to be able to thrive. We have introduced various women-specific talks and meet-ups (described in full below), and additionally have dedicated PGT pre-arrival support [AP.4.1.9]. We have also consciously promoted female achievement at PGT, and both of our MSc prizes are named after women mathematicians [AP.4.1.11].



Picture: 2020 MSc prize winners (both MSc prizes are named after female mathematicians; one past member and one with strong connections to the Department)

Impact: Although the number of students concerned is quite small (therefore unwise to make assured statements on trends) the overall picture looks more gender balanced in 2018/19, following our interventions.

Actions

4.1.9. Ensure pre-arrival support for PGT students continues to promote a friendly and welcoming Department, and act on any relevant feedback

4.1.10. Continue to review examination and assessment data by gender, reporting to Teaching Committee and EDI Committee on an annual basis.

4.1.11. Promote women's achievement at PGT (with permission of the students).

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

Data notes: LSE operates separate procedures for selecting applicants to study for a PhD and selecting applicants who will be offered funding. Unless otherwise indicated, all references to 'offers' refer to being (conditionally) accepted as a PhD student. As there are overall fewer PGR students, we refer in this section to datasets of more than 4 years.

PGR Admissions: data

Table 4.1.iv.A: Proportion and Number of PGR Students by Gender

[... table removed in public version because of small numbers in certain categories]

Table 4.1.iv.B: PGR Applications by Gender for First Choice Mathematics

	Female		Male		Total
2012/13	1	3%	28	97%	29
2013/14	6	17%	29	83%	35
2014/15	7	19%	29	81%	36
2015/16	8	28%	21	72%	29
2016/17	8	27%	22	73%	30
2017/18	5	18%	23	82%	28
2018/19	10	36%	18	64%	28
2019/20	7	21%	27	79%	34

Data note: Candidates applying for a PGR degree can indicate a second programme choice without paying additional application fees. Our experience is that this leads to opportunistic choices. Applicants who receive an offer from their first choice Department are never seen by the second choice Department. We therefore consider first choice applicants only in this data.

Table 4.1.iv.C: Percentages of PGR First Choice 'Application to Offer' and 'Offer to Acceptance' by Gender

	Of those who applied, what % got an offer?			Of those who got an offer, what % accepted it?		
	ALL	M	F	ALL	M	F
2012/13	27.6%	28.6%	no offers	37.5%	37.5%	no offers to accept
2013/14	37.1%	34.5%	50.0%	69.2%	80.0%	33.3%
2014/15	13.9%	17.2%	no offers	80.0%	80.0%	no offers to accept
2015/16	31.0%	33.3%	25.0%	77.8%	100.0%	0.0%
2016/17	46.7%	45.5%	50.0%	42.9%	50.0%	25.0%
2017/18	39.3%	30.4%	80.0%	36.4%	57.1%	0.0%
2018/19	39.3%	38.9%	40.0%	54.5%	57.1%	50.0%

PGR Admissions: reflection on data

Our number of female PhD students was historically very low. We have worked hard to:

- improve gender diversity on our webpages;
- improve our responses to enquiries;
- improve interview practice.

Furthermore, PhD admissions have recently been devolved to academic departments, which means we can now make offers and funding decisions based on who we think is the best candidate, rather than who a School panel thinks is best.

We are encouraged to see the proportion of women PhDs increase from 6% in 2015 to 23% in 2019. We are not complacent and know we still have a long way to go, but we have made an impact.

We have formed a departmental working group to review our processes to check that they are fair and transparent, and will continue to encourage future applicants [AP. 4.1.12, 4.1.13, 4.1.14].

Part-time study: All our PhD students initially register for a full-time programme. We support all requests for a change to part-time study; these are usually made at later stages of study. Reasons include financial and caring responsibilities. Of the 45 people who began a PhD since 2009/10, 4 became part-time students ([... *gender data removed in public version*]); they all graduated.

LSE is reluctant to accept initial part-time PGR registrations, since historically they were less likely to complete their degrees. This may mean that some candidates are less likely to apply. We will investigate the possibilities of having a formal part-time PGR programme, and if successful advertise this explicitly [AP.4.1.15].

Intersectionality: We considered the PGR student data by both ethnicity and gender: our student body is quite diverse; of the 14 students in HESA data for 2018/19, 8 were BME students. We do not present more detailed data: small numbers make individuals identifiable.

Impact: We have seen a steady increase in the number of female PhD students in the last 4 years. We have now reached the UK average M:F ratio. There is still room for improvement and we want to be better than average! In particular, we will take every opportunity available from the recent redesign of the School's scholarship award process to help us to continue this improvement for all underrepresented groups.

Actions

4.1.12. Organise "Thinking of doing a PhD" session for our current students, covering all research areas. Ensure female faculty are presenting at those events.

4.1.13. By the 2022/23 intake, ensure departmental working group reviews and clarifies departmental processes for PhD admissions to ensure the processes are fair and transparent whilst not unfairly raising expectations.

4.1.14. By the 2022/23 intake, ensure the departmental working group reviews and clarifies departmental processes for scholarship awards to guarantee that processes are fair and transparent whilst not unfairly raising expectations.

4.1.15. Explore options and lobby the School to have formal part-time PGR programmes.

PGR Attainment: data and reflection on data

Table 4.1.iv.D: PhD/MPhil Awards made, by Gender

[... *table removed in public version because of small numbers in certain categories*]

Of the 45 students who began PhD study since 2009/10, 5 students withdrew [... *gender detail removed in public version*]. There is no pattern of when or why: one did within months of starting, others after 3 years.

(v) Progression pipeline between undergraduate and postgraduate student levels

As both our UG and PGT degrees attract many students who are interested in pursuing a career outside academia, there are few students who move from one level to the next within our degrees.

Our aim is to be altruistic in our approach, e.g. if we ensure our women UGs leave with good degrees, that should benefit the mathematics community as a whole (and most importantly, the student).

We offer diverse careers events, and will start running an aspirations and achievements survey for our postgraduates **[AP. 4.1.16, AP. 4.1.17]**.

Actions

Diversify careers events

4.1.16. Offer, in cooperation with LSE Careers Services, career events aimed at all degree levels that showcase the whole spectrum of possible careers and options for further study. Ensure that presenters and panel members at career events have a gender balance.

Aspirations and achievements

4.1.17. Conduct an annual post completion survey of graduating students. Do not just ask what they are going to do, but also if this is as intended (be it further studies, academic, industry, etc.).

4.2. ACADEMIC AND RESEARCH STAFF DATA

Data note: Unless indicated otherwise, all numbers refer to FTE over the HR year which runs from 1 August until 31 July. This means that positions that start just before or end shortly after those dates can lead to small fractions.

(i) Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only

SILVER APPLICATIONS ONLY

Where relevant, comment on the transition of technical staff to academic roles.

Not applicable: no technical staff.

Table 4.2.i.A: Academic staffing categories and contract functions in the Department during the reporting period

Staffing category	Category comprises	Contract Function
Early career	Research Officer	Research only
Other academic	Occasional Researcher	Research only, hourly paid
	Graduate Teaching Assistant	Teaching only, hourly paid
	Guest Teacher	Teaching only, hourly paid
Faculty	Assistant Professorial Lecturer	Teaching only
	Assistant Professor	Research and Teaching
	Associate Professor	Research and Teaching
	Professor	Research and Teaching
Professional	Professional Services Staff	Administration only

Table 4.2.i.B: Academic and Research Staff (FTE) by Grade, Gender and Ethnicity (where known)

[... table removed in public version because of small numbers in certain categories]

Despite our actions to try to improve the gender imbalance, the record of hiring female academic staff in the reporting period has been disappointing. The Department has seen considerable growth in recent years, hiring at early career level as now recommended by the School (e.g. Fellow, Assistant Professor). All faculty appointments since 2008 have been Assistant Professors, so any changes in the composition of the professoriate have to come from promotion of existing staff. The Department must ensure that new appointments strengthen further progress in this area. See Section 5.1.i for actions and further observations.

The 'Other Academic Staff' category is mostly formed of guest teachers, which include retired schoolteachers, recent PhD students (from LSE and other institutions) bridging a period before or between post-doctoral positions, GTAs (current PhD students who teach), and a small group (re-)starting an academic career. For the last group, we recognise that there are limited opportunities within the Department.

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

The Department does not have zero-hour contracts.

Table 4.2.ii.A: Academic and Research Staff FTE and Headcount by Contract Type, Gender and Ethnicity (where known)

[... *table removed in public version because of small numbers in certain categories*]

Table 4.2.ii.B: Academic and Research Staff FTE by Contract Function, Gender and Ethnicity (where known)

[... *table removed in public version because of small numbers in certain categories*]

Observation of the unbalanced gender composition of staff is also applicable here. Athena Swan analysis has enabled us to see more clearly the gender imbalance in all categories. In view of the small number of permanent faculty positions we can hire over the years, we have concentrated our efforts on early career staff. At the moment (2020/21) we have [... *gender information removed in public version*] LSE Fellows (out of [...]) and one [...] post-doctoral researcher. The School is currently exploring the viability of a scheme to employ PhD students on fixed term post-doctoral contracts. We welcome this proposal [... *rest of sentence removed in public version*].

(iii) Academic leavers by grade and gender and full/part-time status

One permanent member of academic staff left in the reporting period, in August 2015. One female PS Staff left in 2018. We see the fact that so few permanent staff leave as an indication of the overall positive atmosphere for staff in the Department.

The School asks permanent staff to complete an exit questionnaire, and we have recently started our own Departmental survey for other leavers (but not yet had any responses).

Once an hourly paid member of staff has more than four years' continuous service, they are issued with an open-ended contract, unless there is a legal reason to justify the issue of a further fixed-term contract. GTAs may not be employed for more than 4 years. This matches usual PhD registration periods and ensures these roles become vacant to allow other LSE students to gain experience. We have good continuation of guest teachers and an expected regular turnover of PhD student teachers.

Impact: The pipeline and composition of academic staff in the Department show gender imbalance at several career stages in the past which our work in more recent years is now starting to address. We have been able to interview at least two candidates of each gender for faculty recruitment rounds since 2018. A female Assistant Professor has been appointed to start in September 2021.

Actions

All action points expanded on elsewhere: recruitment and promotions (see 5.1), development of hourly paid teachers (see 5.3).

WORD COUNT SECTION 4: 2177

5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

5.1. Key career transition points: academic staff

(i) Recruitment

Table 5.1.i.A: Applications, shortlisted and longlisted candidates and appointments 2009–2018

Data note: Data prior to 2016 is based on departmental records; HR did not track this information.

Year	Position	Applications				Longlist			Shortlist (Interview)			Appointed	
		M	F	PNTS	%F	M	F	%F	M	F	%F	M	F
Academic													
2021	Assistant Professor (GT)	48	6	N/Av	11%	24	6	20%					
2020	LSE Fellow (internal only)	1	1	0	50%	N/L	N/L						
2020	LSE Fellow	21	4	0	16%	N/L	N/L						
2019	LSE Fellow (single nomination)		1		100%		1	100%					
2019	Research Officer (Grant)	14	2	1	12%	N/L	N/L						
2018	Research Officer (Grant)	9	2	0	18%	N/L	N/L						
2018	Assistant Professor (OR)	57	17	3	22%	27	7	21%					
2018	LSE Fellow (2 posts)	40	7	3	14%	N/L	N/L						
2017	Assistant Professor	73	15	4	16%	50	9	15%					
2016	Assistant Professor (2 posts)	91	15	N/Av	14%	15	1	6%					
2014	LSE Fellow	25	7	N/Av	22%	N/L	N/L						
2012	Lectureship	98	19	N/Av	16%	9	1	10%					
Professional Services													
2018	Dept Administrator	14	33	0	70%	N/L	N/L						
2018	Dept Administrator	10	21	0	68%	N/L	N/L						
2018	Research Manager (internal only)	0	2	0	100%	N/L	N/L						
2016	Dept Administrator (internal only)	0	4	0	100%	N/L	N/L						

PTNS= Prefer not to say

N/L = No Longlisting

N/Av = Data not available

[... final two columns cleared in public version, since small numbers would make identification of specific people possible]

Our recruitment record is incredibly disappointing, and an area of much discussion for the SAT, both in considering the low number of women applicants and that for many years we did not recruit a woman to a permanent faculty position from those that applied.

Increasing applications

While we still need to do more, we have seen some increase in the proportion of women applicants for faculty positions from 14% in 2016, to 22% in 2018. Actions we took:

- Inclusion of diversity statements in our adverts: "LSE is committed to building a diverse, equitable and truly inclusive university. For this post, we particularly welcome applications by women and ethnic minorities."
- We introduced a vibrant and inclusive "About the Department" document on our website. The peaks in accessing this document match recruitment periods, as hoped.

- We have begun advertising vacancies in women-specific networks like the European Women in Mathematics website, and on social media.

We want to do more and will now focus attention on having dedicated EDI pages in our Departmental web pages, with specific information on our EDI work [AP. 5.1.1b].

We will also produce videos about working in the Department, and applying to work here, emphasising our commitment to EDI, our family-friendly working arrangements, and explaining how the process works. We hope this will make people feel more welcome and confident in the Department offering an inclusive workplace.

The SAT also discussed the impact of advantages for men in their studies or earlier career, leading to them having more established CVs and more publications. This can give an advantage when applying, especially since we mostly recruit externally at Assistant Professor level. We will include information on our webpages stating that we are not necessarily looking for someone with the most publications and encourage applicants to demonstrate their potential and ambitions [AP. 5.1.1b].

Impact: The percentage of female applications for a faculty position increased from 14% (2016) to 16% (2017) to 22% in 2018 (some applicants did not disclose gender). 33% of applications for the Research officer position in 2018 were female.

Staff in general are positive about the fairness of our recruitment process, although, admittedly, the respondents are predominantly male.

Q11 The recruitment process in my Department is fair

	ALL STAFF	Male	Female	Gender not disclosed
Strongly agree	22	17	3	2
Slightly agree	7	2	1	4
Neither agree nor disagree	1	1	0	0
Slightly disagree	1	0	1	0
Strongly disagree	0	0	0	0
Don't know / Prefer not to say	6	3	1	2
TOTAL	37	23	6	8

Q12 My Department takes positive action to encourage women and men to apply for posts in areas where they are in a group which is under-represented, e.g. encouraging appropriately qualified colleagues to apply for posts; using inclusive images in recruitment materials; including a statement in job adverts that applications are welcomed from under-represented groups

	ALL STAFF	Male	Female	Prefer not to say / no response
Strongly agree	19	11	3	5
Slightly agree	9	7	2	0
Neither agree nor disagree	2	1	0	1
Slightly disagree	2	0	1	1
Strongly disagree	0	0	0	0
Don't know / Prefer not to	5	4	0	1
TOTAL	37	23	6	8

Q27 Personally, I would welcome more positive action to promote gender equality

	ALL STAFF	Research Student	Male	Female	Gender not disclosed
Strongly agree	11	1	6	3	3
Slightly agree	9	3	9	3	0
Neither agree nor disagree	11	2	10	1	2
Slightly disagree	2	0	2	0	0
Strongly disagree	0	1	1	0	0
Don't know / Prefer not to say	2	0	0	0	2
TOTAL	35	7	28	7	7

Impact: The Culture Survey indicated an increased awareness (since the previous survey) from male colleagues about positive action taken to encourage applications from underrepresented groups. The agreement on welcoming **more** positive action increased from 70% to 87% between the 2016 and 2019 surveys.

Recruitment process

Faculty recruitment panels ('Selection Committees') at LSE normally comprise:

- independent Chair (a senior LSE office holder);
- two Department members (including the Head);
- one member from a related Department (Statistics, Finance, Economics).

The latter three members must contain at least one from both genders.

The selection process starts as follows:

- CVs of all applicants are made available to all faculty, with a request for feedback. Selection Committee uses that to form a longlist.
- Faculty are informed of that longlist, with the request to look at those applicants' CVs and further documents in detail.

- This is followed by a meeting for all faculty to discuss the applicants and decide the shortlist.

Shortlisted candidates are invited individually for a day, during which they:

- meet staff individually and in groups and meet PhD students;
- give a seminar (with question time) to all members;
- have lunch and dinner (if desired) with members of the Department.

After those visits, the departmental ranking is determined in a meeting to which all faculty are again invited. The final decision regarding job offers is made by the Selection Committee, based on the application documents and the reports from its members.

All academics in the Department have undertaken EDI training, either during their induction or since. The SAT discussed the opportunity for bias within the process.

We introduced an aspirational target in 2016 that longlists should have at least 35% applicants from both genders who meet the requirements of the person specification, and shortlists include at least two candidates from both genders. To achieve this, we will implement the actions below, including continuing to break down stereotypes of what a good mathematician looks like, for instance by encouraging more men to attend our 'Women in Mathematics' workshops.

Impact: For the last 3 academic recruitment rounds (2017 and 2018), 9 of 50 (18%) and 6 of 26 (23%) longlisted applicants were female. Although this was a clear improvement on 2016 (1 of 15, 7%) we did not meet our aspirational target. We met our shortlist target of 'at least two candidates from both gender' in 2018 and 2021; we did not meet it in 2017.

Actions

5.1.1. Recruitment - advertising

- Ensure that all recruitment material actively encourages a diverse pool of applicants. Include a check that language used does not alienate female applicants. Promote schemes aimed at staff with caring responsibilities.
- Create a new page on the departmental website, with some parts specifically aimed at potential job applicants, which includes:
 - Information on our EDI work, a statement/video from the HoD on our commitment to EDI and signposts to relevant LSE EDI policies.
 - Videos on our application processes, explaining what happens at each stage.
 - Details on what information we like to see in covering letter, research and teaching statement. Emphasise that we are looking for future potential and are keen to hear about contributions to EDI in mathematics.
- Investigate possibilities of using direct approaches to increase the number of female applicants, for instance by targeting females explicitly and by using existing contacts to get details of potential female applicants.

5.1.2. Recruitment – selection

- a). Maintain the aspirational target that longlists for academic positions should have at least 35% applicants from both genders, and shortlists to include at least two candidates from both genders.
- b). Produce an EDI Checklist for recruitment and circulate this to all staff at the start of each recruitment round. At all selection meetings, make attendants aware of the main points of this checklist, in particular regarding bias and the requirement that all decisions be made solely on material provided by applicants.
- c). Introduce a strict requirement that staff declare a conflict of interest regarding any of the applicants.

5.1.3. Internal culture

Continue to run 'Women in Mathematics' seminars and workshops. Take more action to encourage male attendance from all levels (students to faculty).

(ii) Induction

Central LSE provision:

NAIP: The New Academic Induction Programme (NAIP) for academics (including LSE Fellows) joining LSE runs in September. The programme includes a welcome from key LSE office holders, an introduction to academic life at the School, and a networking reception. The programme also covers teaching and learning issues, and academic mentoring.

All new academic staff and LSE Fellows in Mathematics attend the NAIP. It forms the core workshop requirement for the Associate Level of the PGCertHE, which is an Interim Review (IR) requirement for Assistant Professors appointed pre-IR. LSE requires new staff to complete mandatory EDI training.

Departmental provision:

Guaranteed mentors: Assistant Professors in the Department are assigned two members of the faculty as mentor; one Professorial and one more junior colleague to help them settle in and thrive, sharing experience of all career stages.

Welcome: At least one month before joining, the DM sends a support pack about aspects of the Department for new staff. It now has a prominent section on the Department's commitment to and actions towards EDI. It is revised and updated for each new starter.

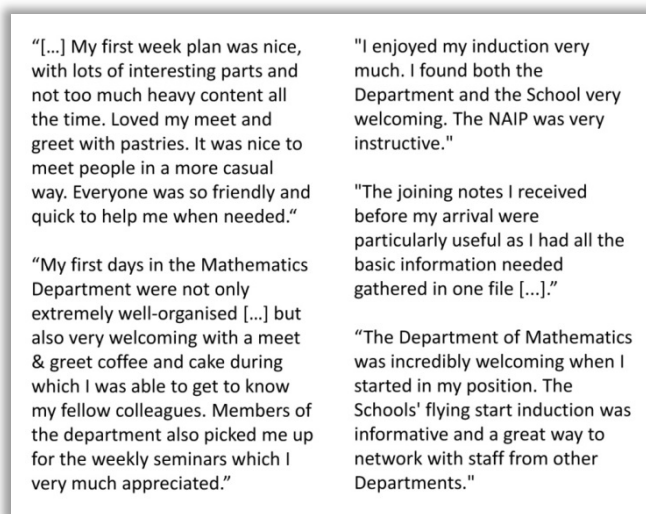
New staff meet with the Head in their first week. An informal 'meet & greet' lunch is held to which all staff are invited.

Adjustments: During their first two years, new faculty have a reduced teaching load, and fewer student mentees than a standard allocation. Their admin tasks are carefully monitored and start with roles requiring lower familiarisation with School processes and less time commitment.

Induction for Hourly Paid teachers: Part-time teaching staff have their own School induction programme. This includes training for teaching quantitative subject and EDI matters. In the Department they also meet the departmental Class Teaching Coordinators, the lecturers of the course(s) they will be teaching, and PS Staff. We offer Guest Teachers a faculty mentor (from a pool) to provide advice regarding training and career development. They are paid for attending induction activities.

Feedback

We currently do not collect formal feedback on induction at Department level, as it would be obvious who the feedback was from. We check-in regularly with new starters and ask them informally and get good feedback, but they are unlikely to be negative when they're trying to make a good impression!



Picture: Informal staff feedback on inductions

We will add a question to our culture survey for those that started in the last three year to reflect on induction. It is not ideal: people may not really remember, and respondents are potentially identifiable. It may however offer some useful insight into our induction processes [AP.5.1.4].

Actions

5.1.4. Add a question on induction to the departmental culture survey which is run every three years, specifically asking anyone who joined in the previous three years to reflect on their satisfaction with induction.

(iii) Promotion

In 2013, LSE changed from a Lecturer – Senior Lecturer – Reader – Professor to an Assistant Professor – Associate Professor – (full) Professor system. Faculty appointed as Assistant Professor need to pass Interim Review (IR, an internal process) within three years and Major Review (MR, which includes promotion to Associate Professor and

involves external references) within eight years of appointment. Since 2013, all appointed faculty in Mathematics passed MR within five years of appointment.

Promotion criteria and ultimate decisions whether or not candidates' application are approved rest with School-wide committees. Membership of the Promotions Committee is drawn from across LSE departments; it should have at least one third members from both genders.

[... *paragraph with detailed information about promotion applications and outcomes removed in public version*]

In the Department, we review all faculty each year for promotion:

- Each December, all Assistant and Associate Professors are asked to submit their updated CVs. In addition, colleagues are offered a meeting with the Head to discuss their expectation regarding promotion.
- The Professors' Committee reviews the CVs and decides which staff to consider further. Those members of staff are invited to develop the required material for an application for promotion.
- Based on these drafts, the Professors Committee in a 2nd meeting decides who to recommend to apply formally.
- There is also a Self-Sponsored Promotion procedure; the criteria are identical to those supported by the Professoriate. No member of the Department has chosen this path since 2013.

The HoD relays comments and suggestions from the Professors' Committee deliberations back to individual staff to help them develop and progress. Continuing support in this area is also given by the mentors of all academic staff.

Future actions

The SAT discussed the process and concluded that the assessment process is transparent, but the criteria have inherent gender bias, particularly in relation to the strict research criteria and less strict criteria for teaching and citizenship.

The School's promotion procedures are in the process of undergoing an Equality Impact Analysis. We will factor this into our annual promotion meetings, taking into account our survey feedback below that some staff do not understand the criteria [AP. 5.1.5].

[... *table of culture survey results on understanding the process and criteria for promotion removed in public version, because of small numbers in certain categories*]

Additionally, it was noted that there are various administrative tasks that are implicit for academics, but not explicitly written into job roles, e.g. writing student references. The SAT discussed the many reports that women take on more of these citizenship duties, which impacts their competitiveness in promotion based on the current criteria. This is discussed further in Organisation and Culture.

Actions

5.1.5. Academic promotion support

- a). Continue to hold an annual meeting, with the Vice-Chair of the Appointments Committee and the Pro-Director Faculty Development, to provide information about the School's promotion criteria and procedures, specifically for members of the Department.
- b). Introduce opportunity for pre-full Professorial faculty to receive (additional) feedback from another member of the Professors' Committee than the Head of Department.

(iv) Department submissions to the Research Excellence Framework (REF)

RAE 2008: All members of the Department were submitted based on an informal internal scoring process of eligible publications.

REF 2014: LSE introduced a more rigorous scoring process of publications (involving internal and external reviewers), and had a strict cut-off point for each member of staff submitted. [... *gender distribution of faculty submitted to REF removed in public version*]

REF 2021: All faculty have been submitted. The average number of publications for women was slightly above that of men. The Department submitted one Impact Case Study provided by [... *gender information removed in public version*]. (Three further cases were submitted from Statistics.)

5.2. Key career transition points: professional and support staff

(i) Induction

New PS Staff can attend the School's 'flying start' induction which runs every month in term time. This one-day session has an introduction from the Chief Operating Officer and sessions covering finance, ethics, organisational learning, IT, sustainability, HR, EDI, and Communications. It is not compulsory; we encourage all new PS Staff to attend, and they did so. It is broad in scope to cover all PS roles in the School and feedback has been that its relevance to new staff is not always clear to them.

In the Department, new PS Staff are welcomed with 'meet & greet' coffee and cakes at the start of a structured first week of meeting other staff in the Department and PS counterparts in the School. The Departmental publicity and social activities for welcoming a new PS member is identical to new academic colleagues. All departmental social meetings make no distinction between PSS and academic staff; everyone is treated and welcomed the same. The DM meets more regularly with new team members, not just in short training/familiarisation sessions, but also in catch-ups, so that there is time for questions, support and feedback. PS Staff are asked to join School networks related to their roles (e.g. communications network, PMA forum) to maximise support for them from others in similar roles.

As above, we will add a question to our culture survey on staff satisfaction with induction.

ii) Promotion

LSE PS Staff cannot apply for promotion as such. The two PS Staff development routes are: regrading of the existing role, or applying for another role. The HERA regrading process is used by the School to consider regrading roles which have changed.

In the reporting period: [... *details of regrading proposals and outcomes removed in public version*].

Once the process and possible outcomes have been discussed with the postholder, and funding for a potential regrading secured, the postholder is asked to supply information on the changed nature of their role and responsibilities to allow their line manager to complete HR documentation. The application is reviewed by a School panel and the outcome discussed with the member of staff. The process is confidential at all stages to the postholder, line manager, HoD and HR.

Where a PS Staff member applies for a position elsewhere in the School and chooses to disclose this, support from their line manager is offered on preparing their application.

5.3. CAREER DEVELOPMENT: ACADEMIC STAFF

(i) Training

After the School survey in 2016, discussion was led by our HR Partner at a Departmental meeting to explore reasons for dissatisfaction with training and ask for suggestions for improvements. The 2019 survey asked a comparable question:

LSE Staff Survey 2019: "Q19. The professional learning and development I have undertaken is helping me to develop my career" 34% positive response permanent staff, 38% positive from hourly paid staff.

This result remains a concern, but we have taken action:

- We worked with the EDEN Centre to explore paid training and teaching workshops for hourly paid staff.
- We encourage new teachers to attend external HE training organised by the Institute of Mathematics and its Applications. There was 100% take up of the opportunity in 2019; the course did not run in 2020.
- We publicise the School's full and varied general training programme ranging from developing management skills, training for new PhD Supervisors, developing KEI skills, writing grant proposals, to 'Balancing Work and Being Mum/Dad/Carer'. The EDEN Centre offers a comprehensive Academic Development Programme (ATLAS).
- We regularly organise Teaching Workshops around specific topics or as 'show & tell' sessions.

Attendance at training courses is monitored by the individual training providers within the School and noted within the Department by means of CDRs, both for academic and PS Staff.

Table 5.3.i.A: Number of training sessions booked

	Class teachers		Academic Staff		PhD students		PSS	
	F	M	F	M	F	M	F	M
2015-16	2		1	20		14	19	
2016-17	12	28	1	26		1	38	
2017-18	9	29	1	9	4	28	6	3
2018-19	8	11	14	6	1	25	13	20

This table shows the number of sessions **booked** by each group.

The culture survey indicates that part-time teaching staff feel less encouraged to make use of opportunities and currently they are not paid for time spent on training. This will be the focus of further action [AP.5.3.1].

We are also looking at implementing more EDI training for the whole Department. [AP.5.3.2].

Q5 I am actively encouraged to make use of development opportunities available to me						
	Faculty, PSS, LSE Fellow	Part-time Teaching Staff	ALL STAFF	Male	Female	Gender not disclosed
Strongly agree	14	1	15	10	2	3
Slightly agree	8	1	9	6	2	1
Neither agree nor disagree	4	3	7	4	1	2
Slightly disagree	2	4	6	3	1	2
Strongly disagree	0	0	0	0	0	0
Don't know / Prefer not to say	2	0	2	0	0	2
TOTAL	30	9	39	23	6	10

Actions

5.3.1. Hourly paid staff support and training

- Request funding for, and if successful publicise, a training budget and policy to pay for the time spent on professional development by hourly paid colleagues.
- Promote to new teaching staff external training courses for new teachers and lecturers and pay for those who wish to attend. Encourage guest teachers to pursue Advance HE Teaching Fellowships and comparable qualifications.
- Continue to provide departmental financial support for the professional development of hourly paid staff who wish to attend external events related to their contract/role with the Department.

5.3.2. EDI training

Work with the EDI team to ensure regular bookable EDI training is available to all staff and where this is not possible, arrange Dept events.

(ii) Appraisal/development review

Career feedback is given to pre-full Professor faculty, Research Officers and LSE Fellows at least once a year. They meet with a senior colleague (usually the HoD) after the submission of a Career Development Review (CDR) form, which focuses on a self-evaluative narrative of their contributions.

The meeting leads to an agreed set of action points, including any training needs. The meetings are compulsory and achieve full uptake, therefore gender balance is the same as department composition.

Full Professors are offered the opportunity of Annual Performance Review; few choose to do so.

Our Culture Survey indicates these reviews are generally well-perceived as a process by permanent staff:

Q3A My Department values the full range of an individual's skills and experience when considering Career Development Reviews						
	Faculty, PSS, LSE Fellow	Part-time Teaching Staff	ALL STAFF	Male	Female	Gender not disclosed
Strongly agree	17	1	18	12	3	3
Slightly agree	5	3	8	6	0	2
Neither agree nor disagree	1	1	2	1	0	1
Slightly disagree	1	1	2	1	1	0
Strongly disagree	0	0	0	0	0	0
Don't know / Prefer not to say	6	3	9	3	2	4
TOTAL	30	9	39	23	6	10

There is no comparable formal review system for hourly paid staff; something we want to change [AP.5.3.3]. We introduced a mentoring system for our guest teachers, although the uptake so far is low. We hope our training actions should improve this as well.

Career development meetings also provide an opportunity to discuss workload, work-life balance and plans for leave (sabbatical or additional research leave following maternity, paternity or shared parental leave).

Actions

5.3.3. Hourly paid staff expectations and career development

- Introduce a meeting between Head or Deputy Head (Teaching) and new guest teacher to discuss their career plans and signpost support and opportunities the Department or LSE can offer. Invite guest teachers annually for follow-ups.
- Lobby the School to improve its policies, procedures and resources for supporting hourly paid colleagues' professional development.
- Promote the career support offered (via Department Mentoring system and internal training) to all non-permanent staff and PhD students at the start of their appointment or studies and annually thereafter.

(iii) Support given to academic staff for career progression

All Assistant Professors are assigned two mentors: one Associate Professor and one Full Professor; Associate Professors are assigned a Professorial mentor. Full Professors can be asked to have a mentor. Information about the roles of the mentors and what these meetings could cover is sent to all staff annually.

[... table of culture survey results on provision on mentoring process removed in public version, because of small numbers in certain categories]

Mentors and mentees are asked to inform the DM that meetings took place, for monitoring purposes, and to update the HoD with short notes on topics covered.

We extended the mentoring scheme to non-permanent academic staff and PhD students and to any full Professor who requests a mentor.

If someone becomes ready for promotion the most experienced Professor in their research area and a Professor with experience on Promotions Committee are asked to advise and support both the candidate for promotion and the HoD in writing the promotion case.

Profile raising

The Department recognises that organising conferences and meetings is an efficient way to raise the profile of faculty within their research community. The Department provides funding for this. Our dedicated PS Research Manager helps with practical arrangements and helps in sharing best practice in obtaining financial support from funding bodies.

As a Department we are keenly aware of the importance of making childcare arrangements for conference participants and our staff going to external events **[AP.5.3.6]** and will create an event organisation checklist to ensure our events are fully inclusive **[AP.5.3.5]**.

Impact: At our planned IPCO conference 2020 (cancelled last-minute in person due to COVID) we ensured contact had been made with local nurseries and that delegates were aware of childcare options.

Actions

5.3.4. Continue monitoring of mentoring meetings. Strengthen communication on the importance of mentoring.

5.3.5. Produce Events checklist to ensure all departmental events are fully inclusive.

5.3.6. Lobby LSE Finance Division to secure clear guidelines for claiming childcare expenses for conferences and events.

If this type of claim is allowed, reserve part of departmental research funds to cover additional childcare costs for members attending seminars outside normal times. (Or where additional travel time requires extra childcare.)

(iv) Support given to students (at any level) for academic career progression

LSE and the Department offer a broad range of support for students' academic career progression.

UG: The Department organises several Personal and Professional Seminar series. For 1st year UG students this happens eight times a year, covering topics such as:

- transition to university;
- study skills;
- careers advice;
- getting to know each other and departmental staff;
- Q&A with students from later years.

For 2nd and 3rd year students, they are less regular. Some of the seminars are aimed at all UG students, including where faculty talk about their background and research.

In 2019/20 we made one of the seminars for all students a “Women in Mathematics” session where alumnae spoke about their experiences. A similar session was organised this year, and is now a fixed element on the schedule. Feedback on these sessions has been positive, and we are considering how we can use alumnae more in advising and supporting current students [AP.5.3.7].

[... picture removed in public version]

Picture: **Women in Mathematics Alumnae session**

UG Summer School: The Department supports the London Mathematical Society Summer School scheme and annually submits student nominations. Students subsequently selected by the LMS have their fee contribution and expenses paid by the Department. Since 2015 4 male and 5 female UG students attended.



Picture: LMS Summer School student attendee Blog article

<https://blogs.lse.ac.uk/math/2018/10/25/london-mathematical-society-summer-school-2018/>

Impact: Two previous LMS summer school attendees have written a blog article about their experience and the benefits of attendance. Whilst attendees are selected primarily on academic achievement, gender balance is taken into account.

PGT: PGT students have their own seminars throughout the year, many of these in a format which combines social and networking aspects (such as meeting companies, careers advice and alumni presentations).

All: For all networking or panel-based career events, whether organised by LSE Careers or by the Department, we aim to have a gender balance, in total and for specific graduate destinations.

PGR: Twice a year, all PhD students and their supervisors are required to write independently a report on activities, progression and plans. The Doctoral Programme Director (DPD) reads these reports and looks out for any imbalances in expectations, support or opportunities. The DPD also has an annual 1-to-1 meeting with each PhD student.

Students are encouraged to attend conferences and undertake research visits. The Department provides an individual annual research student allowance; further funding is possible from a budget managed by the DPD. Students are informed about other funding opportunities, from central LSE funds or outside organisations.

The SAT discussed PGR support extensively and highlighted the importance of a good supervisor, mentorship and sponsorship, and, particularly for women, to build a competitive CV while a PhD student, to help with applying for academic posts once completed. We have therefore developed significant actions in this area **[AP. 5.3.8]**.

Impact: Based on feedback from the 2019 School PhD survey, we changed the format of PhD Progress Reports. Instead of being co-written by the student and the supervisor, we now ask for independently written, separate reports which, we hope, allow for students to express any concerns more freely. Both reports are seen by the DPD only.

In the School's 2019 PhD survey, our Department received high satisfaction, both comparative to other departments and overall. We are not provided with full data or free-text responses.

We keep in mind the Athena Swan Principle: "We commit to removing the obstacles faced by women, in particular, at major points of career development and progression including the transition from PhD into a sustainable academic career". Graduating PhD students who have not yet secured their next step are offered a one-year associate status to work on their career prospects.

Impact: The School outlined plans to introduce a one-year postdoc employment route in the School for those who have just completed their PhD. We took advantage of this flexible scheme. Our first LSE Fellow post-PhD appointment was female.

Actions

5.3.7. Alumni

Look at ways to collaborate more with women alumni to offer current students opportunities for mentoring and information on different career paths.

5.3.8. PhD Students

- a). Develop and deliver additional, regular professional development workshops for Mathematics PhD students, with specific sessions for women PhDs.
- b). Promote more the opportunity of an academic mentor to PhD students, to act as trusted advisers to provide counsel, encouragement and career advice. (This is not the same person as their supervisor.)
- c). Review the existing departmental budget for PhD student development, and remind students their fund can be used specifically for attending conferences, CV-related activity and raising their academic profile. Encourage students and supervisors to discuss this together and plan how best to utilise the fund.
- d). Ensure PhD students are aware of the support mechanisms and networks available to them, including their options if they are unhappy with their supervisor.
- e). Work with LSE EDI and PhD Academy to suggest the need for PhD-specific Safe Contacts across the School. Currently any staff member or student can get informal advice/support and sign-posting from our volunteer Safe Contacts, and while PhD students can also contact them, having PhD-specific safe contacts would be beneficial.
- f). Create a compact checklist for PhD students and supervisors, setting out expectations on contact time and support. This will include number of supervision meetings and how to arrange them and an annual CV meeting throughout the PhD, to ensure continual development and the opportunity to identify gaps before the end of the PhD.

(v) Support offered to those applying for research grant applications

The School and Department together provide all research-active staff with a Personal Research Budget of about £2000 per annum, which can be used for any research-related activity, including childcare costs.

Staff interested in applying for a research grant are advised to discuss this first with their mentor and the Deputy Head (Research). They are also encouraged to contact the LSE Research Division, which has extensive experience and knowledge regarding application procedures.

The Deputy Head (Research) will usually be most involved in preparing any grant application and discussing with the applicant how this fits within their research and career plans. Unsuccessful applicants are invited to discuss the process with the Deputy Head (Research), to understand possible cause(s) of this, and how to proceed.

As a social science institute, LSE does not see obtaining grants as a “must”. Having obtained grants is a minor aspect in promotion applications. Nevertheless, the Department wants to encourage members to apply for grants. We set up our own

Incentive Scheme, which provides additional funds (for smaller grants) and additional teaching credit (for larger grants) just for applying, with additional rewards for positive reviews, independent of the outcome of the application. Our scheme has been recognised as good practice by the School and is now shared among other departments.

In our recent REF2014 submission, five grant successes were highlighted, [... *gender information removed in public version*].

At a recent event, with Professor Diane Maclagan on the impact of Covid on women academics, the idea of 'research respites' was suggested. This would allow women to take 2-5 days of uninterrupted time in a hotel, to concentrate on research. Our staff liked the idea, but potentially without having to go to a hotel to mix the retreat with time with their children. We will explore the possibility further.

[... *picture removed in public version*]

Picture: Screenshot from recent seminar by Professor Diane Maclagan

Actions

5.3.9. Explore the possibility of a 'Research Respite Scheme' for academics with caring responsibilities in the department.

5.4 Development: professional and support staff

(i) Training

The School has a searchable, online training booking system, covering a wide range of areas such as IT Skills and Project Management.

Unfortunately, too often relevant courses are announced, but then only run when there have been enough expressions of interest. This has caused frustration and we have been discussing with training providers how this can be handled better.

Table 5.4.i.A: Number of bookings on LSE training courses by PS Staff

[... *table removed in public version because of small numbers in certain categories*]

Planning training is an integral part of the annual CDRs of all PS Staff. Where specialist training is needed for the individual, external training or shadowing is sought. Feedback from staff indicates while the School sessions are often quite generic, meeting colleagues in similar roles in the School on these courses allows PSS to form a network.

(ii) Appraisal/development review

The School has a Career Development Review (CDR) process which PS Staff follow. This will become mandatory. This is not a performance appraisal process. It is the School's intention that the CDR process will be linked to contribution pay awards (lump sum awards or pay increments), which can confuse career development review with performance appraisal/review.

In our Department, we focus on roles and career development in CDRs to avoid confusing overlaps with performance appraisal. In our small team, with agreement from all members on this, performance appraisal is an ongoing dialogue rather than waiting for an annual opportunity or School process. In recent years CDRs were completed by all PS Staff line managed by the DM. Feedback on the School's required processes is not positive: too generic to cover specific needs, strange questions and format. Despite this CDR meetings are useful additional opportunities to talk.

(iii) Support given to professional and support staff for career progression

The fixed HERA grading of PS Staff means that in general career progression or promotion will require looking outside the Department. See further in Section 5.2.ii above.

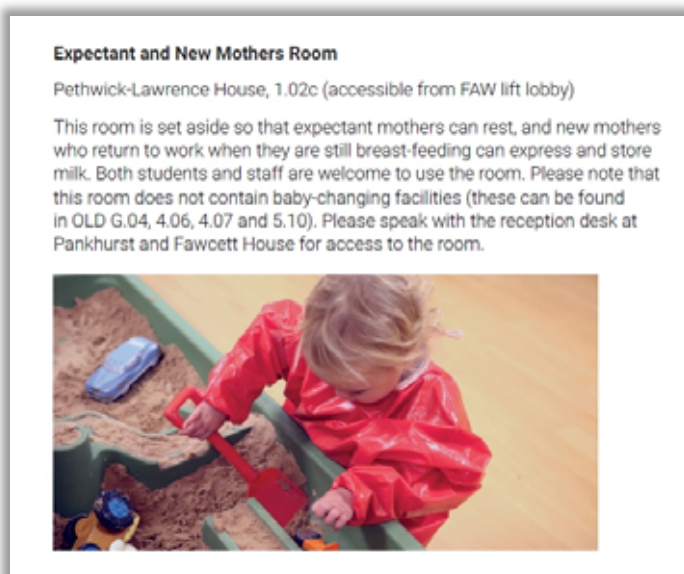
5.5 Flexible working and managing career breaks

Data note: during the reporting period we had six cases of a colleague becoming a new parent; none of them involved adoption.

(i) Cover and support for maternity and adoption leave: before leave

We see parenthood as a welcomed enrichment to the lives of our members. Plans for leave, return to work, and additional research leave are discussed in detail with the HoD as soon as announced. The HR Partner is available for advice regarding entitlements and procedures. In addition, lecturing and committee responsibilities are carefully planned.

Acknowledging that pregnant members of staff may experience fatigue, the School provides a private room for them to take rest breaks. Information about these facilities is made available from pre-arrival at the School.



Picture: Extract from LSE New starter guide

The HoD will discuss with staff their preferences for keeping in touch with departmental activities. In general, staff prefer to stay on to the departmental email lists used for internal communication, but there is no requirement to do so. 'Keep in Touch' days are also discussed, and if possible include a social activity (usually involving cake), so that all members of the department have a chance to congratulate the new parents.

(ii) Cover and support for maternity and adoption leave: during leave

Above the provision as set out by legislation, the School offers enhanced contractual maternity pay: full pay inclusive of statutory maternity pay for the first 18 weeks of maternity leave to female staff with at least 26 weeks of continuous service at the beginning of the 15th week before the expected week of childbirth.

Teaching and administrative obligations of staff on maternity leave are redistributed among the other members of the Department. The Department can apply for modest funding from the School to cover replacement teaching. In recent years this allowed us to create fixed-term guest lecturer positions.

Staff may use their research funds during their leave, so that they can attend conferences or other meetings if they wish to do so.

(iii) Cover and support for maternity and adoption leave: returning to work

Upon returning to work following maternity/adoption leave for a period of 18 weeks or more in total, we encourage staff to take up their entitlement of four months' research leave to help re-establish their research trajectory. The HoD meets with those returning from leave and discusses how they can best be supported.

It helps new parents to manage their family responsibilities that requests for timetabling teaching hours within core hours (10:00—16:00) are respected and treated favourably. All committee meetings and most social events are scheduled during core hours.

The Department automatically accepts (without the need to request) the need for any breaks during the day to express milk. LSE provides a private room for breastfeeding mothers.

The School also has a Parents and Carers' Network, which any member of staff can join. There is also an active and lively Parents and Carers' discussion forum on the School's intranet.

(iv) Maternity return rate

Two members of staff, both Associate Professor at the time, took maternity leave since 2015/16. Both returned after their leave and remained in post since then. No concerns have been expressed by staff in this area.

SILVER APPLICATIONS ONLY

Provide data and comment on the proportion of staff remaining in post six, 12 and 18 months after return from maternity leave.

All staff who took maternity leave remained in post since their return. No concerns have been expressed by staff in this area.

(v) Paternity, shared parental, adoption, and parental leave uptake

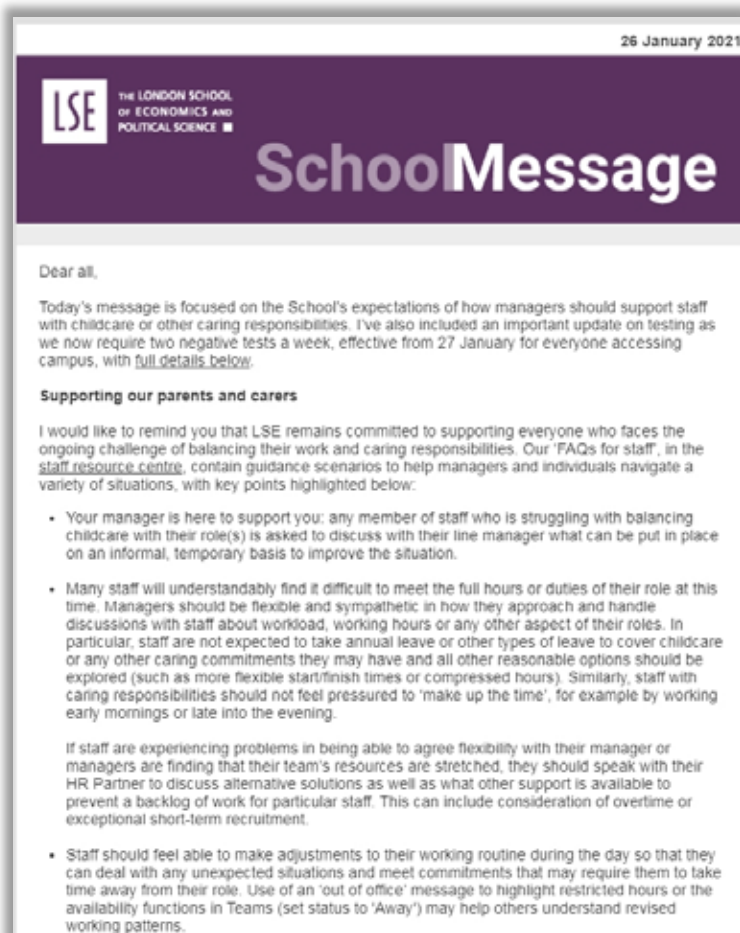
Table 5.5.v: Paternity, shared parental, adoption, and parental leave uptake by Grade
[... table removed in public version because of small numbers overall]

LSE and the Department support uptake of shared parental leave. In addition, we actively encourage eligible staff to use the opportunity to take four months of additional research leave. Career Development and APR meetings provide a formal opportunity for discussion of the timing of such leave.

HR data only shows uptake. We know in the Department that not all men who were entitled to paternity leave applied for it. Informal feedback suggests that this was due to implications on salary and paperwork required. And for academic staff, depending on time of year, temporarily adjusting their working pattern was perceived to be simpler. This is a clear area for improvement in advice and support **[AP. 5.5.1]**.

(vi) Flexible working

We recognise the impact of COVID on parents and carers and support the School's statement advising them not to try to make up working hours during lockdown and while Schools are shut.



Picture: School message on supporting parents and carers

The School has a formal and supportive procedure for PS staff who wish to apply for flexible working hours. [... *details about current non-standard working hours arrangements removed in public version*].

Academic staff have an informal flexible working agreement and may take advantage of the School's research-day-at-home policy. There is no application procedure for academic staff and therefore no data. The School's timetabling policy allows lecturers and class teachers to specify their constraints, and every effort is made to accommodate requests for specific teaching times, for example where there is a childcare commitment.

The Department has accepted requests from academic staff to temporarily adjust their contracts to reduced hours.

[... *table of culture survey results on provision on support for flexible working removed in public version, because of small numbers in certain categories*]

Our Culture Survey indicated two individuals disagreed that a flexible working request would be supported. This must be expectation rather than experience, as all flexible working requests that we are aware of have been supported.

Q8 It is my opinion (whether or not I work part-time or flexibly myself) that staff who work part-time or flexibly in my Department are offered the same career development opportunities as those who work full-time

	Faculty, PSS, LSE Fellow	Part-time Teaching Staff	ALL STAFF	Male	Female	Gender not disclosed
Yes	15	1	16	10	4	2
No	4	5	9	5	2	2
Don't know / Prefer not to say	11	2	13	8	0	5
TOTAL	30	8	38	23	6	9

Our Culture Survey indicated disagreement, particularly from part-time teachers, that those who work part or flexibly time that have the same career development opportunities offered. LSE's stated intention of the purpose of hourly paid contracts is to 'teach a small number of hours on one or two courses' and these are paid at the same rate across all departments. It is difficult to offer a career development route for hourly paid teachers and we plan to better establish and manage expectations for any new starters. (See also Section 5.3.(i).)

(vii) Transition from part-time back to full-time work after career breaks

LSE and the Department have no formal policies regarding transitions from part-time to full-time work after career breaks, but we would follow the general guideline that any such requests should be considered, provided that the normal work of the School is not seriously detrimentally affected and all involved can come to agreed arrangements.

5.6 Organisation and culture

(i) Culture

Staff and PhD students in the Department are a diverse group with many nationalities represented. Currently 44% of all our staff have caring responsibilities. The Department is a very friendly 'open door' place to work. Our kitchen is the hub in which staff regularly have lunch together or meet for coffee/tea and cakes.

[... pictures removed in public version]

Pictures: Our department kitchen

The Department has a faculty member acting as EDI Officer who oversees all aspects of EDI in the Department. This is a recognised role in the department which changes hands every few years: we have had both male and female EDI Officers. We consistently embed EDI considerations into all areas of Departmental business and believe that engagement with and understanding of issues has improved a great deal in recent years.

Impact: Our Culture Survey showed that **none** of our staff or students stated they do not understand the Department's action on gender equality and inclusion. There was, however, a slight decrease in those with no opinion/prefer not to say compared to the previous survey.

We referred in the recruitment section (5.1) to the increased awareness of the some of the action taken to promote gender equality.

Impact: We believe that the action plan and taking and further embedding more positive action will be welcomed in the Department. Our Culture Survey showed an improvement from 15% of staff disagree/strongly disagreeing that they would welcome more positive action to only 6% (2 staff) slightly disagreeing in the most recent survey.

Q27 Personally, I would welcome more positive action to promote gender equality

	ALL STAFF	Research Student	Male	Female	Gender not disclosed
Strongly agree	11	1	6	3	3
Slightly agree	9	3	9	3	0
Neither agree nor disagree	11	2	10	1	2
Slightly disagree	2	0	2	0	0
Strongly disagree	0	1	1	0	0
Don't know / Prefer not to say	2	0	0	0	2
TOTAL	35	7	28	7	7

Since 2018 we have had a PSS post responsible for providing support for EDI activities. The Department supports School-wide initiatives in EDI, such as bullying and harassment awareness. We are encouraging staff involvement in the LSE Male Allies network and Parents and Carers' network and have a department briefing booked for Sept 2021 [AP.5.6.1].

Inclusion of hourly paid staff: Following the last School Survey, where we noticed that hourly paid staff did not feel as included, we took practical actions to improve this such as setting up mailing lists, improving accommodation, including profiles on the website. We have seen an improvement in the Culture Survey from hourly paid staff related to their sense of feeling involved in the department and being kept informed.

Student Equality Survey: In 2019/20 we started to run a revised Student Equality Survey circulated to every student in our Department which contained similar questions to the Staff Survey. Most notable results are students saying yes (8 of 43) to "During my time at LSE, I have experienced a situation(s) where I have felt uncomfortable because of my race or ethnicity". The similar question related to other protected characteristics had 10 of 43 students agreeing. There was also disagreement about enough use of female role models for students (7 of 42 disagree). Plans for increasing women role models are discussed below and we plan to undertake more specific work on race next year. We plan to run the Student Equality Survey every year and take action to get more students to complete it [AP. 5.6.2].

Research events: As a Department we are keenly aware of the importance of making childcare arrangements for conference participants or at other meetings we organise.

Impact: At our planned IPCO conference 2020 (cancelled last-minute in person due to COVID) we ensured contact had been made with local nurseries and that delegates were aware of childcare options.

Actions

5.6.1. Run a briefing session on the parents and carers' network and the LSE male allies scheme and encourage attendance particularly from men.

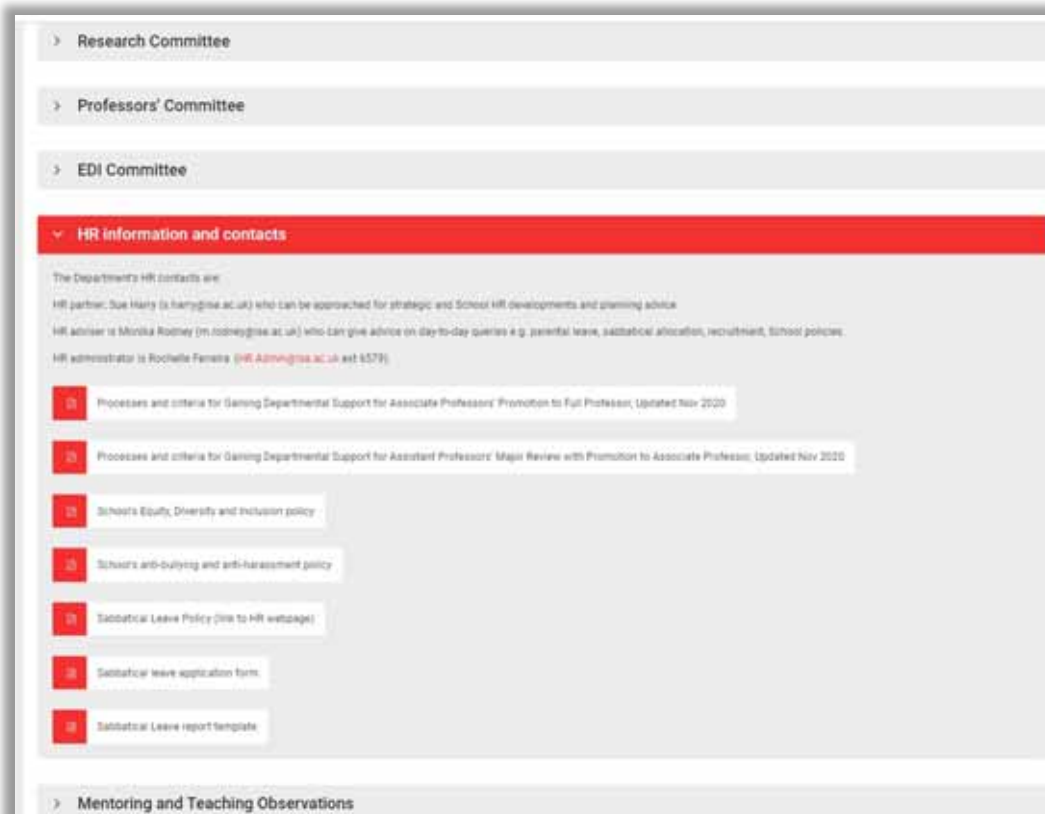
5.6.2. Run the student equality survey annually, discuss findings at EDI Committee and Departmental Meeting

(ii) HR policies

LSE, as a fairly small 'single faculty' institute, has mostly centralised HR policies and ways of informing staff about those. Each Department has an 'HR Partner' assigned to the Department. The HoD and DM regularly meet with the HR Partner to discuss new developments and issues relating to staff in our Department. At those meetings we are also informed of the uptake of policies among staff.

Relevant new information is forwarded via email, in the Departmental Meetings, or via School-wide communications. In particular, it is highlighted regularly that staff can contact the HR Partner, directly and in confidence, to discuss any issues relating to their work in the Department and LSE. We regularly update the departmental intranet pages for staff and hourly paid teachers including: prominent place of HR contacts (name, contact details, HR role as administrator/advisor/partner), clear link to HR policies on EDI, bullying and harassment, etc.

This information will be also be signposted from our new EDI pages, which will include signposts to all of the policies, key contacts and also "Report It, Stop It".



Picture: our staff intranet directs to current sources of HR support and guidelines

Bullying and harassment

LSE has an anonymous reporting system "Report It, Stop It", volunteer 'safe contacts' who provide a confidential and informal signposting service to staff and students, an employee assistance programme, and is currently recruiting for a dedicated sexual harassment advisor. Our job as a Department is to make sure staff and students know about it all and utilise them when necessary, and this will link to the new EDI webpages we are developing [AP. 5.1.1].

Our culture survey indicated four people disagree that unsupportive behaviour is not tolerated in the Department. Furthermore, we have someone who has been made to feel uncomfortable because of their gender (see below).

Consequently, we ran a "Where do you draw the line?" (bullying and harassment) awareness and training session in May 2021 for all permanent staff, with a follow-up booked for guest teachers. The session was a facilitated conversation using higher education-specific case studies and discussing appropriate and inappropriate behaviour. Feedback was very positive, but we need to follow-up on the conversations to ensure they continue to happen and we see improvements in our survey results [AP.5.6.3].

Q20 Unsupportive language and behaviour are not tolerated in my Department (e.g. condescending or intimidating language, ridicule, overly familiar behaviour, jokes/banter that stereotype people or focus on their appearance)

	ALL STAFF	Research Student	Male	Female	Gender not disclosed
Strongly agree	23	3	17	6	3
Slightly agree	8	4	9	1	2
Neither agree nor disagree	1	0	1	0	0
Slightly disagree	4	0	1	0	3
Strongly disagree	0	1	1	0	0
Don't know / Prefer not to say	1	0	0	0	1
TOTAL	37	8	29	7	9

Q29 During my time in this Department, I have experienced a situation(s) where I have felt uncomfortable because of my sex (gender).

	ALL STAFF	Research Student	Male	Female	Gender not disclosed
Yes - on at least one occasion	1	0	0	0	1
No - never	31	7	29	7	2
Prefer not to say	2	0	0	0	2
TOTAL	34	7	29	7	5

At the Annual Monitoring Meeting at which the HoD reports to School Management on the department's activities over the past year, EDI action and compliance is an item on the agenda. Should any instances occur or be reported relating to concerns of equality, dignity at work, bullying, harassment, grievance and disciplinary processes, advice is taken from our HR Partner on how to address them.

Actions

5.6.3. Once full feedback has been collated on both sessions, EDI Committee to discuss ways to continue the conversations from 'Where Do You Draw the Line'.

(iii) Representation of men and women on committees

Table 5.6.iii: Membership of departmental committees, by Gender

		2015/16		2016/17		2017/18		2018/19	
		F	M	F	M	F	M	F	M
Departmental Meeting	%	29%	71%	31%	69%	29%	71%	28%	72%
	HC	10	23	11	24	10	24	10	26
Teaching Committee	%								
	HC								
Research Committee	%								
	HC								
Professors' Committee	%								
	HC								
Athena Swan SAT/ EDI Committee	%	56%	44%	56%	44%	50%	50%	44%	56%
	HC	5	4	5	4	4	4	3.66	4.66

Data note: membership for one term (where applicable) has head count of 0.33

[... details of committees with small numbers in specific categories removed in public version]

Impact: We carried out all previous Action Plan items in this area such as actively monitoring gender balance when allocating roles. Two committees for which the membership is adjustable (Teaching and Research Committee) have greatly improved gender balance.

All Staff attend the Department Meeting. This is the most influential committee; it convenes six times each year.

All Professors attend the Professors' Committee. Teaching, Research and EDI Committee membership is based on roles described in its terms of reference, on availability of staff in a particular year, and to guarantee representation across research areas and academic grades. Details of the Department's governance structure, including committee membership and terms of reference, is on our shared departmental intranet and (in outline) included in pre-arrival information for new staff.

All committees other than the Professors' Committee have both academic and PS Staff members. The Teaching Committee and EDI Committee have student representatives. We monitor the composition of departmental committees annually and this information is presented at the September Department Meeting and shared on the intranet.

The stark gender imbalance of our Professors' Committee is one reason it now carries out the tasks required of it by the School: to discuss annually the career progression of junior academic staff and to recommend who should be put forward for promotion. Until there was a female Professor [... further details removed in public version], a female Professor from a related department joined the meetings.

Impact: We took action to address the gender imbalance of the Professors' Committee in May 2017 (which continued until our first female Professor was in post). We invited a female professor from a related department to contribute to the decisions of who will be considered for promotion.

The Department is keenly aware of potential 'committee overload' as there are currently only four female faculty. The Department is as keen to see female faculty representation at its key committees as they are keen to contribute. Avoiding potential overload of female faculty is an issue managed by the HoD, when the departmental 'Roles and Responsibilities' are allocated annually as some are more time-consuming than others (see Section 5.6.(v) below).

Committee membership is included in general workload considerations; see Section 5.6.(v).

(iv) Participation on influential external committees

It is understood (and recognised in the CDR and APR processes) that membership of committees outside the Department contributes to the 'Service' aspect of the academic role.

Q6 I am encouraged to represent my Department externally and/or internally (e.g. on committees or boards, as chair or speaker at conferences)

	Faculty, PSS, LSE Fellow	Part-time Teaching Staff	ALL STAFF	Male	Female	Prefer not to say / no response
Strongly agree	16	0	16	12	2	2
Slightly agree	7	0	7	5	0	2
Neither agree nor disagree	4	3	7	2	3	2
Slightly disagree	1	1	2	1	0	1
Strongly disagree	1	3	4	2	1	1
Don't know / Prefer not to say	0	1	1	0	0	1
TOTAL	29	8		22	6	9

The School sees membership of its committees (outside the Department) as an important criterion for promotion. Faculty are encouraged to consider vacancies they are informed of by the regular mailings, and to discuss interests with the HoD

- Since 2019/20 we include in the Department's 'Roles and Responsibilities' list the voluntary or *ex officio* contributions of faculty to School committees and networks.
- Noting the results of the survey, we more frequently encourage guest teachers to attend teaching-related workshops and conferences related to their role and fund their attendance when requested.
- PS Staff are encouraged to join School networks and fora related to their roles e.g. communications, EDI advisers, Programme Managers and Administrators.

(v) Workload model

The teaching workload model is a numerical calculation system based on detailed records since 2008. We considered findings and ideas in the Athena Forum *Workload Allocation Report Models* report (2018). Our model was thoroughly reviewed by a Department working group in 2018/19, in particular to discuss the appropriate way to factor in credit for marking, dissertation supervision and alternative forms of assessment. The group comprised six staff from varied academic grades in the department. The outcome was shared at a Department Meeting.

Workload is also discussed with mentors and at faculty CDRs.

Our model takes into account:

- sabbatical and parental leave,
- new starters,
- designing a new course or teaching a course for the first time,
- supervising BS/MSc dissertations,
- major administrative and support roles.

Teaching credit is equal across most modules; some specialised compulsory modules are recognised as more demanding.

Each member of staff's total, and whether it is above or below the 'average' for that year, is accrued over the years. This is so that anyone who takes on a high teaching load as a one-off, then has a future decreased load to compensate.

The spreadsheet itself is never shared as it necessarily contains notes on personal situations, but the manner in which the allocation is calculated is shared with all, and individual considerations are discussed with the member.

Departmental 'Roles and Responsibilities' are not included in the numerical teaching load calculation. This is because they are reviewed annually to ensure someone with a more onerous task during some period is given a lighter responsibility later.

LSE as a whole has feedback from women academics that they undertake a disproportionate amount of pastoral support and citizenship work, which is detrimental to their career development. We have also received this feedback informally across the Department. The SAT discussed this and agreed to create a list of currently unrecognised administrative and pastoral duties. We need to map how much time colleagues spend on each (in a sensitive and confidential way), so that the HoD can step in when staff are either over-burdened or not doing enough [AP.5.6.4].

Actions

5.6.4. Create and share a departmental list of informal administrative duties, including tasks which are not listed specifically on role profiles, but are inherent in being an academic, for example, providing references to students, attending graduation ceremonies. We will consult all staff on what to include in the list, set out departmental

expectations, and each year look at who has undertaken the tasks. Review this process after the first year and make changes as necessary/appropriate.

(vi) Timing of departmental meetings and social gatherings

The Department has core hours of 10:00–16:00. Committee meetings, most seminars and Departmental Meetings take place between these hours. We note that this is an ideal and an assumption, and factor in individual commitments of staff attendees for one-off smaller meetings. Where we notice a School meeting which our staff are asked to attend is convened outside these hours, we comment to the organiser and ask for amendment where possible.

The only exception is some seminars which happen between 16:00–18:00 due to the availability of speakers. One of these is the London Mathematical Finance Seminar Series, which is organised on a rotating basis with six other London universities. It is also aimed at practitioners (both as attendants and as speaker) who are not easily available in our core hours.

The Department also has a policy not to send departmental emails during weekend.

Staff are notified of Department meetings well in advance. We have introduced an online shared departmental calendar.

It can be difficult for part-time teachers to participate in meetings and informal gatherings, because of their irregular hours and the fact that they usually only come to the School on days they are teaching or meeting students. There is no UG teaching scheduled on Wednesdays after 12:00; the Department tries to hold all class teacher meetings, workshops and Women in Mathematics seminars and the Christmas party at this time.

All staff are invited to the Christmas party; a few years ago the timing of this was changed from an evening event to an early afternoon event to allow more staff to attend. The number of attendees has increased significantly since then.

The Department tries to schedule most student social events (such as Welcome Receptions, End-of-Year parties) at lunchtime rather than late afternoon/evening.

Impact: Our Culture Survey shows the improved awareness and impact of these measures in that no respondents disagreed with the statements relating to them. Since the 2016 survey strength of agreement improved from 58% to 63% choosing “Always” and no-one now says “sometimes”.

Q9 Meetings in my Department are completed in core hours (10am to 4pm) to enable those with caring responsibilities to attend

	ALL STAFF	Male	Female	Gender not disclosed
Always	24	12	5	7
Mostly	11	8	1	2
Sometimes	0	0	0	0
Rarely	0	0	0	0
Never	0	0	0	0
Don't know / Prefer not to say	3	3	0	0
TOTAL	38	23	6	9

Q22 Work or study related social activities in my Department such as parties, team building or networking events, are welcoming to everyone (e.g. venues, activities and times are appropriate to all).

	ALL STAFF	Research Student	Male	Female	Gender not disclosed
Strongly agree	23	5	20	4	4
Slightly agree	11	2	7	3	3
Neither agree nor disagree	3	1	2	0	2
Slightly disagree	0	0	0	0	0
Strongly disagree	0	0	0	0	0
Don't know / Prefer not to say	0	0	0	0	0
TOTAL	37	8	29	7	9

Action

5.6.5. Keep under active review the timing of all social events for all groups in the Department.

(vii) Visibility of role models

Our survey reflects the efforts we have made in recent years to increase the visibility of women in mathematics and we are proud of this.

Q32 My Department uses a diversity of people as visible role models (e.g. in staff inductions, as speakers in seminar programmes, at recruitment events)

	ALL STAFF	Research Student	Male	Female	Gender not disclosed
Strongly agree	16	1	12	2	3
Slightly agree	12	5	12	3	2
Neither agree nor disagree	3	1	2	2	0
Slightly disagree	0	0	0	0	0
Strongly disagree	0	0	0	0	0
Don't know / Prefer not to say	5	0	3	0	2
TOTAL	36	7	29	7	7

Impact: The impact of awareness of need for action in this area is that since 2015 we have doubled the percentage of female speakers in the seminars over which we have direct control of the programme (12% to 24%).

Table 5.6.vii: Number of speakers in departmental seminar series and regular meetings, by Gender

Year	RSFM			DMGT			PhD			CC			ALL			ALL %		(LMFS)		
	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	F	M	Total
2015	1	12	13	4	25	29	2	18	20	1	5	6	8	60	68	12%	88%	2	26	28
2016	4	12	16	2	20	22	2	7	9	2	4	6	10	43	53	19%	81%	-	-	-
2017	3	15	18	9	32	41	1	17	18	2	4	6	15	68	83	18%	82%	2	20	22
2018	3	16	19	6	30	36	0	14	14	4	2	6	13	62	75	17%	83%	4	18	22
2019	3	14	17	7	25	32	2	11	13	4	2	6	16	52	68	24%	76%	2	20	22

RSFM	Joint Risk & Stochastic and Financial Mathematics Seminar (jointly with the Department of Statistics)
DMGT	Discrete Mathematics and Game Theory Seminar
PhD	PhD Seminar (includes presentations from both Research Students and external speakers)
CC	One-Day Combinatorics Colloquium (one-day national meeting in May)
LMFS	London Mathematical Finance Seminar Series (organised with other London universities; limited control over programme)

However, we want to do more. We are a numerically male-dominated department and consequently we need to promote women as much as we can to try and balance out our culture and representation. This is important for everyone – every staff member and student needs to associate women with mathematicians.

Event organisers know now to not organise events with no women, but we want to be more ambitious and ensure 35% of all guest speakers are women, and link this to our inclusive events checklist **[AP.5.3.5, 5.6.6]**.

Event presenters: Recent information events for UG students, such as Open days, Offer Holders day and Induction day have been, in general, presented by the HoD or Departmental Tutor (all male at the time of application submission; from 2021/22 we will have a female Departmental Tutor). The more informal parts of the events are well attended by male and female staff (and, for Open days, by current female and male students). From 2017 we secured support from the larger pool of female part-time teachers to help with internal events (such as working at the Personal and Professional Development seminars).

[... picture removed in public version]

Picture: Offer holder day 2018

Social media: We have an active social media presence (@LSEMaths on Twitter, Research Blog, Student Hub) and are careful to ensure gender balance and gender

representation within the posts and to celebrate the achievements of our female staff and students.



Picture: Research Blog profile



Picture: Twitter success story Picture: Twitter success story



Picture: Twitter Open Day publicity



Picture: Twitter Prize winners publicity

Use of images: We ensure (through now having a PS Staff post responsible for communications) that all departmental publications, information and website contain profiles and images that will show the Department as an inviting place to work and study for everybody.

Our website was redesigned in 2018, keeping this aim of demonstrating equity and inclusion in mind. Where there was likelihood of too many images of individual male faculty/teachers an alternative was sought (e.g. graphic, group photo). There is a balanced use of M-F and ethnicities in images on posters, pamphlets and other publicity material we use for student recruitment and marketing. Profiles of part-time members of staff have been added to the redesigned website. All staff now have a profile page.

While our online imagery has been reviewed, we have not formally reviewed the look and feel of our physical environment. We will conduct an imagery audit and look at

ways to make it feel inclusive to women in particular [AP. 5.6.7].

Actions

5.6.6. Monitor and improve the gender representation of guest speakers, and ensure colleagues are aware of our policies on speakers, chairs, and running inclusive events.

5.6.7. Undertake an imagery audit of the physical environment in the Department.

(viii) Outreach activities

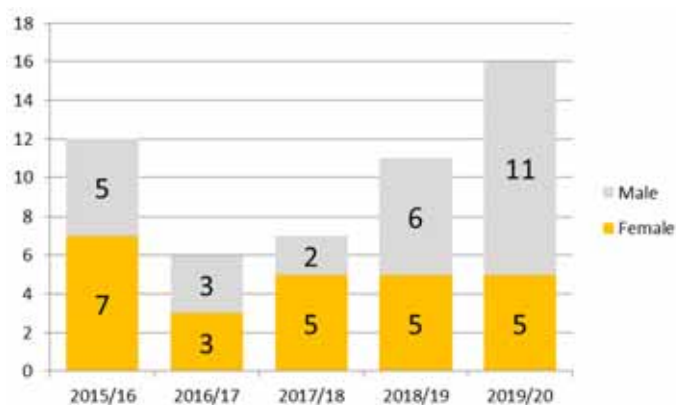
The School has a central Widening Participation (WP) Team whose programme of work we support and contribute to. We are also mindful of not overburdening our women academics, and have contracted someone to lead on this work.

We want to join existing activities to engage with pre-university students and their parents to boost and maintain their enthusiasm with mathematics [AP. 4.1.2.]. The prevalence of online meetings can potentially benefit our outreach activities and offer more flexibility in timings and format [AP. 5.6.8].

In addition to staff involvement in WP, every year a number of students work in either a paid or voluntary capacity for the School's WP Team. They undertake one of three roles: mentor, tutor, or student ambassador [AP. 5.6.8].

Impact: We enthusiastically promote all opportunities via the Student Hub. Data for 2019/20 indicates our highest recent number of students involved in WP activities for the School.

Table 5.6.viii: Number of students working for the School's WP activities by Gender



Actions

4.1.2. Join existing activities to engage with pre-university students and their parents to boost and maintain their enthusiasm with mathematics.

5.6.8. Encourage all staff and PGR students to participate, and report to the Department, on outreach and WP activities.

Offer support to school WP outreach activities and make use of improved online

possibilities to create online events aimed at female pre-university students and their parents.

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SILVER APPLICATIONS ONLY

6 CASE STUDIES: IMPACT ON INDIVIDUALS

Case STUDY 1 (includes SAT MEMBER)

[... *removed in public version*]

CASE STUDY 2

[... *removed in public version*]

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7 FURTHER INFORMATION

[None]

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8 ACTION PLAN

The previous action plan (2016 submission) which we have been working to is included for reference.

Asterisks indicate level of priority (**: high priority; *: medium priority)

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
GENERAL ACTIONS							
1**	EDI committee	Convert SAT into departmental EDI Committee.	SAT discussions	LT 2016/17	Permanent change	Departmental EDI Officer; Departmental Manager	Improved results next Culture Survey; Progress on all other action points
2**	EDI committee	Include review of progress against Action Plan as standing item on EDI Committee agenda.	SAT discussions	LT 2016/17	Ongoing	Departmental EDI Officer	Improved results next Culture Survey; Progress on all other action points
STUDENTS: Recruitment and admissions							
3*	Promotional material (all students)	Ensure better balance of student profiles on School admissions website to encourage female and BME applicants.	Lower percentage female applicants	Started Summer 2016	Review annually	UG, MSc and Research Programme Managers	Increased gender balance on School admissions website
4*	Promotional material (all students)	Review student promotional material on departmental website and create student profile information including female profiles.	Lower percentage female applicants	Summer 2016	Review annually	UG, MSc and Research Programme managers	Departmental website encourages all groups to apply; gender balance of student profiles
5*	PhD admissions	Review all steps in the student recruitment and application process for bias, and where necessary correct.	Data on informal and formal applications	LT 2016/17	Review annually	Doctoral Programme Director; Research, Communications and Events Manager	Increased percentage of female PhD students

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
6	PhD admissions	Invite all female applicants who meet the essential criteria for a Skype discussion. Those discussions should not be tests of capacities, but concentrate on the personal aspects of doing a PhD in the Department.	Data on informal PhD applications	MT 2017/18	Permanent change	Doctoral Programme Director; Research, Communications and Events Manager	All suitable female PhD applicants are offered Skype meeting; increased number of female PhD applicants
7	PhD admissions	Lobby the School to increase the number of guaranteed funded PhD positions for each Department. If successful, target advertising for funded places to attract more female applicants.	Low number of female PhD students	Started 2013/14	Until successful	Head of Department; Doctoral Programme Director	Increased number of PhD studentships for Department; targeted advertising of those studentships
8	PhD admissions	Investigate feasibility (practical and legal) of using guaranteed PhD studentship(s) to introduce a specific studentship, e.g. named after an inspiring female mathematician, to be awarded annually to an outstanding female candidate.	Low number of female PhD students	Summer 2016/17	If feasible, start for entry 2018/19	Doctoral Programme Director; Head of Department	Department has specific studentship aimed at female applicants (if feasible)
9	Widening participation	Appoint a member of academic staff responsible for outreach and widening participation who will also work closely with the UG admissions team.	Lower number of female and BME applicants	Appointed August 2016	Review progress annually	Head of Department	Increased activities in Department in WP and outreach

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
10	Widening participation	Explore possibilities for offering annual Year 11/12 Mathematics 'Taster Days' with particular focus on Women in Mathematics.	SAT discussions about engaging students at an earlier age.	LT 2016/17	Annual event	Assistant Professorial Lecturer with responsibility for WP	Department offers Taster Days
11	Widening participation	Liaise with the Department of Economics to raise awareness of the low number of female applicants and to take joint and coordinated action in this area.	Admissions data	LT 2016/17	Action starting 2017/18	Deputy Head (Teaching); Assistant Professorial Lecturer with responsibility for WP	Joint action with Economics, intended to attract more female applicants for UG degrees
12*	Widening participation	Set up a WP Working Group in the Department. This is to raise awareness of the School's central WP team plans, and to increase departmental interest and involvement.	SAT discussions about engaging students at an earlier age.	LT 2016/17	Permanent group	Assistant Professorial Lecturer with responsibility for WP	Increased involvement of staff in WP
13	Widening participation	Encourage all staff and PGR students to participate, and report to the Department, on outreach and WP activities.	SAT discussions about engaging students at an earlier age.	LT 2016/17	Permanent change	Assistant Professorial Lecturer with responsibility for WP; UG, MSc and Research Programme Managers	Increased involvement of staff in WP

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
STUDENTS: Development							
14	Support for student career progression	Offer, in cooperation with LSE Careers Services, career events aimed at all degree levels that showcase the whole spectrum of possible careers and options for further study.	SAT discussion and Culture Survey results	LT 2016/17	Permanent change	UG, MSc and Research Programme managers	Student attendance at seminars
15	Role Models	Ensure that presenters and panel members at career events have a gender balance.	SAT discussion	LT 2016/17	Review annually	UG, MSc and Research Programme managers	Gender balance of presenters
16	Mentoring	Appoint academic mentors to PhD students, who act as trusted advisers to provide counsel, encouragement and career advice.	Culture Survey results	MT 2016/17	Permanent change	Research, Communications and Events Manager	Academic mentor appointed to all students
17	Personal and Professional Development	Make a funding request to the School for Department to develop and deliver further regular professional development workshops for PhD students.	PhD Staff-Student Liaison Committee	Started May 2016	Termly workshop, subject to funding	Doctoral Programme Director; Research, Communications and Events Manager	Establishment of workshops; PhD students' attendance at workshops
18*	Induction	Review pre-arrival information for students to ensure the picture of the Department presented to offer-holders is one of a welcoming and supportive environment for all students.	Admissions data	ST 2016/17	Review annually	UG, MSc and Research Programme managers	Pre-arrival information reviewed; Relevant changes made

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
STUDENT: Attainment							
19*	Attainment	Review examination statistics and individual course results by gender annually.	Review of results by course and gender 2009–2016	Started Summer 2016	Review annually	Deputy Head (Teaching)	Any differences in attainment identified and investigated; reduced differences in attainment
20	Attainment	Liaise with the Department of Economics to review attainment by module by gender for their courses on the joint programmes.	UG classification results	ST 2016/17	LT 2017/18	Deputy Head (Teaching)	If differences in attainment identified, activities planned to reduce those
21*	Attainment	Run student focus groups, including female-only groups, to explore the reasons for any difference in attainment.	Review of exam results at module level	First groups in MT 2016/17	Termly, subject to funding.	Departmental Manager (with TLC)	Changes in teaching and assessment aimed at reducing differences in attainment
22	Teaching methods	Increase diversity in methods of teaching and assessment.	Review of exam results at module level	First Teaching workshop November 2016	Implement from 2017/18 onwards	Deputy Head (Teaching)	Reduced differences in attainment
23*	Teaching methods	Use the termly 'Women in Mathematics' Network and Seminar meetings (AP28) to discuss any aspects of our teaching that affect different groups of students differently.	Review of exam results at module level	LT 2016/17	Implement from 2017/18 onwards	Deputy Head (Teaching)	Changes in teaching aimed at reducing differences in attainment

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
STAFF AND STUDENTS: Communications and events							
24**	Publications	Ensure all departmental publications, information and website contain profiles and images that will show the Department as an inviting place to work and study for everybody.	Review of publications	Summer 2016	Relaunch in 2016/17, review annually in the summer.	Research, Communications and Events Manager	All publications and website reviewed and, where necessary, changed to be attractive for all groups
25	Website	Provide profiles of a larger variety of staff and students, including part-time (usually teaching-only) staff.	Review of profiles on website	October 2016	Update each September	Department Manager	Increased variety of staff and student profiles on website
26	Website	Restructure the style and content of the website to reflect inclusivity, diversity and the joy of doing mathematics.	Review of website	MT 2016/17	ST2016/17	Department Manager and Research, Communications and Events Manager	Increased attendance at departmental activities
27*	Inclusion	Extend communications to involve all staff and PhD students in any communication regarding new policies, departmental activities, etc.	Culture Survey results	MT 2016/17	Permanent change	Department Manager and Research, Communications and Events Manager	General departmental communications go by default to all staff and PhD students
28**	Personal and Professional Development	Hold termly 'Women In Mathematics' Network and Seminar meetings for all members of the department (staff and students).	SAT discussions	MT 2016/17	Termly meeting, subject to funding.	Deputy Head (Teaching)	Attendance of staff and students at the meetings

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
29	Personal and Professional Development	Secure funding to pay for any staff who wish to attend the annual LMS Women in Mathematics day and ensure no key departmental meetings are scheduled to clash with this event. Encourage attendance from staff, PhD, MSc and 3 rd year UGs.	SAT discussions	LT 2016/17	Annual, subject to funding	Departmental Manager	Increased attendance of staff and students at LMS Women in Mathematics day
ACADEMIC STAFF: Recruitment							
30**	Advertising	Ensure that all recruitment material (advertisement, job description, etc.) actively encourages a diverse pool of applicants.	Low number of female applicants	Next recruitment round	Review each recruitment round	Departmental Manager	Increased number of female applicants
31**	Advertising	Explicitly mention in the advertisement the possibility for all positions to be available part-time or with other flexible arrangements.	Low number of female applicants	Next recruitment round	Review each recruitment round	Departmental Manager	Increased number of female applicants
32	Advertising	Create a short information sheet about the recent Culture Survey results to go with application information for recruitment.	Low number of female applicants	Next recruitment round	Review each recruitment round	Departmental EDI Officer	Culture Survey information is available at every recruitment round
33	Advertising	Improve references to EDI activities and procedures in recruitment material and give them a more prominent position.	Low number of female applicants	Next recruitment round	Review each recruitment round	Departmental EDI Officer	EDI material has prominent position at every recruitment round

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
34	Advertising	Investigate possibilities of using direct approaches to increase the number of female applicants, for instance by targeting females explicitly and by using existing contacts to get details of potential female applicants.	Low number of female applicants	Next recruitment round	Review at next application deadline	Head of Department	Increased number of female applicants
35*	Shortlisting	Introduce an aspirational target that long-lists for academic positions should have at least 35% applicants from both genders, and short-lists to include at least two candidates from both genders.	Low number of female appointments	Next recruitment round	Review each recruitment round	Head of Department	Gender balance in long and short-lists achieves targets
ACADEMIC STAFF: Training and development							
36*	Induction	Ensure that information about EDI and related activities (including arrangements for parental leave, childcare, flexible working, staff networks, etc.) is included in the pre-arrival information.	Review of current pre-arrival information	Next new starter	Permanent change	Departmental Manager	Increased awareness of those activities in future Culture Surveys
37*	Mentoring	Offer personal career advice (via a Mentoring system or otherwise) to all non-permanent staff interested in this.	Staff Culture Survey and discussions in SAT	Implemented September 2016	Review annually in September	Deputy Head (Teaching)	Uptake of mentoring offer by all non-permanent staff interested in it
38	Mentoring	Improve mentoring training/guidelines for faculty.	Culture Survey results	LT 2016/17	LT 2016/17	Head of Department	Improvements of this aspect in future Culture Surveys

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
39	Training	Make sure all staff are aware of training and other career development opportunities offered by TLC, HR and other LSE divisions.	LSE Staff Survey results	Started MT 2016/17	Permanent change	Departmental Manager	Increased participation in training sessions
40	Training	Liaise with training providers to ensure required or recommended training is customised for mathematicians and of a suitable duration to be accommodated into working diaries.	LSE Staff Survey results	LT 2016/17	Review improvements annually	Departmental Manager	Increased participation in training sessions
41**	Unconscious Bias Training	Ensure all staff involved who have not yet attended Unconscious Bias training do this in 2016/17.	Culture Survey results	LT 2016/17	July 2017	Departmental Manager	All academic staff having attended unconscious bias sessions.
42	Unconscious Bias Training	All future new staff to attend UB training.	School requirement	MT 2016/17	Permanent	Departmental Manager	All new staff attending UB sessions
43	Unconscious Bias Training	Part-time teaching staff to attend UB training.	SAT discussion	October 2016	Permanent	Departmental Manager	All new staff attending UB sessions
44	Promotion and review	Organise an annual meeting, with the Vice-Chair of the Appointments Committee and the Pro-Director Faculty Development, to provide information about the School's promotion criteria and procedures, specifically for members of the Department.	Culture Survey results	MT 2016/17	Permanent	Head of Department	All staff for whom this is relevant to attend the meeting

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
45*	Promotion and review	Provide departmental guidelines on intranet detailing criteria and process for promotion.	Culture Survey results	Uploaded June 2016	Review annually at ST Professors' Meeting	Departmental Manager; Head of Department	Guidelines posted and kept up-to-date
46	Promotion and review	Offer the opportunity of an annual Career Development Meeting to all staff – not just those 'due'.	Culture Survey results	LT 2016/17	Permanent change	Head of Department	Uptake of the CDR meeting offer by all staff interested in it
47	Promotion and review	Investigate strengths and weaknesses of our ACDR procedures.	Culture Survey results	LT 2016/17	Implement 2017/18	Head of Department	Improvements of this aspect in future Culture Surveys for the relevant staff
48	Promotion and review	Consult with HR and Pro-director Faculty Development how to improve ACDR procedures.	Culture Survey results	LT 2016/17	Implement 2017/18	Head of Department	Improvements of this aspect in future Culture Surveys for the relevant staff
49	Leavers	Request leaving non-permanent staff to complete exit questionnaires regarding their reasons for leaving, their next steps, and how they experienced support (if any) from the Department.	SAT discussions	ST 2016/17	Permanent change	Departmental Manager	All leaving staff to be asked to complete exit questionnaires; Majority of staff complete it
Departmental culture							
50*	Awareness	Include EDI /Athena SWAN as standing item on Departmental Meeting agenda.	Culture Survey results	Started 2004 (EDI); started 2015 (Athena SWAN)	Ongoing	Departmental Manager	EDI discussed (and discussion minuted) at every Departmental Meeting

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
51*	Awareness	Re-run the Culture Survey in two years time to measure changes in opinion.	SAT recommendations	LT 2017/18	Repeat regularly	Departmental EDI Officer	Culture Survey administered and results analysed
52*	HR policies	Update the departmental intranet staff pages, including: prominent place of HR Partner (name, contact details, role), clear link to HR policies on EDI, bullying and harassment, etc.	Culture Survey results	Updated MT 2016/17	Permanent action: update regularly	Departmental Manager	Relevant webpages updated and linked to
53*	Communication	Create mailing list for part-time teaching staff to improve communication.	Based on feedback from the Culture Survey	Implemented Sep 2016	Update whenever team composition	Departmental Manager	Mailing list created, used, and kept up-to-date
54**	Committee Representation	Monitor the composition of departmental committees. Include review of committee gender balance as a standing item at ST Committee of Professors' meeting when reviewing roles and responsibilities.	SAT discussions	Implemented ST 2015/16	Review annually in ST	Head of Department	ST Professors' Meeting reviews composition of committees
55	Committee Representation	Inform Department of gender composition of committees (usually at the first Departmental Meeting of the Academic Year) when reviewing new year's roles and responsibilities.	SAT discussions	Implemented MT 2016/17	Repeat annually in September	EDI Officer	Departmental Meeting discusses and approves committee composition

AP#	Area	Planned action / objective	Rationale	Timeframe Start date	Timeframe End date	Person responsible	Success criteria and outcome
56	Committee Representation	Investigate the possibility of involving female professors from related departments in the promotion and review discussions of the Professors' Committee.	SAT discussions	Discuss LT 2017/18	Implement ST 2017/18	Head of Department	Female Professor's involvement in promotion and review decisions
57**	Workload model	Include one male and one female member of faculty devoting time to Athena SWAN activities in departmental duties allocation.	SAT discussions	Implemented June 2016	Updated annually in ST	Head of Department	Athena SWAN/EDI recognised in departmental roles and responsibilities allocation
58*	Timing of meetings and social gatherings	Keep under active review the timing of all social events for all groups in the Department.	SAT review of event times	Implemented 2015/16	Permanent change	EDI Officer	Participation of all student groups in social events
59*	Visibility of role models	Review and report on gender and ethnicity composition of line up of speakers at events, lectures and seminars.	SAT review of gender balance at these activities	ST 2015/16	Review termly	Deputy Head (Research) and event/seminar organisers	Improved gender balance at events, lectures and seminars
60*	Visibility of role models	Introduce a target for all seminar series under our control to have at least 25% female speakers, with the aim to increase this further in the medium term.	SAT review of gender balance at these activities	LT 2016/17	Review annually	Deputy Head (Research) and event/seminar organisers	Improved gender balance (at least 25% females) at all seminar series
61*	PSS	Involve professional services staff in EDI development and activities in the Department.	SAT discussions	LT 2016/17	Permanent change	Departmental Manager	Increased awareness of EDI activities, as visible in next Culture Survey

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62	PSS	Include consideration of issues affecting PSS staff at SAT/EDI committees.	SAT discussions	LT 2016/17	Permanent change	Departmental EDI Officer	Increased awareness of EDI activities, as visible in next Culture Survey
63	PSS	Follow all recruitment action points for Academic Staff when recruiting professional services staff.	SAT discussions	Next recruitment round	Review at next application deadline	Departmental Manager	Improved gender balance PSS

[Action plan removed from public version]