

Please note: To protect people's privacy due to small numbers, a number of tables and figures have been redacted from this application.

## Athena Swan Silver application form for Departments

### Applicant information

Name of institution	University of Oxford
Name of Department	Department of Statistics
Date of current application	31 July 2023
Level of previous award	Bronze
Date of previous award	30 November 2017
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An assessment of the Department's gender equality context	3097 + 363 for COVID-19
Future action plan*	
Appendix 1: Culture survey data*	
Appendix 2: Data tables*	
Appendix 3: Glossary*	
Overall word count	7914 + 363 for COVID-19

\*These sections and appendices should not contain any commentary contributing to the overall word limit

Overall word limit: 8000 words

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## Section 1: An overview of the department and its approach to gender equality

### 1.1. Letter of endorsement from the head of the department

Head of Department of Statistics  
**Professor Christl Donnelly**

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DEPARTMENT OF  
**STATISTICS**

30 July 2023

Dear Athena Swan Panel,

As the third successive female Head of Department, I am particularly pleased to champion our Athena Swan Silver application. As we strive to deliver world-leading research and education, we are working to provide a diverse, inclusive, and supportive environment in which all members of the Department (faculty, staff, and students) can thrive. We have held a Bronze award since 2014 and are now taking the next step by applying for a Silver award.

Since joining Oxford in 2018, I have been impressed by the Department's commitment to gender equality with a collective growth mindset and the co-development and delivery of best practice on several fronts. In 2019 I began to chair the Good Practice Steering Group, now given full Departmental committee status as the Equality, Diversity, and Inclusion Committee (EDIC). As Head of Department, I remain on the EDIC and am part of the Self-Assessment Team (SAT).

In 2021-22 the Department spent £40k on EDI-related activities, and our EDIC is using the action plan to deliver structural and cultural changes.

We are very proud of the progress we have made to increase representation on our taught courses. Our undergraduate student body has grown from 85 to 121, with 42% women (compared to 31% in 2017). We have also acted to restore better gender balance on our MSc following an observed drop after changing the course title and content in 2016, and are pleased that this is now up to 42% women. We have built a thriving undergraduate research internship programme, including a successful Departmental case for positive action to ensure that at least 50% of places are offered to women. We see this as an important contribution to the pipeline of students into graduate research, where currently 27% of our students are women.

Our survey feedback has repeatedly affirmed that our Department is a welcoming place to be: In the 2022 postgraduate research student survey, all respondents said they would recommend Oxford to others for a Statistics postgraduate degree, and 90% said that they are treated equally regardless of gender or ethnicity. Similarly, 83% of staff said they would recommend working at the Department.

We recognise there is still much to do, and this is reflected in the seven objectives of our action plan. While at a senior level our academic staff are gender-balanced, our gender balance at associate professor and postdoctoral levels has not improved in line with our ambitions. These challenges have been compounded by the impacts of Brexit on recruitment and research funding. Furthermore, our relatively small size and limited turnover in academic staff mean that effecting such demographic

changes requires persistence, but also patience. Alongside this, workload and work-related stress has been compounded by the challenges of the COVID-19 pandemic, and now requires urgent attention.

It was heartening to see our Departmental community pull together during the challenging circumstances brought about by COVID-19: putting health and mental wellbeing at the forefront, supporting each other in learning new technology and approaches to teaching and research, and being steadfast in our care for each other. A crisis shows a group's true priorities, and I believe we demonstrated that ours lie fully in the wellbeing of our people.

I enthusiastically endorse the initiatives and encouraging results thus far while recognising there are still areas we can improve on. I am delighted to forward this submission and to confirm that the information presented in this application (including qualitative and quantitative data) is an honest, accurate and true reflection of the institution.

Yours sincerely,



Professor Christl Donnelly

Head of Department

## 1.2. Description of the department

The University of Oxford's Department of Statistics is one of nine academic Departments within the Mathematical, Physical and Life Sciences (MPLS) Division (*Figure 1*). We are one of the smaller Departments within the Division, employing 68 staff, 23 of whom identify as women (34%), and situated near the centre of the Oxford (*Figure 2*) close to the Mathematical Institute. In September 2022, we welcomed our third successive female Head of Department, who previously chaired our Department's Equality, Diversity and Inclusion Committee (EDIC).

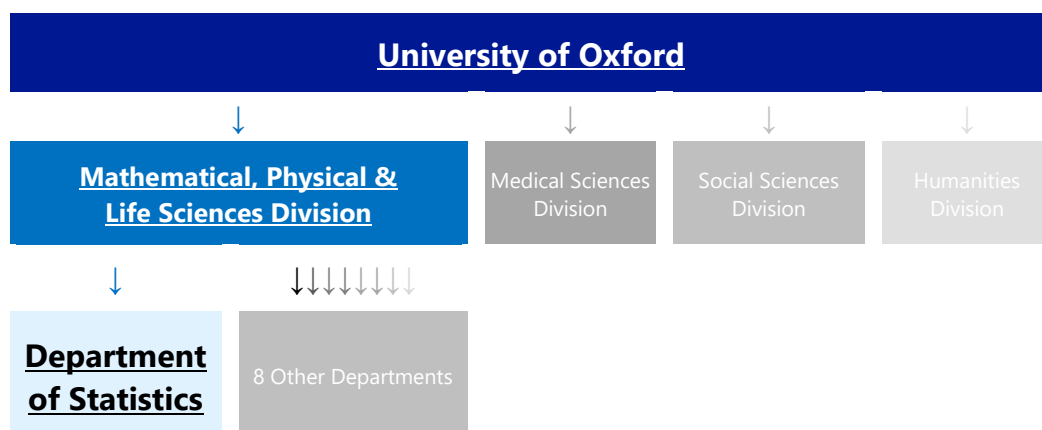


Figure 1: Where the Department of Statistics sits within the University of Oxford.

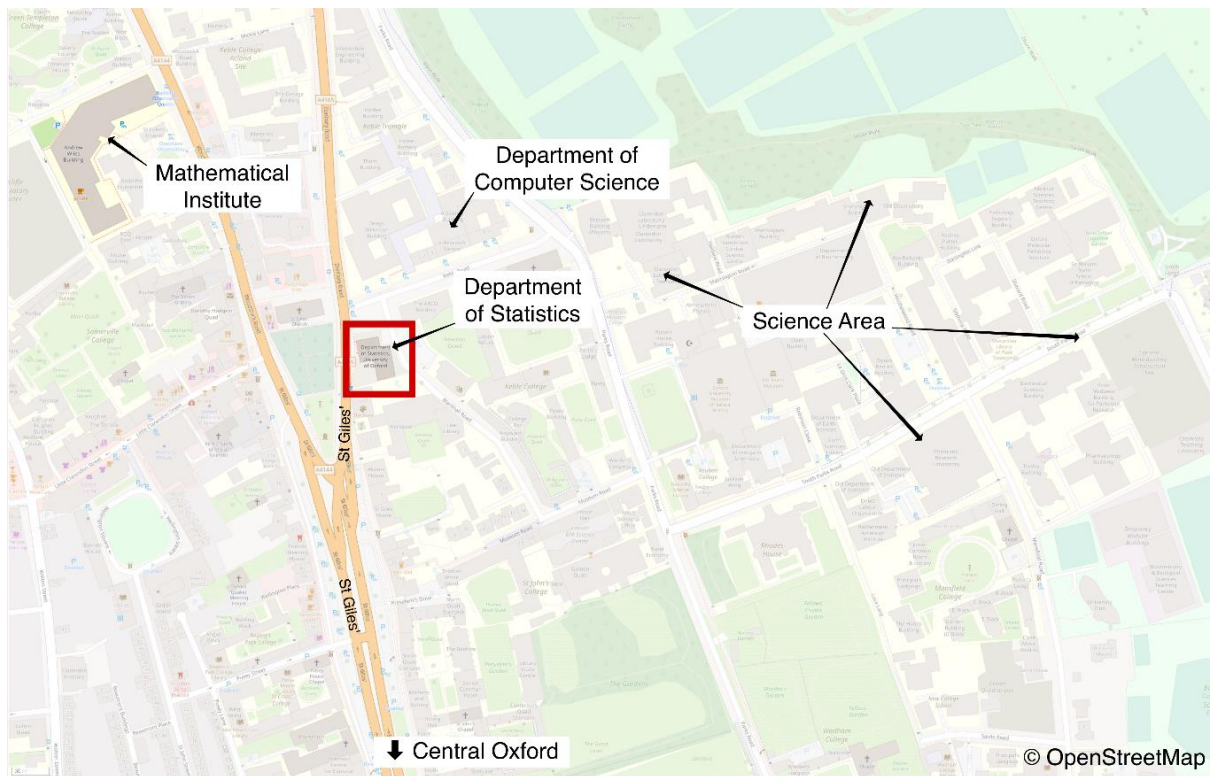


Figure 2: Map of central Oxford with the Department of Statistics outlined in red.

The Department is a world-leading research centre, with 78% of our research submission to the 2021 Research Excellence Framework (REF; jointly with the Mathematical Institute) being judged to be 4\*, the highest rating possible.

Since our last application in 2017, we have benefited greatly from our new building. It has improved our ability to collaborate and increased social activity.

However, the combined impact of Brexit, the COVID-19 pandemic, and the cost-of-living crisis has created a much more challenging operating environment. Recruitment to posts is increasingly difficult due to additional immigration hurdles, and the Department's financial position has been impacted by Division-wide reduced REF funding per full-time equivalent, while energy prices and staff pay commitments have increased. The COVID-19 pandemic caused staff workloads to increase suddenly and substantially, leading to higher levels of stress. The lockdowns imposed additional childcare responsibilities for some staff and isolation for others making 2020-2021 particularly difficult. Nevertheless, since our last submission the Department has grown in staff and student numbers. The Department now has five Statutory Professors, two of whom are women—both hired since 2017 (*Table 1 redacted*).



*Our new building helps encourage collaboration.*


Training the next generation of statistical scientists is a key part of our mission. In 2022-23, we had 274 students (36% F, 64% M); Table 2) — 63% of these were from 32 different countries outside the UK. We offer an undergraduate course in *Mathematics and Statistics* jointly with the Mathematical Institute; an *MSc in Statistical Sciences*; as well as postgraduate research degrees via traditional DPhil (PhD) routes and Centres for Doctoral Training (CDTs).

Since 2017, the number of students on our undergraduate course has grown from 85 to 121, and the proportion of women has grown from 30% to 42% (Table 2). Similarly, our postgraduate research population has grown, from 66 in 2017 to 108 in 2022.

Table 2: Students in the 2022-23 academic year.

Undergraduate			Postgraduate Taught			Postgraduate Research		
Total	% F	% M	Total	% F	% M	Total	% F	% M
121	42%	58%	45	44%	56%	108	27%	73%

### 1.3. Governance and recognition of equality, diversity, and inclusion work

#### a. Governance

The Department has six committees each with distinct responsibilities: (i) Equality, Diversity, and Inclusion; (ii) Facilities and Safety; (iii) Graduate Research (GRC); (iv) Information Technology (IT); (v) Research Strategy; and (vi) Teaching (*Figure 3*). Our committees have a two-way reporting structure into General Purposes Committee (GPC), which reports to Departmental Committee (DC). DC includes all academics, key staff, and postdoctoral and student representatives. Alongside these sit the Green Team and Graduate Liaison Group (GLG). An External Advisory Panel regularly provides feedback and advice.

<sup>1</sup> Research staff refers primarily to postdoctoral research staff and Florence Nightingale Bicentenary Fellows.

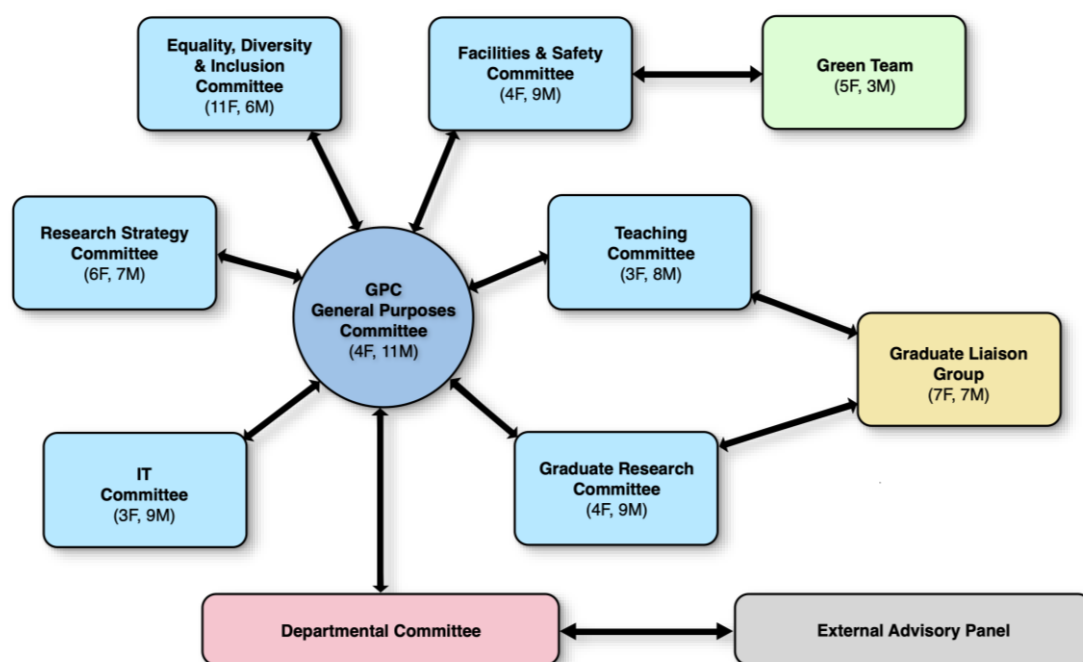


Figure 3: Governance structure of the Department of Statistics.

EDI matters are championed and supported by the Equality, Diversity, and Inclusion Committee, which comprises representative members of academic staff, researchers, support staff and students. Academic staff with key leadership roles — the Deputy Director of Graduate Studies (DDGS), the Director of Studies (DOS), and the Early Career Researcher (ECR) Champion — all sit on EDIC as part of their roles. It meets six times annually (twice per term) to discuss specific matters pertaining to EDI and to plan strategic EDI initiatives.

Since September 2022, the EDI Committee has two Co-Chairs: one male academic, Prof. Garrett M. Morris, and one female member of our Professional Services Staff (PSS<sup>2</sup>), Mareli Grady (see “Self-Assessment Team” and *Table 3* below). Membership of EDIC is reviewed annually to ensure it remains representative of staff and students and new perspectives can be included.

GPC may recommend changes to policy and new interventions for approval by DC. The two-way reporting mechanism between GPC and all other committees ensures that EDI considerations are embedded into the work of all committees within the Department.

The Department is also represented on the Divisional MPLS EDI Steering Group and via that on the University Equality and Diversity Panel (*Figure 4*) There is two-way representation with the Mathematical Institute’s own EDIC to share best practices and harmonise goals and actions where appropriate, particularly in relation to our shared students and initiatives.

<sup>2</sup> Note: we use “PSS” for Professional, Technical and Operational (PTO) staff throughout.

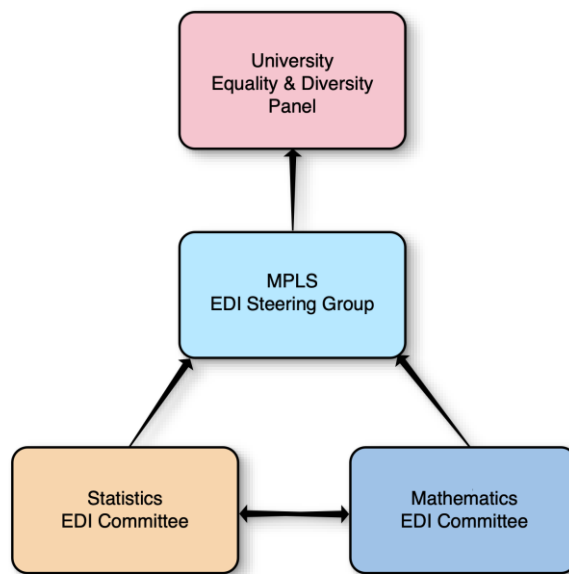


Figure 4. EDI governance at the University of Oxford.

#### **b. Recognition of EDI work**

All staff are offered annual Professional Development Reviews (PDRs) which include discussion of their contributions to EDI. As with any committee, serving on the EDIC is recognised and valued in PDRs. Active participation in EDI work can be used to evidence 'good citizenship' in applications for academic Recognition of Distinction (ROD). Staff are also eligible to be nominated to the biennial Vice-Chancellor's Diversity Awards, as well as the MPLS Divisional EDI Awards. In 2021, two members of the Department of Statistics received financial awards for their contributions to the annual Mental Health Awareness Week and for work on the Department's Race Equality Action Plan, and in 2023 three received commendations from MPLS for initiating and supporting EDI communications.

#### **c. Support for EDI work**

Three PSS have responsibility for supporting EDI work included in their role descriptions and are part of the University-wide EDI Facilitators Network which supports those working in this area and helps to share best practice.

The Department supports staff applying for the Divisional EDI Fellowship scheme, which allows individuals to contribute to EDI priorities whilst gaining career development. The Department has had an EDI Fellow each year since its inception in 2020. The EDI Fellow receives £1,000 from Departmental funds to spend on their career development.

In 2021-22, the Department spent over £40,000 on initiatives and events that were outcomes of actions in our previous Action Plan.

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*"Being given the opportunity to fully engage with work on mental health through my fellowship, and as one of the inaugural organisers of the Divisional Mental Health Awareness Week, I discovered my passion for supporting mental health in the workplace. Since then, I have been active in ED&I for mental health events, trained as a Mental health first aider, and have been pursuing further opportunities to promote good practice for wellbeing at work."*

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—EDI Fellow, 2020-21

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## 1.4. Development, evaluation, and effectiveness of policies

The Department has implemented formal consideration of the effect of our policies on EDI in accordance with the Public Sector Equality Duty (PSED). A reminder of the PSED is given at the beginning of all committee meetings, and committees must consider protected characteristics before implementation of significant policy decisions that have not already been considered at University level, or where our policy varies from that of the University.

Our democratic, committee-led governance structure enables scrutiny, consultation, and transparency of University and Departmental policies. Feedback is also gathered through annual staff and student surveys. EDIC receives a full analysis of surveys, which is shared with GRC and GLG, and may recommend actions to GPC and DC. This may then prompt quick action or lead to fuller investigation of issues identified. Where appropriate, senior members of staff who sit on University committees will escalate wider policy issues. Proposals for meaningful change require potential effects on sub-groups to be considered by using Equality Impact Assessments before proceeding.




The Department completes the University's Human Resources (HR) self-assessment audit every two years to ensure we are correctly applying and communicating HR policies effectively.










## 1.5. Athena Swan self-assessment process






### d. Self-Assessment Team (SAT)

The self-assessment process is the responsibility of EDIC, which acts as the SAT for the duration of the application preparation. Members (*Table 3*) are chosen to ensure key roles are represented, while allowing for volunteers such as student representatives. The EDIC, and therefore SAT, represents a cross-section of groups, working patterns, seniority, gender, sexual orientation, and other dimensions (*Table 3*). Given the time-consuming nature of annual data collection exercises, in 2021 the Department incorporated this responsibility into the job description of a new Research Support and Data Administrator position, who supports the SAT.

*Table 3: Membership of the Self-Assessment Team (EDIC, 2023).*

SAT Member		Panel Role	Department Role	Role Type
<b>Dr Maria Christodoulou</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Mental Health First Aider</li> </ul>		ECR Representative	Senior Statistical Consultant	Researcher
<b>Prof Christl Donnelly</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Caring responsibilities</li> </ul>		Head of Department	HOD, Professor of Applied Statistics	Academic
<b>Mareli Grady</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Caring responsibilities</li> </ul>		Co-Chair of EDI Committee	External Engagement and Project Manager	PSS

SAT Member		Panel Role	Department Role	Role Type
<b>Ali Goodall</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Caring responsibilities</li> </ul>		Mathematical Institute Representative	Head of Faculty Services and HR (Mathematical Institute)	PSS
<b>Amy Hinks</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Caring responsibilities</li> </ul>		MPLS Representative	EDI Data Analyst and Athena Swan Coordinator (MPLS)	PSS
<b>Yuedan Huo</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> </ul>		Undergraduate Representative	Undergraduate Student (3 <sup>rd</sup> Year)	Student
<b>Beverley Lane</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Mental Health First Aider</li> </ul>		Athena Swan Administrator	Administrative and Events Officer	PSS
<b>Dr Neil Laws</b> <ul style="list-style-type: none"> <li>Male, He/Him</li> </ul>		Director of Studies, Disability Lead	Director of Studies	Academic
<b>Ruth McCabe</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> </ul>		DPhil Representative	DPhil Student (3 <sup>rd</sup> Year)	Student
<b>Dr Gonzalo Mena</b> <ul style="list-style-type: none"> <li>Male, He/Him</li> </ul>		ECR Representative	Florence Nightingale Bicentenary Fellow	Researcher
<b>Prof Garrett M. Morris</b> <ul style="list-style-type: none"> <li>Male, He/Him</li> <li>LGBT+ Role Model</li> </ul>		Co-Chair of EDIC, Deputy Director of Graduate Studies	Associate Professor	Academic
<b>Dr Daniel Nissley</b> <ul style="list-style-type: none"> <li>Male, He/Him</li> </ul>		ECR Representative	Florence Nightingale Bicentenary Fellow	Researcher

SAT Member		Panel Role	Department Role	Role Type
<b>Prof Gesine Reinert</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Caring responsibilities</li> </ul>		ECR Champion	Professor of Statistics	Academic
<b>Prof David Steinsaltz</b> <ul style="list-style-type: none"> <li>Male, He/Him</li> </ul>		Academic Representative	Associate Professor	Academic
<b>Yuchen Sun</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> </ul>		MSc Representative	MSc Student	Student
<b>Dr Wenkai Xu</b> <ul style="list-style-type: none"> <li>Male, He/Him</li> </ul>		ECR Representative	Postdoctoral Research Assistant	Researcher
<b>Mariagrazia Zottoli</b> <ul style="list-style-type: none"> <li>Female, She/Her</li> <li>Mental Health First Aider</li> </ul>		EDI Fellow (2022-2023)	Statistical Consultant	PSS

### e. Data sources

The key sources of information used to inform this application were:

- Official University-collated data for mandatory datasets, alongside sector benchmark data.
- Data held locally around specific policies or initiatives.
- A full quantitative and qualitative analysis of the 2022 staff survey, which had 43 responses (26% F, 53% M, 21% Prefer Not to Say (PNTS)) and a participation rate of 65% (*Table 23 redacted*). This included comparison to 2017. This survey included questions from the pilot AdvanceHE Culture Survey.
- A full quantitative and qualitative analysis of the 2022 postgraduate research (PGR) student survey, which had 40 responses (25% F, 70% M, 5% PNTS) and a participation rate of 37% (*Table 24*). This included comparison to 2017.
- A review of progress against the 2017 (Previous) Athena Swan Action Plan ("PAP"; Annex 1 & *Table 4*).
- Feedback from the 2017 Athena Swan Panel.

Note: where survey results are quoted, references to gender exclude those who preferred not to say, but they are included in the "Total" figures reported in Appendix 1.

#### ***f. Summary of self-assessment timeline***

Annual monitoring tasks include collating and analysing the results of surveys for consideration at twice-termly EDIC meetings. Actions from the PAP were also followed up annually to assess progress, alongside reviewing our Race Equality Plan. Following feedback from the 2017 application, greater consideration was given of how we can provide sufficient evidence to demonstrate success and a clear narrative given the small size of our department. The SAT also decided to volunteer to pilot Advance HE's Culture Survey questions as part of the 2022 staff survey.

The self-assessment process began in 2022, with a series of task groups assigned to:

- Analyse the staff and student mandatory data for 2017-2021.
- Thoroughly review the PAP.
- Reflect, review, and develop actions and aspirations for the new Action Plan ("NAP").

From September 2022, a subset of the SAT worked on a deeper analysis of the staff and student survey data and drafted the Athena Swan application including the NAP. The draft NAP underwent extensive consultation with representatives and key stakeholders from January to May 2023, including through our committee structure. It was approved by DC in June 2023.

#### ***g. Next steps***

The EDIC will continue to meet at least termly over the next 5 years to discuss the Department's EDI strategy and oversee the implementation of the NAP, which will remain a standing item on the agenda thus allowing us to continuously evaluate it. A full review of the staff and student survey results and progress on actions will take place annually, as will the composition of the EDIC (which will become the SAT). The NAP will remain a dynamic document that will be updated in response to new data, feedback, the University context, and changes in the sector.

## **Section 2: An evaluation of the department's progress and success**

### **2.1. Evaluating progress against the previous action plan**

#### ***a. Previous action plan (RAG rated)***

See previous action plan from 2017 in Annex 1 (page 40).

#### ***b. Monitoring the 2017 action plan***

Implementation of the Athena Swan action plan is the responsibility of the EDIC, who take follow up actions, request reports required for annual data analysis, and provide updates to GPC and DC.

The effectiveness of actions is assessed through annual staff and student data updates and survey responses, as well as qualitative analysis of text comments and observations from other committees.

#### ***c. Overview of 2017 action plan***

The 2017 action plan had 22 objectives with associated actions across 7 themes. Through the process of RAG-rating we have reflected on the difficulties of assessing success when objectives and success measures were not clearly identified. In our RAG-rated review, we classified 15 actions as green (68%), 6 as amber (27%) and 1 (5%) as red (*Table 4*).

Table 4: Overview of objective RAG ratings from Previous Action Plan (PAP).

No	Green (15)	No	Amber (6)	No	Red (1)
PAP1	Give Equality, Diversity, and Inclusion Committee (EDIC) sufficient time to review the AS action plan, analyse survey results and train committee members.	PAP5	Reduce gender attainment gap in undergraduate degree classification.	PAP16	Ensure that graduate students are aware of training available.
PAP2	Consult with staff and students on a more frequent basis.	PAP7	Reduce gender attainment gap in MSc degree classification.		
PAP3	Improve transparency in the Department.	PAP8	Improve gender balance of DPhil programme.		
PAP4	Improve gender balance of undergraduate course.	PAP10	Increase recruitment rates for women to all academic positions.		
PAP6	Maintain the gender balance on the MSc course.	PAP19	Support staff returning to work from leave (including parental and family).		
PAP9	Obtain better data on the reasons why academic staff leave the Department.	PAP21	Increase visibility of diversity in the Department.		
PAP11	Introduce a mandatory objective-linked probation process for research staff.				
PAP12	Ensure induction process meets needs of new staff.				
PAP13	Ensure development needs of all staff are met.				
PAP14	Increase postdoctoral engagement with careers events and maintain satisfaction with career options.				
PAP15	Improve integration of postdocs into the Department.				
PAP17	Provide additional support for research and academic staff applying for funding.				
PAP18	Improve internal collaboration and networking.				
PAP20	Maintain inclusivity for all members of the Department.				
PAP22	Increase engagement with public.				

#### d. 'Green'-rated objectives

We rated 15 objectives as green and these reflect areas where substantial work has been done with demonstrable results (Figure 5). Review of green objectives and actions revealed that these were achieved because they could be advanced within the Department and did not rely on institutional or sector influences. This includes through the introduction of new policies (PAP1, PAP2), processes (PAP3, PAP6, PAP9, PAP11, PAP12), teaching materials (PAP4), events (PAP15, PAP18, PAP20, PAP22), and better communication (PAP13, PAP17). These initiatives benefited from senior leadership support and staff motivated to progress actions.



Figure 5: Overview of main achievements since 2017.

#### e. 'Amber'-rated objectives

We were able to divide these into two categories:

(1) *Objectives where considerable action was undertaken with limited impact on targets*

Many of our original objectives in this category were ambitious and influenced by external factors that as a department we have minimal control over. Increasing the proportion of women in graduate

research (PAP8) proved difficult given wider pipeline issues. Low staff turnover at the Associate Professor (AP) level and concomitant low rates of recruitment (*Table 20 redacted*) are further compounded by a wider, pre-existing gender imbalance in the field, meaning some actions have been insufficient to meet the objectives (PAP10).

*(2) Objectives where progress was slow due to the COVID-19 pandemic, resource constraints, and key staff turnover*

Trials of exam time extensions did not affect the attainment gap (PAP5, PAP7), and further work to understand the drivers of this were hampered significantly by the pandemic as resources were directed elsewhere. NAP7 continues this work.

Similarly, plans to increase the visibility of diverse groups in our physical spaces (PAP21) was delayed due to minimal access to these spaces for two years, so instead we progressed this work in our virtual spaces and will progress the original physical action in the next five years (NAP2).

Creating better mechanisms for supporting staff returning to work from leave (including parental and family, PAP19) was affected by the parental leave of the HR Administrator, and assessment of its effectiveness made difficult by small numbers of staff taking this category of leave.

#### **f. Barriers to success for 'Red' objectives**

The remaining red objective (PAP16) concerns student awareness of training and career development opportunities. Opportunities and communication suffered during the pandemic, with many resources diverted elsewhere. We have recently introduced more streamlined communications within the Department which aims to improve students' awareness of such opportunities (NAP3).



#### **g. Overall reflection**

Since the last application, the Department has introduced a range of initiatives and policy changes which are now part of our culture. The previous action plan aimed to address many sector-wide inequities, over-estimating the influence a single Department can have. The implementation of the action plan was also affected by turnover of staff and resultant loss of momentum and knowledge. In some instances, our success measures did not match the intention of the objective; this is something we have addressed in the new action plan.

In preparation for the next five years, we have resolved to:

- Strengthen the ownership of and responsibility for Athena Swan actions, to ensure progress and mitigate delays due to any future staff turnover.
- Ensure actions and objectives are Specific, Measurable, Achievable, Realistic, Time-bound (SMART) and developed collaboratively with those taking overall responsibility.
- Proactively shift strategies when priorities change, or actions are shown not to be having an effect.
- Ensure a joined-up approach with the Race Equality Charter so that actions address intersectional inequalities.

## 2.2. Evaluating success against the department's key priorities

We feel we have made considerable progress in three areas since 2016: (i) gender balance on our MSc; (ii) representation in our PGR students; and (iii) integration of our early-career researchers (ECRs).

### a. Maintain gender balance on MSc (PAP9)

The syllabus of the MSc course was updated in 2016 to include more computational statistics, and thus the course title was changed from “MSc in Applied Statistics” to “MSc in Statistical Science”. Prior to 2017, the course had a broadly equal gender balance.

From 2017-2021, data monitoring showed this gender balance disappeared, with only 40% of applications, 30% of offers and 38% of admitted students overall being women (Table 5). The number of places on the course also increased to 50, while applications from women increased from 167 in 2017 to 281 in 2021.

Table 5: Total MSc applications, offers and respective percentage of women, from 2017-2023.

Entry Year	Applications		Offers		On Course	
	Total	% F	Total	% F	Total	% F
2017	449	44%	71	24%	43	28%
2018	469	42%	59	29%	35	43%
2019	526	38%	68	26%	36	25%
2020	588	42%	114	34%	65	39%
2021	688	41%	83	33%	56	38%
2017 – 2021	2,720	40%	395	30%	418	38%
2022	551	38%	84	45%	45	44%
2023	584	42%	109	45%	-	-
2022 – 2023	1,135	40%	193	45%	45	44%

Concern about the drop in representation on the MSc led to a pilot process for 2022 admissions designed to separate the assessment of applications by gender, with the aim of increasing the proportion of women on the course to at least the national benchmark (Higher Education Statistics Agency (HESA) average: 42% for 2019-22). The rationale was that it would minimise implicit bias in the admissions process. Currently this is a binary process as the application form, administered by the central University, only allows applicants a choice of two gender identities.

MSc applications are evaluated separately for female and male applicants. Each assessor sees either all female or all male applications, with at least one academic member of the EDIC being part of each evaluation team. After the second evaluation, the lists for different genders of proposed offers and borderline candidates are merged to ensure that offers are made to the strongest candidates overall. In 2022 and 2023, this revised process led to the proportion of offers to women increasing to 45%,



and the proportion of women on course in 2022 to 44% (Table 5), exceeding the HESA benchmark for 2019-2022. The new admissions process has now become Departmental policy for MSc admissions.

Following this success, a recommendation was made by TC to GRC to pilot and evaluate a similar process for PGR admissions in 2023.

#### **b. Representation in postgraduate research students (PAP11)**

One of our priorities in our previous action plan was to address gender imbalance among our PGR students. Our annual average proportion of female PGR students between 2014-2016 was 26%, below the national average for Mathematical Sciences (which was on average 31% for that period).

We committed to developing a funded Departmental research internship programme for undergraduate students to enable them to experience research for an extended period. To avoid conflict with paid work and enable access for all, particularly for those who may need to rely on paid work over the summer, students are provided with a bursary of £3,429 for the eight-week internship (2023), with free accommodation being provided by one of Oxford's colleges.

*"The internship last summer really helped me make the decision to pursue graduate studies as it opened my eyes to what statistical research looks like!"*

—**Summer Research Intern, 2022**

The first Departmental Summer Internships took place in 2018, with two places being awarded in each of the first two years. At the same time the University began a broader summer research internship programme called "UNIQ+" targeting undergraduates from underrepresented backgrounds, co-led by Professor Garrett M. Morris (Department of Statistics, EDIC Co-Chair). UNIQ+ first ran in 2019 and drew huge interest: the programme received 200 applications for 34 places. The Department sponsored two UNIQ+ interns in 2019. The UNIQ+ programme is now one of the University's flagship graduate outreach programmes: in 2022, it

attracted 650 applications for 132 places in a programme that now spans 31 Departments.

In 2022, the Department expanded its Summer Research Internships. Thanks to funding from Google DeepMind, we added 12 more UNIQ+ internships with a specific focus in machine learning and artificial intelligence. The Department also set aside funding for a further 6 Departmental internships to run over 8 weeks and made a successful case for positive action to offer at least 50% of places to female candidates (subject to an academic quality threshold), citing the underrepresentation of women in graduate research.

In total, 20 internships were facilitated in 2022, with 60% participation from women (Table 6). All 2022 Departmental summer interns reported being interested in further graduate study, and four of the Departmental interns (2 F, 2 M) are progressing to graduate study in October 2023.

*Table 6: Participation in undergraduate Summer Research Internships in 2022.*

Internship Scheme	Female	Male	Total	% F
UNIQ+	9	6	15	60%
Departmental	3	2	5	60%
<b>Total</b>	12	8	20	<b>60%</b>

The longer-term impact of this expanded programme cannot yet be fully assessed, but the Department is committed to continuing with the summer internship programmes, including UNIQ+ (NAP6).

Overall, the proportion of women PGR students has remained at 26% between 2017-2022. During this time, the sector average has decreased to 29%, and our own population of PGR students has increased from 74 to 108. Comparison with other institutions suggests that we are performing well on this measure; over the same period at Cambridge, the proportion of women PGR students in Mathematical Sciences was 12%, and at Imperial College London it was 11%.

### c. Integration of Early Career Researchers (PAP25)

The Department's 2017 staff survey uncovered a need for greater support for our ECRs. Unlike undergraduates at Oxford, many ECRs are not affiliated with a college so the Departmental community is especially important to them. We also found that they would value more career support. In 2018, we reinstated and now provide Departmental funding of £2,600 per year for an ECR-led group called "The Network" that supports ECRs and focuses on dissemination of useful information for this staff group. In 2020, we introduced the role of ECR Champion which is filled by a senior academic who meets with every ECR upon arrival and proactively ensures their interests are represented in Departmental decision making.

Despite the isolation enforced on many by the COVID-19 pandemic, The Network continued to find ways to engage with ECRs, including setting up a WhatsApp group to help foster a sense of integration. Several outdoor and evening meet-ups have been organised where ECRs are able to share any struggles they are having.

*"The sense of community, the comfortable and aesthetically pleasing environment, the colleagues, helpful staff in general."*

**—Female ECR, 2022**

Our actions have led to increased satisfaction in a range of surveyed measures for this staff group since 2017, particularly in feeling integrated in the Department and career development. Note that this group is too small to meaningfully disaggregate by gender.

*Table 7: Progress in research staff integration, support, and career development from 2017 to 2022. Table lists percentage who agreed with each question.*

Survey Question	2017	2022	Change
<i>I feel integrated in the Department.</i>	40%	75%	↑
<i>I feel able to be myself at work.</i>	77%	92%	↑
<i>My colleagues are supportive of me.</i>	92%	100%	↑
<i>I take time to reflect on, and plan for, my career development.</i>	71%	93%	↑
<i>I feel integrated into my research group.</i>	92%	92%	↔
<i>I would recommend working in the Department.</i>	92%	100%	↑
<i>I have experienced bullying/harassment.</i>	9%	0%	↓
<i>My supervisor/line manager creates a positive work environment.</i>	83%	100%	↑

## Section 3: An assessment of the department's gender equality context

In this section, we use binary gender identities when discussing data and survey responses for staff or students. We refer to 'women' where there is an overarching objective to increase representation. Our department is too small to share results for non-binary staff, and such data are still relatively difficult to obtain within the University's systems. Similarly, we cannot meaningfully disaggregate by ethnicity or other intersectional factors, so we address these more broadly by drawing from acknowledged University and sector reports.

### 3.1. Culture, inclusion and belonging and 3.2 Key Priorities for future action

#### a. *Belonging and Inclusion*

The Department prides itself in being a welcoming environment for all. In the 2022 staff survey, 81% (equal between genders) of respondents agreed that they were satisfied in their job (compared with 71 % in the University) and 83% (82% F, 86% M) would recommend working in the Department (across the University 69% would recommend their Department; *Figure 12 redacted*). All respondents to the PGR student survey said they would recommend Oxford for postgraduate study (*Figure 13 redacted*). According to the 2021 Student Barometer survey, 84% of our undergraduate students (of 21 responses) were satisfied with their learning experience (compared with 87% satisfaction in 2017, and a Divisional average of 81%). The COVID-19 pandemic caused a substantial decrease in levels of survey participation but improved in 2023 to pre-pandemic levels (results due in the coming months).

In 2022, only one staff member (out of 39 respondents) disagreed that they felt like they belonged in the Department and that people cared about them (*Figure 6 redacted*). Only one woman felt they were not able to be themselves at work in both the staff and student (*Figure 15 redacted*) surveys. Most of our staff felt integrated into their team (91% F, 81% M; *Figure 16 redacted*), and most of our students felt integrated into their research group (90% F, 82% M; *Figure 17 redacted*).

The Department has worked hard over the last six years to embed inclusive practices for all, but particularly related to trans and non-binary members of and visitors to the Department. During the refurbishment of the building before we moved in (2017), most toilets were made gender-neutral, as standalone rooms with washbasins and hand-dryers. We have accessible toilets on every floor, and our ground floor accessible toilet also contains a baby-changing facility.

We provide progress flag lanyards, which anyone in the Department may choose to wear, and all staff are encouraged to include their pronouns on their email signature and web profile.

In recognition of the intersectional inequalities affecting our sector, we maintain a Race Equality Action Plan which is also managed by EDIC, with some actions overlapping with our Athena Swan Action Plan. In 2021, the Department worked with the Development Office, Mathematical Institute and Department of Computer Science to secure funding from Jane Street for scholarships aimed at UK black and mixed-black students to pursue taught postgraduate courses, with the objective of removing barriers to postgraduate study for this underrepresented group.



Department-wide events and initiatives are aimed at fostering a culture of inclusivity and togetherness. These include weekly coffee mornings during term time, an annual Christmas dinner and family-friendly summer parties. We also annually celebrate International Women's Day, Black History Month, LGBT+ History Month, and Pride Month, inviting keynote speakers and hosting events, including this year a journal club on intersectional issues in STEM. All staff and PGR students are invited. We have a strong collaborative relationship with the (larger) Mathematical Institute, and our staff and students are welcomed by their Mirzakhani Society for female and non-binary undergraduate students and Mathematrix, a discussion group about life in academia and matters faced by minorities aimed at PGR students, postdoctoral researchers, and staff.

The COVID-19 pandemic had a severe impact on our ability to meet and get to know each other. Since the return to on-site working, we noted less integration, particularly among students, of those who joined during this time. While only 10% of staff (no difference by gender) disagreed that they felt integrated into the Department (*Figure 16 redacted*), 16% (20% F, 14% M; *Figure 17 redacted*) of students disagreed (compared with 12% in 2017). Similarly, only 10% (0% F, 14% M) of staff disagreed that they felt included in the Department's social/networking activities, while 15% (20% F, 14% M) of students disagreed (compared with 6% in 2017).

During 2021 we introduced a weekly Departmental bulletin which shares a wide range of information and opportunities while reducing volume of email. It also allows us to share a wider range of opportunities and messaging around EDI.

In 2022, we launched a new Departmental website because our previous website was failing accessibility requirements. As part of this, we ensured a greater presence for our PGR students by introducing personal pages for them. In part this was to raise the profile of the work and achievements of PGR students and assist their career advancement as they seek collaborations and future employment. We engaged a professional photographer to obtain high-quality headshots of all staff and PGR students to be used on these pages. The headshots and other new imagery for the website highlight the diversity within the Department and give a snapshot of the environment.

**Objective 1: Maintain an inclusive environment for staff and students.**

*Actions:*

- 1.1 Support LGBT+ staff and students.
- 1.2 Improve the visibility of underrepresented groups in our physical and virtual spaces.
- 1.3 Create an environment where students and postdocs feel included in Departmental life.

**b. Gender Equality**

Our most recent staff survey affirms our commitment to EDI (*Figure 7 redacted*), with no one disagreeing that the Department leadership actively supports gender equality nor that the Department is committed to achieving gender balance in leadership positions. Only one man (and no women) disagreed that the rate that people progress is not affected by their gender, and only one woman (no men) disagreed that EDI is recognised when workload is allocated. Among our students two women and one man disagreed that members of the Department are treated equally regardless of gender (*Figure 18 redacted*). One woman (no men) disagreed that members of the Department are treated equally regardless of ethnicity/race. Thus, although these exceptions are important, most members of the Department feel that gender equality is supported.

### c. Bullying and Harassment

The Department has received no formal bullying and harassment complaints in the reporting period, but our staff and student surveys have recorded experiencing and/or witnessing bullying (*Figure 8 redacted*). We have four Harassment Advisors in the Department (1:44 staff and PGR students), as well as a reciprocal agreement with the Mathematical Institute and Division for access to their Harassment Advisors. We regularly remind staff and students of this provision, but in the 2022 staff survey 17% (27% F, 10% M; *Figure 8 redacted*) did not know how report bullying/harassment. Two female staff disagreed that Departmental management is active in tackling bullying and harassment and that they are satisfied with how it is addressed in the Department.

#### Objective 2: Continue to address bullying and harassment

##### Actions:

- 2.1 Set clear standards of behaviour and increase awareness of implicit bias.
- 2.2 Build confidence among staff and students in the reporting mechanism and the support in place for dealing with bullying and harassment.

### d. Career Development

The Department actively supports the career development and progression of staff and students. Among PSS, all those on Grade 5 or below are women, owing to small numbers of staff, and the men in this staff category predominantly working in IT. Since 2017, 5 PSS (all women) have been awarded regrades, with 8 research staff (3 F, 5 M) and 1 academic (M) promoted (*Table 22 redacted*). No female academic staff were eligible for promotion, as all were professors in 2017, or upon subsequent appointment. All staff are encouraged to undertake training and development activities through PDRs, with opportunities circulated on a regular basis. In 2022, one PSS member took part in a 6-month training course in continuous improvement, with the Department supporting the training through the implementation of a project as part of the course.

In general, staff are satisfied with the support offered around career development (*Figure 9 redacted*), but 20% (20% F, 18% M) of staff disagreed that they “receive useful feedback on my career development through performance reviews”.

*“The skills, knowledge and networks I gained from doing the continuous improvement course has had a direct impact on my career progression as well as benefiting the Department.”*

—PSS member, 2022

Students are encouraged and supported to apply for prestigious fellowships and funding opportunities, e.g., Google PhD Fellowships and Microsoft Research Fellowships. In 2022, two students were successful in gaining such fellowships, both from underrepresented groups within the field of Statistics. Despite this, we are aware that we need to do more; 28% (40% F, 25% M) of our students disagreed that they “were clear about the training and development options open to them” (*Figure 20 redacted*).

To enable PGR students with childcare responsibilities to access academic opportunities, we regularly signpost the University’s Returning Carers Fund. In addition, one PGR student was enabled to take her immediate family with her to a conference using her supervisor’s research funding. This meant it was possible for her to continue to breastfeed her very young baby whilst she attended the conference, with childcare support provided by her partner.

**Objective 3: Improve support of career development opportunities for staff and students.**

*Actions:*

- 3.1 Support training and development opportunities for students.
- 3.2 Improve feedback provided on career development as part of PDRs.
- 3.3 Promote and support career development opportunities for staff.

**e. Work-Life Balance and Wellbeing**

**Workload**

As a small Department, staff cover a range of responsibilities, and our PGR students carry out teaching duties in a supporting role. Whilst we do not employ a formal workload model, we strive for transparency in the way work is allocated, and the small size of the Department permits advanced discussions of individual workloads to feed into the overall planning. The nature of some contracts, which also involve duties at colleges, means that the Department does not have overall oversight and control over the totality of academic workloads for some staff.

In 2022, 32% (54% F, 19% M) of academic and research staff disagreed that *"My current workload is manageable"* (Figure 11 redacted) and 69% (91% F, 64% M) said that they *"experience a level of work-related stress that I perceive as unreasonable"* a lot or some of the time (Figure 21 redacted), a figure that has worsened significantly in women (54% in 2017). For students, 32% (55% F, 23% M) reported *"often experiencing a level of work-related stress perceived to be unreasonable"* (Figure 22 redacted). In addition, 21% of students (44% F, 15% M) disagreed that *"the systems for allocating teaching are fair and transparent"*, although only 8% (10% F, 7% M) disagreed with *"teaching duties within the Department are reasonable"* (Figure 25 redacted).

A special workload poll in 2023 revealed that the number of meetings and administrative burdens contributed significantly to these experiences.

In 2021, we streamlined our governance structure to reduce the number of committees and introduced more formal methods of assessing committee effectiveness. As the overall burden of work is not within our control, the focus in our NAP is on efficiency and clarity of communication. Our concern about workload also necessarily means in some cases we will scale back the volume of our activities to those with the greatest impact.

**Objective 4: Reduce experience of unreasonable workload and work-related stress.**

*Actions:*

- 4.1 Ensure equitable workload distribution among academic and research staff.
- 4.2 Improve communication around teaching duties of PGR students.
- 4.3 Encourage culture change around workload.
- 4.4 Increase efficiency and effectiveness of meetings.
- 4.5 Streamline administrative processes.



## Work-life balance

We already support work-life balance for staff in a variety of ways, by offering:

- Flexible working hours.
- Flexibility around working pattern (on-site/home/hybrid).
- Committee meetings scheduled between 11 am – 1 pm.
- At least 30 days of annual leave per year plus Bank Holidays (*pro rata* for part time staff).
- Additional annual leave through salary-sacrifice.
- Priority childcare places.

In the 2022 culture survey, staff reported satisfaction with the practices in place to support work-life balance (Figure 10). No staff disagreed that *"the timing of departmental meetings and events takes into consideration those with caring responsibilities"* and only one man disagreed that *"my department provides staff with support around all types of caring leave"* and *"my department enables flexible working."* One man and two women disagreed that *"workloads in my department are allocated fairly."*

In the 2022 student survey, 3% (0% F, 4% M) disagreed that *"meetings and seminars are scheduled to take potential caring responsibilities into account"* (Figure 26 redacted); but 13% (40% F, 4% M) disagreed that *"I am satisfied with the balance between my work and home responsibilities"* (Figure 24 redacted).

Annual leave entitlement for staff and students is generous, with a minimum of 30 days (plus Bank Holidays). 81% (80% F, 78% M) of students were satisfied with their leave entitlement but 23% (40% F, 19% M) did not feel they able to take all the holidays to which they were entitled (Figure 27 redacted).

## Mental Health

Members of our Department inspired, and were instrumental in enabling, the Division's annual Mental Health Awareness Week, which aims to promote and provide opportunities to reflect on maintaining good mental health. We continue to support this annual event and have 7 trained Mental Health First Aiders (1:25 staff and PGR students) who can provide support to anyone experiencing acute need.

In the 2022 culture survey, 52% (72% F, 59% M) of staff agreed with *"I know where to seek support for mental health and/or wellbeing"*, and 38% (54% F, 32% M) of staff agreed *"I feel confident asking for mental health support at work"* (Figure 11 redacted). This is much lower than we would like. Among students, only 10% (10% F, 11% M) disagreed that *"My mental health and wellbeing are being supported in my Department."*

In 2022, we signed up to the Menopause Pledge, committing to supporting staff going through the menopause and to making suitable arrangements and taking their needs into account.

### Objective 5: Improve support around health and wellbeing.

#### Actions:

- 5.1 Continue to protect the health and wellbeing of staff and students.
- 5.2 Ensure staff and students are able to take restorative breaks and are aware of support for carers.

**f. Representation amongst academic and research staff**

At senior level, our Department is unusually gender-balanced for the field, with 7/13 (54%) posts filled by women. Our staff data reveal a different picture at ECR and AP positions. Women currently make up 19% of our ECRs, and none of our current Florence Nightingale Bicentenary Fellows (FNBFs) are women, although one female FNBF will join in September 2023. Following the promotion of our only female AP to Titular Professor in 2017, all our APs are currently male. This clearly represents a long-term pipeline issue to senior positions which we are keen to address. We also know that staff from ethnic minorities are underrepresented in the University at all levels, and within these roles in our field.

Overall, since 2017 we have had only 12 academic positions become vacant, including the new FNBFs. 17% of applicants and shortlisted candidates to these roles were female, and three of the offers made and accepted were to women (27%; *Table 20 redacted*); two of these were Statutory Professorships (the most senior academic posts). Associate Professor roles are typically permanent, and open positions are comparatively rare (3 since 2017; all appointees men). When we decided to discontinue recruiting to fixed-term Departmental Lecturer positions in favour of Fellowships, our aim was to reduce the gender pay gap and increase the representation of women in permanent positions. This has not been the effect in practice, with the gender imbalance in AP positions persisting.

Research positions offer most scope for immediate improvement due to the fixed-term nature of these roles. Since 2016, we have had 45 postdoctoral research positions advertised and filled. For these, on average 25% of applicants and 24% of shortlisted candidates were female; 20% of offers accepted were female, constituting only a small drop in representation through the recruitment process (*Table 20 redacted*). Nationally, however, 29% of PGR students are female (*Figure 30 redacted*). Retaining women and other underrepresented groups from postgraduate studies into postdoctoral research positions is a persistent issue within our sector and subject area.

To emphasise our commitment to EDI, all future job advertisements for the Department will have an essential selection criterion added: "A commitment to promoting equality, diversity, and inclusion in Statistics."

We acknowledge that perceptions and experiences of academic life may also be affecting the decisions women and other underrepresented groups choosing to stay within academia. Our Department is already perceived as a supportive and flexible place to work but concerns around work-related stress persist, as seen in Section 3.1a.

**Objective 6: Improve the gender balance among PGR students, and academic and research staff.**

*Actions:*

- 6.1 Develop and improve our recruitment process for academic and researcher roles.
- 6.2 Provide effective support for progression of female and black and minority ethnic (BME) staff into senior academic roles.
- 6.3 Improve external communications and advertising.
- 6.4 Provide opportunities for female undergraduates to experience graduate research.
- 6.5 Ensure equitable PGR admissions processes.
- 6.6 Better understand and support onward careers of PGR alumni.



### **g. Degree-award gender gap**

Equality through the academic pipeline is highly dependent on the students we admit, and their eventual attainment on course. Currently in admissions we have a gender imbalance at all levels of study: undergraduate, postgraduate taught (MSc) and PGR, but compared to all benchmarks our Department is doing well (*Figure 28, Figure 29, Figure 30 all redacted*).

We remain concerned about the degree-awarding gender gap. Between 2017-2022, 25% of undergraduate women were awarded a First in Part B (third year), compared with 42% of men (*Table 1 redacted*). For those students who continue to Part C (fourth-year, Masters-level), 38% of women were awarded a Distinction in 2020-2022 compared to 66% of men (*Table 15 redacted*), a figure that worsened after a change to the classification used.

Degrees awarded on the MSc are also unequal by gender. In 2020-22, 40% of women were awarded a Distinction compared to 65% of men (*Table 16 redacted*).

We are aware that awarding gaps also exist by ethnicity in the University. We are unable to measure any intersectional impact in a meaningful way in our Department due to the size of our dataset, but future actions will consider recommendations from the University's report on the degree-awarding ethnicity gap.

#### **Objective 7: Reduce degree-awarding gaps**

##### *Actions:*

- 7.1 Understand the drivers of the degree-awarding gender gaps for our courses.
- 7.2 Build on institutional recommendations to reduce degree-awarding gaps.

### **h. COVID-19**

The COVID-19 pandemic presented many challenges to staff and students. The sudden transition to working from home brought major disruption to working practices, leading to a substantial increase in workload. Teaching staff had to adapt to different methods of teaching overnight. The University of Oxford as an institution can be slow to change, and digital teaching was at an embryonic stage when the pandemic started. PSS who were assisting with the planning, logistics, and communication also had to get to grips with new technologies, processes, and an increase in enquiries under incredibly pressured conditions. We were acutely aware of the potential impact of this on colleagues who also had to manage their children's educational demands, and how often the additional burden of this work fell to women in society. We were also aware that colleagues who lived alone were more likely to suffer from the effects of loneliness and isolation. Our Head of Department stayed connected with weekly emails and regularly affirmed that health and family should be the priority of staff during those difficult times. The Department also ran wellbeing surveys every two weeks to enable feedback, identify issues and work on solutions.

#### **"General wellbeing:**

*Inevitably, some people are finding their workload overwhelming, while others are finding that their job has all but evaporated, which makes them feel guilty.*

*For those in the first category, you are only human; prioritise and if there is anything that we can do to help, then just ask (and if we are the source of the problem, tell us so). For those in the second category, you have no reason to feel guilty (and you are certainly not alone in so-doing). If there is, for example, online training that you could do, then this is an opportunity. But the most important thing is to look after your own mental health. And for those in any category: family comes first."*

**—Email from Head of Department, 2020**

It is not an exaggeration to say that staff were exhausted in 2020-21 by professional and personal responsibilities, or from isolation and loneliness. This ongoing legacy is captured in our staff survey responses, even as we work to alleviate its effects.

## Section 4: Future action plan

### 4.1. 2023 Department of Statistics Athena Swan Action Plan

See also: Action Plan Gantt chart in Appendix 4.

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
<b>Objective 1: Maintain an inclusive environment for staff and students.</b> <b>Key Targets by 2028:</b> <ul style="list-style-type: none"> <li>&lt;10% of students disagreeing that “<i>I feel included in the Department’s social/networking activities</i>” and “<i>I feel integrated into the Department</i>”.</li> <li>&gt;80% of staff and students agree that “<i>I feel like I belong in the Department</i>”.</li> </ul> <b>Rationale:</b> <ul style="list-style-type: none"> <li>In the 2022 staff survey: <ul style="list-style-type: none"> <li>78% (81% F, 82% M) agreed that they feel like they belong in the Department.</li> </ul> </li> <li>In the 2022 student survey: <ul style="list-style-type: none"> <li>15% (20% F, 14% M) did not feel included in the Department’s social/networking activities.</li> <li>16% (20% F, 14% M) did not feel integrated into the Department.</li> </ul> </li> </ul>					
1.1	Support LGBT+ staff and students.	1.1.1. Expansion in optional use of pronouns on email signatures and web profiles.  1.1.2. Offer training courses on <i>Trans Awareness – The Basics</i> and <i>Intersectional Allyship</i> annually.  1.1.3. Celebrate LGBT+ History Month and Pride Month.  1.1.4. Offer <i>Implicit Bias</i> and <i>Bystander</i> training in Induction Week for new students.	EDIC Co-Chairs/EDIC members  With support from HR and Finance Administrator (HRFA)	October 2023 onwards  October 2023 onwards	At least 50% of staff and student profiles use pronouns by 2027.  Maintain >90% agreement in staff and student surveys to <i>I feel able to be myself at work</i> .

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
1.2	Improve the visibility of underrepresented groups in our physical and virtual spaces.	1.2.1 Commission of photography and artwork for our stairwells and communal spaces that reflects our diversity.	EDIC Co-Chairs/EDIC members	July 2023 to October 2025	New artwork in place.
		1.2.2 Annually update research posters in corridors and reflect diversity by encouraging students to include headshots of themselves.	Research Strategy Committee (RSC) Chair	July 2023 onwards Review of language and images commences by January 2024.	>80% staff and students agree in survey that <i>I feel like I belong in the Department.</i>
		1.2.3 Review of inclusivity of language and images used on website, with guidance produced for web editors.	External Engagement and Project Manager (EPM)	July 2023 to March 2024	2022 baseline: 82% for staff; question not included for students.
1.3	Create an environment where students and postdocs feel included in Departmental life.	1.3.1 Improve induction for new students to highlight Departmental social and networking activities.  1.3.2 Enable and promote more social events for students and postdocs by ring-fencing funding for student-led activities in EDIC budget.	DGS/Academic Administrator (AA)  EDIC Co-Chairs with support from Events coordinator	October 2023 onwards  August 2024 onwards	<10% students disagree that <i>I feel included in the Department's social/networking activities and I feel integrated into the Department.</i>  2022 baseline: 15% (20% F, 14% M) disagreed that <i>"I feel included in the Department's social/networking activities"</i> and <i>"I feel integrated into the Department"</i> .

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
<b>Objective 2: Continue to address bullying and harassment</b> <b>Key Targets by 2028:</b> <ol style="list-style-type: none"> <li>(1) Decrease the proportion who disagree in the staff and student surveys to <i>I know how to report bullying and/or harassment</i> to &lt;10%.</li> <li>(2) Reduce reports in both staff and student surveys of <i>I have experienced bullying or harassment in my Department in the past 12 months?</i> to 1 or none.</li> </ol> <b>Rationale:</b> <ul style="list-style-type: none"> <li>In the 2022 staff survey: <ul style="list-style-type: none"> <li>3 reports of experiencing bullying/harassment.</li> <li>17% (27% F, 10% M) know how report bullying/harassment.</li> </ul> </li> <li>In the 2022 student survey: <ul style="list-style-type: none"> <li>1 report of experiencing and 2 reports of witnessing bullying/harassment.</li> </ul> </li> </ul>					
2.1	Set clear standards of behaviour and increase awareness of implicit bias.	2.1.1 Clear communications about standards of behaviour at induction and throughout the year.	HRFA and Course Directors	October 2023 onwards	Reports of experiencing harassment/bullying in the staff and student surveys at 1 or none per year.
		2.1.2 Introduce a standard calendar of training (including at induction) for all staff and students to increase awareness of implicit bias and to tackle bullying and harassment; review suitability annually.	HOD with support from HAF and DGS.	October 2023 onwards	
2.2	Build confidence among staff and students in the reporting mechanism and the support in place for dealing with bullying and harassment.	2.2.1 Regularly communicate the mechanisms of reporting harassment and/or bullying.	EDIC Co-Chairs	July 2023 onwards	Reduce staff and students disagreeing that <i>I know how to report bullying and/or harassment</i> to <10%.  2022 baseline: 17% (27% F, 10% M) reported <i>"I know how to report bullying and/or harassment</i> to <10%."
		2.2.2 Maintain number of Harassment Advisors.	EDIC Co-chairs	Ongoing	
		2.2.3 Management/leadership training to equip them to deal with difficult situations.	HRFA and Course Directors with support from AA	January 2024 to October 2024	

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
<b>Objective 3: Improve support of career development opportunities for staff and students</b> <b>Key Targets by 2028:</b> <ul style="list-style-type: none"> <li>(1) &lt;10% of staff disagree that <i>I receive useful feedback on my career development through performance reviews.</i></li> <li>(2) &lt;20% of female students and all students disagree that <i>I am clear about the training and development options open to me.</i></li> </ul> <b>Rationale:</b> <ul style="list-style-type: none"> <li>In the 2022 staff survey: <ul style="list-style-type: none"> <li>20% (20% F, 18% M) of staff disagreed that <i>I receive useful feedback on my career development through performance reviews.</i></li> </ul> </li> <li>In the 2022 student survey: <ul style="list-style-type: none"> <li>28% (40% F, 25% M) of students disagreed that <i>I am clear about the training and development options open to me.</i></li> </ul> </li> </ul>					
3.1	Support training and development opportunities for students.	3.1.1 Advertise all training and development opportunities in the Departmental weekly bulletin.  3.1.2 Provide application guidance and support students to take part in training and development.	EEPM  DGS, with support from supervisors	Ongoing  Ongoing	<20% of all students and <20% of female students disagree that <i>I am clear about the training and development options open to me.</i>  2022 baseline: 28% (40% F, 25% M) of students disagreed that <i>"I am clear about the training and development options open to me"</i> .
3.2	Improve feedback provided on career development as part of staff PDRs.	3.2.1 Review guidance and templates for PDRs to ensure they include career development.  3.2.2 Training for line managers on providing feedback around career development as part of PDRs.	HRFA  HRFA	January 2024 to August 2024  January 2024 to August 2024	<10% of staff disagree that <i>I receive useful feedback on my career development through performance reviews.</i>  2022 baseline: 20% (20% F, 18% M) of staff disagreed that <i>"I receive useful feedback on</i>

No.	Action	Activities and Outputs		Responsibility	Timeframe	Success Measure
						my career development through performance reviews.
3.3	Promote and support career development opportunities for staff.	3.3.1	Promote the University's <i>Career's Club</i> and <i>Professional Services Together</i> initiatives to PSS.	EEPM	Ongoing	<10% of staff disagree that <i>I am clear about the career options open to me.</i>  2022 baseline: 14% (18% F, 13% M) of staff disagree that <i>"I am clear about the career options open to me."</i>
		3.3.2	Promote opportunities for academic and research staff through the Departmental weekly bulletin.	EEPM	Ongoing	
		3.3.3	Provide support and encouragement to engage with available opportunities.	Line managers	Ongoing	
<b>Objective 4: Reduce experience of unreasonable workload and work-related stress</b> <b>Key Targets by 2028:</b>  (1) <30% of academic and research staff disagree that <i>"My current workload is manageable"</i> . (2) <15% of academic and research staff report that they <i>experience a level of work-related stress that you perceive as unreasonable</i> a lot of the time. (3) <25% of female students agree that <i>I often experience a level of work-related stress that I perceive as unreasonable.</i>  <b>Rationale:</b>  • In the 2022 staff survey: <ul style="list-style-type: none"><li>32% (67% F, 19% M) of academic and research staff reported an unmanageable workload and,</li><li>22% (17% F, 25% M) of academic and research staff reported unreasonable work-related stress a lot of the time.<ul style="list-style-type: none"><li>Subsequent workload-specific poll identified that meetings, volume of email and administrative duties as key areas contributing to work-related stress.</li></ul></li></ul> • In the 2022 student survey: <ul style="list-style-type: none"><li>(i) 32% (55% F, 23% M) reported often experiencing a level of work-related stress they perceived to be unreasonable.</li></ul>						
4.1	Equitable workload distribution among academic and research staff.	4.1.1	Annual PDRs considering individual responsibilities and workload.	HOD with support from line managers	July 2023 to October 2024.	<30% of academic and research staff reporting unreasonable workload;
		4.1.2	Training for line managers on conducting effective PDRs, particularly for research staff.	HOD with support from DOS and HRFA	July 2023 to October 2024	<15% academic and research staff reporting unreasonable

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
		<p>4.1.3 Report on workload distribution in common areas of responsibility, including committee membership, teaching and supervision duties within the University.</p> <p>4.1.4 Review and, if necessary, update which categories of students (particularly those affiliated to external CDTs) are expected to provide teaching assistance.</p>	<p>HOD with support from DOS</p> <p>DOS</p>	<p>July 2023 to October 2024.</p> <p>April 2024</p>	<p>work-related stress a lot of the time.</p> <p>All research staff receive a PDR within 2 years, and rate it as useful in the staff survey.</p> <p><i>2022 baseline: 6/9 received a PDR, all rated it at least 'somewhat useful'.</i></p>
4.2	Improve communication around teaching duties of PGR students	<p>4.2.1 Review and, if necessary, improve communication of expected duties each year.</p> <p>4.2.2 Produce annual summary report on teaching allocation for transparency.</p>	<p>DOS</p> <p>DOS with support from AA</p>	<p>October 2023 to April 2024</p> <p>Ongoing</p>	<p>&lt;20% female students and &lt;10% all students disagreeing that the <i>systems for allocating teaching are fair and transparent.</i></p> <p><i>2022 baseline: 21% (44% F: 15% M)</i></p>
4.3	Encourage culture change around workload.	<p>4.3.1 Celebrate the flexibility of academic careers, and set realistic expectations and boundaries for ECRs and students at induction.</p> <p>4.3.2 Building on the Values and Behaviours Framework for PSS, reward and recognise staff annually, and nominate students and staff for Divisional and University awards across a range of work including EDI.</p> <p>4.3.3 Incorporate recommendations of University's review of reward and resourcing for EDI work.</p> <p>4.3.4 Sign-post to relevant training for workload management and imposter syndrome.</p> <p>4.3.5 Repeat workload poll to measure improvement.</p>	<p>HOD/EDIC with support from line managers</p> <p>EDIC</p> <p>EDIC</p> <p>EEPM</p>	<p>September 2023 onwards</p> <p>July 2023 onwards</p> <p>October 2025 to January 2026</p> <p>Ongoing</p> <p>January to July 2025.</p>	<p>&gt;80% of staff agree that their contributions are valued in the Department.</p> <p><i>2022 baseline: 71%</i></p> <p>&lt;25% of female students experience a level of work-related stress that they perceive as unreasonable a lot of the time.</p> <p><i>2022 baseline: 55%</i></p>



No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
			EDIC		
4.4	Increase efficiency and effectiveness of meetings	<p>4.4.1 Arrange training for committee chairs on conducting effective meetings</p> <p>4.4.2 In addition to annual committee effectiveness reviews, review committee membership to balance representation against individual workload, and consider appropriate frequency of meetings.</p> <p>4.4.3 Guidance for student and postdoc members of committees to ensure they empowered to contribute.</p>	<p>HOD/HAF</p> <p>EDIC</p>	<p>July 2023 to October 2024.</p> <p>July 2023 to October 2023.</p> <p>July 2023 to October 2023</p>	<p>All committee chairs have attended training.</p> <p>All committees agree that <i>"Committee meetings are conducted efficiently and effectively."</i></p>
4.5	Streamline administrative processes	<p>4.5.1 Use Continuous Improvement tools to identify and bring efficiency to common administrative processes.</p> <p>4.5.2 Share best practice with other Departments around administrative processes.</p> <p>4.5.3 Encourage PSS to join Communities of Practice for their areas of work.</p>	HAF/PSS	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	<p>&lt;10% of responses to future workload poll question</p> <p><i>Which parts of your role contribute most to you experiencing work-related stress? mention administrative processes.</i></p> <p><i>2023 baseline: 22% of staff mentioned administration.</i></p>

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
<b>Objective 5: Improve support around health and wellbeing</b> <b>Key Targets by 2028:</b> <ol style="list-style-type: none"> <li>(1) &lt;5% of staff and students disagreeing that <i>"My mental health and wellbeing are being supported in my Department"</i>.</li> <li>(2) &lt;15% of students disagreeing that <i>"I feel able to take all the holidays I am entitled to take"</i>.</li> </ol> <b>Rationale:</b> <ul style="list-style-type: none"> <li>In the 2022 student survey: <ul style="list-style-type: none"> <li>10% (10% F, 11% M) did not feel their mental health is being supported.</li> <li>23% (40% F, 19% M) did not feel able to take their allocated holiday.</li> </ul> </li> <li>In the 2022 staff survey: <ul style="list-style-type: none"> <li>11% (9% F, 9% M) of staff did not feel their mental health is being supported.</li> <li>26% (36% F, 23% M) of staff were not satisfied with the balance between work and home life.</li> </ul> </li> </ul>					
5.1	Continue to protect the health and wellbeing of staff and students.	5.1.1 Maintain recruitment and training of mental health first aiders.	EDIC Chairs with support from HFA	Ongoing	<5% of staff and students disagreeing that <i>"My mental health and wellbeing are being supported in my Department."</i>
		5.1.2 Continue to advertise/signpost to available mental health support.	EEPM	Ongoing	
		5.1.3 Implement recommendations of the Menopause Pledge in line with Objective 4.4 of the University's Athena Swan action plan.	HAF	July 2023 to March 2024.	
5.2	Ensure staff and students are able to take restorative breaks and are aware of support for carers.	5.2.1 Better promote additional annual leave scheme to all staff.	HAF with support from HRFA	September 2023 onwards	All staff take their allocated annual leave each year.  <15% students disagreeing that <i>"I feel able to take all the holidays I am entitled to take"</i> .
		5.2.2 Better promote support available through "Work + Family Space" to all staff.		Ongoing	
		5.2.3 Improve ability of students to take adequate holidays by raising awareness with supervisors.	DGS with support of AA	October 2023 onwards	

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
<b>Objective 6: Improve the gender balance of graduate research students, and academic and research staff</b>  <b>Key Targets by 2028:</b> <ul style="list-style-type: none"> <li>• Shortlist at least one female candidate for Associate Professor roles.</li> <li>• &gt;23% of postdoctoral staff are women.</li> <li>• &gt;30% of applications for graduate research are from women.</li> </ul> <b>Rationale:</b> <ul style="list-style-type: none"> <li>• While the Department has an equal gender balance in senior academic (Professorial and RSIV) roles, it currently has no women Associate Professors. Recruitment to these positions happen rarely, with only 3 recruited between 2017-2022.</li> <li>• In 2022, 19% of postdoctoral researchers were women, and 1 out of 9 appointed Florence Nightingale Bicentenary Fellows were women.</li> <li>• Over the period 2017-2022, 25% of applicants, 23% of those shortlisted and 17% of offers to postdoctoral research positions were women.</li> <li>• Over the period 2017-2022, some research posts had no applications from women at all.</li> <li>• Over the period 2017-2022, 24% of applications for graduate research were from women.</li> </ul>					
6.1	Develop and improve our recruitment process for academic and researcher roles.	6.1.1 Incorporate recommendations of the University's Associate Professor Inclusive Recruitment (APIR) guidance. 6.1.2 Use the APIR guidance as best practice in applying similar inclusive guidelines to other academic and research grades, to address pipeline issues. 6.1.3 Proactive candidate search and encouragement. 6.1.4 Compulsory <i>Recruitment &amp; Selection</i> and <i>Implicit Bias</i> training for all recruitment panel members. 6.1.5 Annual reports on success in attracting mixed gender shortlists to RSC and GPC.	RSC Chair with support from HRFA  RSC Chair with support from HRFA  HOD with support from RSC Chair  HOD with support from HRFA  RSC chair with support from HRFA	January 2024 to October 2024  January 2025 to October 2025  Ongoing  January 2024 onwards  October 2024 onwards	23% of postdoctoral staff are women by 2027.  100% of recruitment panels have the required training within the last 3 years.  Recruitment data maintain women shortlist and offer proportions at least equal to percentage of women applicants.  Shortlist at least one female candidate for Associate Professor roles.

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
6.2	Provide effective support for progression of female and BME staff into senior academic roles.	6.2.1 Implement recommendations from University's Leadership Review.	HOD with support from HAF	January 2025 onwards	>25% of Florence Nightingale Bicentenary Fellows recruited between 2023 and 2027 are women.  <i>2017-2022: 2/12 FNBFs recruited were women</i>
		6.2.2 Lobby the University on EDI issues through appropriate channels to improving contractual security for fixed-term researchers and eligibility for maternity leave.	HOD	Ongoing	
		6.2.3 Introduce a Carers' Support Fund, to provide support staff with caring responsibilities to attend conferences.	EDIC	July 2023 to November 2023.	
6.3	Improve external communications and advertising.	6.3.1 Investigate employing a part-time Communications Officer to implement a communications strategy focused on improving the Department's digital profile with a view to attracting a more diverse applicant pool at all levels.	HOD with support from HAF	July 2023 to August 2024	>30% applications for graduate research are from women.  <i>2017-2022 – 24% of graduate research applications from women.</i>  All research posts have applications from women.  <i>2017-2022 – 33/39 research positions had applications from women.</i>
		6.3.2 Improve and increase advertising to attract more high-quality applicants, particularly from underrepresented groups, including by engaging social media experts.	DGS with support from EEPM	July 2023 to August 2024	
		6.3.3 Build a stronger digital presence to promote the Department to a wider audience.	EEPM	July 2023 onwards	
		6.3.4 Increase scholarship funding available to underrepresented groups through engagement with Development Office and improved external communications.	HOD with support from DGS, DOS and EEPM	July 2023 to August 2026	
6.4	Provide opportunities for undergraduate women to experience graduate research.	6.4.1 Continue Summer Research Internships programme, including participation in UNIQ+.	DGS with support from Academic administration staff	July 2023 onwards	>30% of women summer research interns progress to graduate research (at any institution).

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
6.5	Ensure equitable PGR admissions processes	6.5.1 Implement gender-segregated shortlisting policy for PGR admissions.	DGS with support from AA	July 2023 to December 2023	Proportion of women PGR students at or above national benchmark level.  <i>2022 baseline: 27% of PGR students are women.</i>
		6.5.2 Engage with the University's Selection Pilot and implement identified best practice.	DGS with support from AA	January 2024 onwards	
6.6	Better understand and support onward careers of PGR students	6.6.1 Annually monitor leaver destination data.  6.6.2 Identify areas where further career support may be required and develop actions as appropriate.	EDIC with support from AA  EDIC	October 2023 onwards  Ongoing	< 10% of students disagree that <i>I am clear about the training and development opportunities available to me.</i>  <20% of women students disagree that <i>I am clear about the training and development opportunities available to me.</i>  <i>2022 baseline: 18% (10% F, 21% M) disagreed that "I am clear about the training and development opportunities available to me".</i>  28% (40% F, 25% M) disagreed that <i>"I am clear about the training and development opportunities available to me".</i>

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
<b>Objective 7: Reduce degree-awarding gender gap</b> <b>Key Targets by 2028:</b> (1) Reduction by at least 15% in the degree-awarding gender gap at all taught course end points. <b>Rationale:</b> <ul style="list-style-type: none"> <li>An awarding gap between men and women persists at all taught course endpoints, and prior attempts at addressing this have not been successful.</li> <li>Our courses are too small to meaningfully measure ethnicity awarding gaps, but we are aware it is an issue in the University.</li> </ul>					
7.1	Understand the drivers of the degree-awarding gender gap for our courses.	7.1.1 Investigate and report on the potential factors affecting the degree-awarding gender gap, joint with Mathematical Institute, to understand the drivers. 7.1.2 Consult with students to identify barriers and develop actions to addressing the degree-awarding gender gap.	Teaching Committee Chair with support from AA	July 2023 to October 2024	Reduce the degree-awarding gender gap of First-class degrees at BA by 25% (target gap: at most 12 percentage points). <i>Over 2017-2022: BA (Firsts): average gap of 16 percentage points.</i>
7.2	Build on institutional recommendations to reduce degree-awarding gaps.	7.2.1 Implement recommendations of Awarding Review. 7.2.2 Implement recommendations from the University's Education Committee Taught Course Panel on improving awarding gaps in gender, race and disability. 7.2.3 Incorporate recommendations from the Mathematical Institute's Assessment Methods Review.		July 2023 to October 2025	Reduce the degree-awarding gender gap in MMath Distinctions by 15% (target gap: at most 24 percentage points). <i>Over 2020-2022: MMath (Distinction): average gap of 28 percentage points.</i> Reduce the degree-awarding gender gap in MSc Distinctions by 15% (target gap: at most 22 percentage points).

No.	Action	Activities and Outputs	Responsibility	Timeframe	Success Measure
					Over 2017-2022: MSc (Distinction): average gap of 26 percentage points.

## Annex 1: RAG rated 2017 Department of Statistics Action Plan

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
<b>1. FUTURE PLANS OF THE SELF ASSESSMENT TEAM</b>							
<b>AP1</b>	Give Equality, Diversity and Inclusion Committee (EDI), formerly GPSG, sufficient time to review the AS action plan, analyse survey results and train committee members.	The Committee sits at the centre of the formal governance structure of the Department. Its remit is to take forward initiatives in relation to the principles of the LMS Good Practice Scheme, as well as the Athena SWAN charter, and to promote collaboration and sharing of good practice with other Departments.	<b>1.1:</b> Regularly monitor and review action plan and thoroughly analyse staff and student survey results.	Termly review of action plan; annual review of survey results/ EDI Committee	GPSG (Good Practice Steering Group) was renamed the Equality & Diversity Committee in 2019 to better reflect its work and then again in 2021 to the Equality, Diversity, and Inclusion Committee.	<b>AIM:</b> More continuity needed in engaging with Athena SWAN action plan and annual analysis of survey results. Greater impact resulting from regular reviews.  <b>ACHIEVED:</b> Improved governance and annual action plan review.	<ul style="list-style-type: none"> <li>Action Plan reviewed annually.</li> <li>Athena Swan added as a standing item on the EDI Committee's Agenda from October 2018.</li> <li>Guests invited regularly to EDI Committee including the University's Race Equality Officer and Divisional Athena Swan Facilitator.</li> <li>October 2019, HOD approved incorporation of ED&amp;I training into DC's training programme. Training has included talks from the University's Harassment Officer; the Head of the Disability Advisory Service; The Africa Oxford Initiative; LGBT+ History Month and Allyship.</li> </ul>
	Facilitate sharing of best practice from across the university and elsewhere.		<b>1.2:</b> Ensure consistent input from EDU and regular training & development opportunities for the committee. Invite guests from other Departments to share good practice. Training or guest speaker at EDI Committee, twice per year.	Termly/ EDI Chair		<b>AIM:</b> All members of EDI Committee to have greater understanding of EDI issues and how to share good practice within the Department.  <b>ACHIEVED:</b> Regular training programme embedded in committee calendar.	



Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
<b>AP2</b>	Consult with staff and students on a more frequent basis in order to regularly review and revise the AS action plan and allow for more consistent data. (Especially given that postdocs and graduate students are usually only with the Department for at most 3–4 years.)	In a rapidly evolving environment, more frequent surveys would help us to better monitor impact and quickly identify areas where continued support and improvement are needed.  Between 2014-2017, the average response rate to staff surveys was 71%, and to student surveys 51%.	Run staff and student surveys annually in order to monitor how our Athena SWAN actions are impacting the Department and flag up any concerns that need addressing.	Run surveys in Trinity Term each year; review results at following EDI Committee meeting/ EDI Committee		<b>AIM:</b> Increased understanding of areas in which further support is needed and areas where progress has been made, which will feed into the action plan review. Maintain response rate on staff surveys at 70% and increase response rate on student surveys to 60%.  <b>ACHIEVED:</b> Staff Survey: 70% average response rate between 2018-2022. Student survey: average 42% response rate between 2018-2022	<ul style="list-style-type: none"> <li>• Summary of staff and student surveys presented at the annual Department Away Day including a discussion about 'Creating a Culture of Care'. Actions resulting from the analysis of staff and student surveys have included:</li> <li>• Reminders that PDRs are due.</li> <li>• All reading groups are now advertised to the whole Department.</li> <li>• DPhil teaching allocations are circulated to make the process more transparent.</li> <li>• Alumni profiles added to our website.</li> <li>• Promotion of mentor scheme.</li> </ul>
<b>AP3</b>	Improve transparency in the Department.	In 2017, 21% (13% F, 8% M) of staff and 6% of students disagree that information and knowledge is shared openly in the Department. 15% (14% F, 4% M) of staff and	<b>3.1:</b> Summary of staff and research student survey results to be put on Department intranet, showing actions to be taken and subsequent results of those actions.	January 2018 in the first instance; end of Trinity Term annually thereafter/ EDI Committee	Adjustment: Additional action, 3.2, added following appointment of Department EDI Fellow in 2020.	<b>AIM:</b> Halve the proportion of staff and students disagreeing with the transparency of knowledge and decision-making in the Department.	<ul style="list-style-type: none"> <li>• Summary of Staff and Student surveys presented at annual Dept. Away Day.</li> <li>• October 2020: Open business DC meetings now open to staff and all PGR students.</li> </ul>

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
		15% (8% F, 14% M) of students disagreed that management and decision-making processes were clear and transparent.  In our 2017 PGR student survey, 46% (50% F, 42% M) of respondents were not aware of the rules for suspension of status.				<b>ACHIEVED:</b> In the 2022 survey, 7% (9% F, 5% M) of staff and 3% of students disagreed that information and knowledge is shared openly in the Department. 7% (9% F, 5% M) of staff and 5% (10% F, 4% M) of students disagreed that management and decision-making processes are clear and transparent.	
			<b>3.2:</b> EDI Fellow to give short update at start of Dept Committee Meetings on EDI work in Department to inform Department of wider EDI work taking place across the MPLS Division.	From 2022, give twice termly updates at DC meetings / EDI Fellow	Added as a new action in 2021.  Revised timescale to 2022 due to disruption of COVID-19.	<b>AIM:</b> Greater awareness of EDI work in Department and across the MPLS Division.  <b>ACHIEVED:</b> In the 2022 culture survey, no staff disagreed that the Department leadership actively supports gender equality, and the Department is committed to achieving gender balance in leadership positions.	

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			<p><b>3.3</b> Continue "12 Tips for New DPhil Students" series, producing one new information sheet annually covering different stages of graduate study (e.g. Transfer of Status, internships, etc).</p> <p>Continue to review and update "12 Tips for New DPhil Students".</p>	Annual/ EDI Committee & DPhil EDI Rep		<p><b>AIM:</b> Decrease the proportion of those saying they are not aware of the rules for suspension of status to 30% or lower.</p> <p><b>ACHIEVED:</b> 2022 PGR student survey reported 28% (40% F, 25% M) of all respondents were not aware of rules for suspension of status.</p>	<ul style="list-style-type: none"> <li>Two further information sheets produced in 2019 and 2020 - '10 Tips for Internships' and '10 Tips for Transfer of Status'.</li> <li>Example Transfer of Status thesis and Confirmation of Status outline provided by former students available.</li> </ul>
<b>2. TAUGHT STUDENTS</b>							
<b>AP4</b>	Improve the gender balance of the undergraduate Mathematics and Statistics course.	<p>In 2017, 30.6% of our undergraduate students were female (HESA average for Mathematical Sciences 37%).</p> <p>In 2016-17, 23% of women on our courses took Machine Learning modules.</p>	<b>4.1:</b> Run a female-only Statistics Taster Day for year 12 students.	2018/ Outreach Officer		<p><b>AIM:</b> % of female students on undergraduate course at HESA benchmark.</p> <p><b>ACHIEVED:</b> In 2022, 42% of our undergraduate population is female (HESA average 37%)</p>	<ul style="list-style-type: none"> <li>Sought advice from Prof. Sir Adrian Smith.</li> <li>Full programme of outreach work in collaboration with Mathematical Institute from 2017-2021.</li> <li>Digital Open Day ran with Mathematical Institute in 2020.</li> <li>Following Outreach Review in 2021 decision taken to support Mathematical Institute outreach programme but discontinue Statistics-</li> </ul>
			<b>4.2:</b> Investigate, and if feasible, run a Digital Undergraduate Open Day.	September 2021 and ongoing/ Outreach Officer			
			<b>4.3:</b> Seek advice on how to be most effective in school outreach.	2018/HOD			
			<b>4.4</b> Review effectiveness of outreach programme.	2021/Schools Liaison Officer			

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			4.5: Support outreach work done in the Mathematical Institute.	2022/Schools Liaison Officer	New action following outreach review in 2021.		specific work to free up resource.
			4.6 Run an annual diversity event promoting research areas in which female students are underrepresented.	June 2022/	Adjustment: Data to be obtained for analysis to determine whether there are any other research areas with underrepresentation – data to include gender and race.	<b>AIM:</b> Increase the proportion of women taking machine learning modules to 30%.  <b>ACHIEVED:</b> In 2022-23, 45% of women took machine learning modules.	<ul style="list-style-type: none"> <li>• May 2017: first Diversity event run with two international female speakers.</li> <li>• 2021: Online Diversity Event with Silvia Chiappa, DeepMind.</li> <li>• 2022: In person Diversity Event 'Oxford Women in Machine Learning'.</li> </ul>
AP5	Reduce gender attainment gap in undergraduate (UG) degree classification.	<p>On average, 20% of women achieve a First compared with 32% of men.</p> <p>Investigation of degrees in MPLS showed a gender effect in the years when the duration of final year exams was reduced to 1½ hours.</p>	5.1: Increase duration time of exams to 1¾ hours to give students more thinking time.	May 2017/ Director of Studies		<b>AIM:</b> Make progress toward no significant difference of first-class degrees amongst male and female students.  <b>ACHIEVED:</b> In 2022, significant attainment differences were still present by gender at both end points.	<ul style="list-style-type: none"> <li>• 2017-18 Increased duration time of exams. No significant effect shown</li> <li>• Working Group set up in May 2019 with members of Statistics and Maths Departments. This was put on hold during the pandemic.</li> </ul> <p><i>Linked to Objective 7 in New Action Plan</i></p>
			5.2: Monitor effects of increasing duration of 3rd and 4th year exams on results.	Annually/ Director of Studies			
			5.3: Working group to examine issues affecting attainment at UG level.	Start in 2018/ Director of Studies			

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
AP6	Maintain the gender balance on the MSc course following the change in syllabus from October 2017.	46% of students on the MSc in Applied Statistics were women. In 2017 the course changed to MSc in Statistical Science.	6.1 Annually monitor MSc admissions.	June 2020/ MSc Course Director	Adjustment: In 2021 to include monitoring the impact on race in addition to gender.	<b>AIM:</b> Maintain the proportion of women on the MSc course at 46% or above.  <b>ACHIEVED:</b> In 2022-23, women made up 44% of the course.	<ul style="list-style-type: none"> <li>• MSc admissions data reviewed annually by Teaching Committee and EDIC</li> <li>• Ensuring diverse role models reflected on new website</li> <li>• New admissions process set up in 2021, to separate male and female applications for ranking before shortlisting.</li> </ul>
			6.2 Promote gender and race balance for new MSc courses by ensuring good use of diverse role models on website and publicity materials.	March 2021/ MSc Course Director	Adjustment: Wording of action broadened to 'diverse role models' rather than 'female role models'.		
			6.3 Follow up pilot project to award bursaries to female MSc students to assess effectiveness.	2020/ MSc Course Director			
		Drop in proportion of women on the MSc to 30% by 2021.	6.4 Pilot MSc admissions process to separate ranking of male and female candidates before shortlisting.	2021-22/ MSc Course Director	Accelerated: New action added 2021 following results from monitoring MSc admissions data (see Action 9.1)		
		Between 2017-2020, the Department received on average 57 applications from the EU.	6.5 Investigate any changes that appear to be associated with Brexit on the demographics of our applicants.	2021, annually/ MSc Course Director	Accelerated: New action added in 2021 to monitor the impact of Brexit on applications.		

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
AP7	Reduce gender attainment gap in MSc degree classification	On average from 2014-2017, 36% of women and 49% of men were awarded an MSc Distinction	7.1 Investigate gender differences in performance of MSc students on components of course with different forms of assessment, in particular the dissertation.	May 2018/ Director of Studies		<b>AIM:</b> No difference in proportion of distinctions between male and female students.  <b>ACHIEVED:</b> Over the period 2017-2022, 40% of women achieved a Distinction in our MSc, compared with 65% of men.	<ul style="list-style-type: none"> <li>• Question added to annual end of year MSc survey to understand what information students would have found helpful before starting the course.</li> <li>• EDIC now receives copy of annual MSc Examiners Report and reviews additional data for gender and race.</li> </ul> <i>Linked to Objective 7 in NAP.</i>
			7.2 Follow-up with all MSc students to see whether, after having received the results of their dissertation, they would have found any additional information useful to know before starting. Attention to be paid to any gender differences.	November 2021/MSc Course Director	Adjustment: Attention to be paid to any differences between student groups (including gender but not limited to this).		
			7.3 Annual assessment of data and feedback to EDI Committee to monitor progress in identifying areas of focus related to the reduction of gender gap.	Annually/ MSc Course Director	Accelerated: New action added.		

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
3. RESEARCH STUDENTS							
AP8	Improve gender balance of DPhil programme.	In 2016, nationally 31% of PGR students in Mathematical Sciences were women (HESA).	8.1: Annually invite MSc students interested in research degrees to an informal meeting in their first term, with current research students. Gather data by gender of those who attend.	Annually/ Director of Graduate Studies		AIM: Increase proportion of PGR female population to HESA benchmark.  ACHIEVED: Between 2017-2022, our PGR student population remained at an average of 26%, compared with 2019-2021 HESA benchmark of 29%.	<ul style="list-style-type: none"><li>• Ran annual informal meetings for all MSc students, to find out more about research degrees</li><li>• 2018: First Graduate Open Day held.</li><li>• Recommendation for all Graduate students each to have their own webpage on the Department's website approved.</li><li>• 2019: Buddy system set up.</li><li>• 2020: Online Graduate Open Day held.</li><li>• 2020: Support from current PGR students to offer holders during pandemic.</li><li>• 2020: Offer holders invited to join Research Group meetings during pandemic.</li></ul>
		In our Department in 2016, 46% of students on our Masters course were women but only 25% of DPhil students were.	8.2: Monitor number of successful applications from MSc to research degree.				
		26% of applications to our graduate research programmes in 2016 were women, compared with 45% in our MSc course.	8.3: Proactively encourage female students to consider research degrees by holding graduate open days and implementing recommendations of the graduate research working group.	Annually/ Director of Graduate Studies			
		Between 2013/14-2016/17, 58% of women accepted their offers of graduate					

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
		study, compared with 70% of men.	<b>8.5:</b> Institute DPhil 'buddy system' for applicants with offers for graduate study.	January 2018 / Director of Graduate Studies	Adjustment: This action was moved from former AP12 as the objective was more appropriate.	<p><b>AIM:</b> Increase the proportion of women who take up their offer to 70% to match the proportion of men.</p> <p><b>ACHIEVED:</b> On average, 70% of women have taken up their offers between 2018-2022.</p>	
			<b>8.6:</b> Update website to reflecting diversity in photographs and text.	2019-20/ Director of Graduate Studies		<p><b>AIM:</b> Increase proportion of women applying for graduate research to 30%. Two summer internships by 2021.</p> <p><b>ACHIEVED:</b> Between 2017-2022, 24% of applicants for graduate study were from women. Five summer internships (3F:2M) in 2022, as well as participation in UNIQ+ internships.</p>	<ul style="list-style-type: none"> <li>• 2019: UNIQ+ Summer School initiated by 4 academics in MPLS, 2 of whom are in the Department of Statistics, to give research experience for undergraduates from areas and groups who traditionally have low-progression into postgraduate study.</li> <li>• 2020: UNIQ+ embedded into the University's wider</li> </ul>



Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			<b>8.7:</b> Give larger numbers of undergraduates an opportunity to experience short collaborative research. Set up working group to prepare an undergraduate summer school proposal, taking into consideration funding and workload allocation, which will then be approved by Department Committee.	Report by Dec 2018/ EDI Chair	Adjustment: We will now monitor the UNIQ+ Summer School data annually to review the number of undergraduate students applying for research degrees.		graduate initiatives.  • 2021: Revised Summer Internship programme set up with 6 funded places.  • 2022: Department of Statistics successfully submitted a Memorandum of Justification for positive action to allow at least 50% female places the Summer Internship Programme, subject to an academic quality threshold.
			<b>8.8:</b> Instigate and advertise two new 6–8-week summer internships, funded by the Department, for undergraduate students in their third year to give them experience of graduate research.	2021/ Director of Studies and Graduate Research Committee	Adjustment: Six summer internship places now offered.		• Information about maternity leave added to Department website.  • 2022: Upgrade of Department's website. Consultation with web developers included meeting with members of the EDIC.
			<b>8.9:</b> Promote maternity leave, family leave and other support for families and carers for	Ongoing / Director of Graduate Studies			

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			students by including information on the website and in the graduate research student induction.				
<b>4. ACADEMIC PIPELINE</b>							
<b>AP9</b>	Obtain better data on the reasons why academic staff leave the Department, and gather feedback for what the Department should improve.		Introduce exit interviews to help understand attrition of female staff at transition from DL/Postdoc to AP.	Ongoing/ Personnel Administrator		<b>AIM:</b> Target of 75% take-up  <b>ACHIEVED:</b> 66-100% take up between 2019 and 2021.	<ul style="list-style-type: none"> <li>• All postdocs and administrative staff are offered exit interviews and reasons monitored and logged anonymously. Academics managed by MPLS Division.</li> </ul>
<b>AP10</b>	Increase recruitment rates for women to all academic positions	In 2016, 23% of our academic staff were women and we had no women in Associate Professor positions.  18% of those who applied to AP positions in 2013-2016 were women.	<b>10.1:</b> All members of recruitment panels to have completed the recruitment training course.	Autumn 2021/ Personnel Administrator	Timescale extended from 2018 to 2021	<b>AIM:</b> Average of at least 25% of applicants to AP positions to be female.  <b>ACHIEVED:</b> 12% of applicants to AP positions between 2017-2022 were female (3 posts).	<ul style="list-style-type: none"> <li>• 2017 &amp; 2018: Ran two <i>Unconscious Bias</i> training sessions. A follow up survey showed 77% agreed that their understanding of implicit bias had improved.</li> <li>• 2018: Chairs of recruitment panels have all completed the recruitment training.</li> <li>• 2018: Search Committees</li> </ul>
			<b>10.2:</b> Chairs of Recruitment Panels for research positions to draw up lists of male and female candidates who may be approached to see whether they are interested in applying.	From January 2018/ Personnel Administrator and Recruitment Panel Chairs		<b>AIM:</b> Average of at least 25% of shortlisted candidates to all academic posts be	

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			<b>10.3:</b> Run Unconscious Bias training for the Department as part of the MPLS pilot scheme.	From 2017/ Personnel Administrator		female.  <b>ACHIEVED:</b> Between 2017-2022, 17% of those applying and 12% of those shortlisted for academic positions (10 posts) were female.	set up for Associate Professor posts.  • All recruitment panels have at least one male and one female member.  <i>Linked to Objective 6 in NAP.</i>
			<b>10.4:</b> Carefully review the effect that phasing out fixed-term Departmental Lecturer positions has on the gender balance in junior academic positions, ensuring this does not have the effect of disadvantaging women.	Review in October 2020/ EDI Committee	Adjustment: Reviewed action, the recruitment of two new DL's in Summer 2021 to address need arising during pandemic.	<b>AIM:</b> At least 30% of all academic staff to be women.  <b>ACHIEVED:</b> In 2022, 32% of all academic staff were women.	• 2018: Search Committees set up for Associate Professor positions where separate lists of male and female names were drawn up.  • 2019: Introduction of Florence Nightingale Bicentenary Fellow positions.
			<b>10.5:</b> Introduce search committees for Associate Professor positions.  Administrator to ensure that Search Committees are put together.	March 2018/ Personnel Administrator & Search Committees			• 2020: Reviewed list of sites where current vacancies are advertised to help increase our reach.  • 2020: Recruitment of female <i>Florence Nightingale Bicentenary Fellow</i> resulted from an

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			<b>10.6:</b> Provide funded fellowships as a springboard into an independent academic career.  Introduce Florence Nightingale Bicentenary Fellows.	October 2019/ HOD	New action in 2019	<b>AIM:</b> 30% of FNBF recruited are women.  <b>ACHIEVED:</b> Only 1/9 (11%) fellows from 2019-2023 were women.	intentional invitation to give a seminar in the Department with a view to future recruitment.
<b>5. STAFF</b>							
<b>AP11</b>	Introduce a mandatory objective-linked probation process for research staff.	All line managers are aware that objectives need to be agreed with their new starter.	Record and monitor the probationary process for all new and existing staff, including uptake and satisfaction, and ensure that objectives are completed.	Ongoing/ Personnel Administrator & Line Managers	Maintain	<b>AIM:</b> All line managers will set and review probationary objectives.  <b>ACHIEVED:</b> In 2022, 100% of new staff have probation forms recorded.	<ul style="list-style-type: none"> <li>• Probation process for all new and existing staff is recorded and monitored. Objectives are checked to make sure they have been completed.</li> </ul>
<b>AP12</b>	Ensure induction process meets needs of new staff.	A review of the induction process in 2016 showed that 77% of staff found the induction useful.	Monitor the effectiveness of the revised induction process and identify areas for improvement at annual reviews of staff survey results.	Ongoing/ Personnel Administrator	Maintain	<b>AIM:</b> Increase proportion of people finding induction useful from 77% to 80%.  <b>ACHIEVED:</b> In the 2022 Staff Survey, 92% found the Department induction helpful, and 86% of staff found the Team induction helpful.	<ul style="list-style-type: none"> <li>• 2021: Induction process reviewed and updated.</li> </ul>

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
AP13	Ensure development needs of all staff are met by providing training for managers and enabling awareness of, and ability to take up, opportunities.	In 2017, 26% (27%F, 27%M, 33% PNTS) of staff disagreed that <i>you are clear about the development opportunities available to you</i> .  9% (13% F, 5% M) of disagreed that <i>you feel comfortable discussing your training and development needs with your line manager/supervisor</i> .	13.1 Promote management training courses to line managers.	Annual/ Personnel Administrator		<b>AIM:</b> Reduce the proportion of staff disagreeing that <i>you are clear about the development opportunities available to you</i> to less than 15%. Maintain the proportion of staff that disagree that <i>you feel comfortable discussing your training and development needs with your line manager/supervisor</i> at less than 10%.	<ul style="list-style-type: none"> <li>• 2018: List of mandatory courses for staff now provided in the induction pack.</li> <li>• 2021: All new managers are now required to complete the 'Managing People' on-line course.</li> </ul>
			13.2 Reinforce to managers the requirement to discuss training needs in the PDR process.	Annual/ Personnel Administrator			
			13.3: Organise annual support staff Away Day and hold weekly support staff team meetings.	Annual/ Head of Administration and Finance		<b>ACHIEVED:</b> In 2022, 14% (9% F, 17% M) disagreed that <i>you are clear about the development opportunities available to you</i> .  In 2022, 7% (0% F, 13% M) disagreed that <i>you feel comfortable discussing your training and development needs with your line manager/supervisor</i> .	<ul style="list-style-type: none"> <li>• 2017: First PSS Away Day held with opportunity for training and to discuss professional development. Staff changes have meant this did not happen again until 2022.</li> <li>• Weekly online Support Staff Team meetings held since 2020.</li> </ul>
			13.4: Personnel Administrator to champion new range of professional qualifications, and the Springboard programme if appropriate.	Ongoing/ Personnel Administrator			

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			<b>13.5</b> Promote <i>Ad Feminam</i> to female academics. Promote <i>Springboard</i> and <i>Navigators</i> to ECRs. Send annual email to relevant academics and monitor take-up.	Annual/ Personnel Administrator	Adjustment: The <i>Oxford Personal Development Programme</i> has now replaced the <i>Springboard</i> Programme and is run for mixed gender groups and women.		<ul style="list-style-type: none"> <li>• 2021: HR Administrator promoted <i>Oxford Women's Development Programme</i> to DPhil students and Postdocs.</li> <li>• 2021: HR Administrator promoted <i>Oxford Personal Development Programme</i> to all staff.</li> </ul>
<b>AP14</b>	<p>Increase postdoctoral engagement with careers events.</p> <p>Maintain postdoctoral satisfaction with career options.</p>	<p>In 2015, we set up a new annual Careers-orientated event to ensure that our ECRs/Postdocs and PGRs were fully informed when making career choices.</p> <p>In 2017, 69% of PDRAs were clear about the career opportunities available to them.</p>	Survey postdocs to understand how the annual Careers Event can be enhanced to better address their requirements. Monitor postdoc numbers going forward.	June 2021/ ECR Champion	It was decided that surveys, particularly during the pandemic, are not always the best way to engage with people.	<p><b>AIM:</b> Maintain satisfaction about career opportunities.</p> <p><b>ACHIEVED:</b> In the 2022 Staff Survey, 87% of research staff were clear about the career opportunities available to them.</p>	<ul style="list-style-type: none"> <li>• 2022: MPLS Researcher &amp; Development Manager invited to give presentation at Departmental Committee Meeting on '<i>The New Concordat for Research Staff</i>' with discussion about how the Department can start to fulfil the concordat.</li> </ul>

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
AP15	Improve integration of postdocs into the Department.	2017 staff survey results showed 63% of postdocs felt they were integrated into the Department.	15.1: Reinstate and support the Network to provide support and dissemination of useful information for ECRs, including visiting speakers to give short informal talks on career development opportunities, networking, and feedback from ECR representatives on Department Committee, Divisional training opportunities and handling workload.	From April 2021 and ongoing/ ECR Champion & The Network Organisers.	Adjustment: Timescale revised following impact of pandemic and responsibility following the appointment of our ECR Champion.	<b>AIM:</b> Increase the proportion of research staff feeling integrated into the Department to 75% by 2019.  <b>ACHIEVED:</b> 2022: 86% of research staff said they feel integrated into the Department.	<ul style="list-style-type: none"> <li>• 2018: <i>The Network</i> was reinstated and has continued to run.</li> <li>• 2020: Appointment of <i>ECR Champion</i>.</li> <li>• 2020: <i>ECR Champion</i> gave presentation at <i>The Network</i> about her role and its aims.</li> <li>• 2020: WhatsApp group set up for <i>The Network</i> to provide sense of integration during lockdown</li> <li>• 2021: Celebrated 'Postdoc Appreciation Week' with collage of all our postdocs and posted on social media.</li> <li>• 'Postdoc Appreciation Week' added to list of annual awareness days to celebrate in Department.</li> <li>• All new postdocs have a welcome meeting with the ECR Champion.</li> </ul>
			15.2: Agree an initial 12-month tenure for organisers of The Network with a view to extending the tenure if approved by the <i>ECR Champion</i> . Ensure they have at least 12 months remaining on their contract. Ensure organisers are replaced before tenure finishes.	Annual review/ ECR Champion			

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
			<b>15.3:</b> Appoint an <i>ECR Champion</i> to advocate for postdoctoral researchers.	2020/ HOD	New action in 2020		
<b>AP16</b>	Ensure that graduate students are aware of training available from MPLS including Fridays@4 run by the Mathematical Institute.	In 2017, 17% (15% F, 21% M) of students disagreed that <i>I am clear about the training and development opportunities available to me.</i>	Actively promote graduate training courses, run by Division, at induction and monitor take-up of training.	AA		<p><b>AIM:</b> Reduce the proportion of students disagreeing that <i>I am clear about the training and development opportunities available to me</i> to less than 10%.</p> <p><b>ACHIEVED:</b> In 2022, 28% (40% F, 25% M) of students disagreed that <i>I am clear about the training and development opportunities available to me.</i></p>	<ul style="list-style-type: none"> <li>• 2020: MPLS Researcher Training &amp; Development Manager invited to speak about mentoring and personal development training at online Careers Event.</li> <li>• 2022: Introduction of <i>Departmental Weekly Bulletin</i> to help disseminate training and job opportunities.</li> </ul>
<b>AP17</b>	Provide additional support for research and academic staff applying for funding.	In 2017, 43% (67% F, 24% M) of staff reported they would <i>value support or training in applying for research grants.</i>	Organise in-house workshops for research and academic staff focusing on various points of the grant application process, <i>e.g.</i> , finding funding, writing a strong justification of resources, <i>etc.</i>	2018/ Research Facilitator		<p><b>AIM:</b> Reduction in the proportion of female staff requiring support in applying for research grants to less than 30%.</p> <p><b>ACHIEVED:</b> In the 2022 Staff Survey, 40% (20% F, 47% M) of staff said they would value support and training in applying for research grants.</p>	<ul style="list-style-type: none"> <li>• 2019: Informal discussion led by our Research Facilitator focusing on grant and fellowship opportunities.</li> <li>• The Department's Research Facilitator annually invited to present at The Network and Careers Events.</li> </ul>



Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
AP18	Improve internal collaboration and networking.	Anecdotal evidence that research staff and students sometimes feel siloed in their work/groups.	Organise annual <i>Department of Statistics Research Collaboration</i> event to highlight the research being undertaken in the Department and invite academic staff and research staff from other Departments to discuss opportunities for collaboration.	2018/ Research Facilitator		<p><b>AIM:</b> To deliver an annual event, with positive feedback from academic staff via a post-event questionnaire.</p> <p><b>ACHIEVED:</b> Annual events took place from 2018-2022.</p>	<ul style="list-style-type: none"> <li>• 2018: Held first <i>Research Collaboration Day</i>.</li> <li>• <i>Research Collaboration Day</i> now held annually and is open to all staff and postgraduate students.</li> <li>• 2022: 31% reported in post-event survey reported that previous <i>Research Collaboration Day</i> events have resulted in new collaboration opportunities.</li> </ul>
AP19	Support staff returning to work from leave (including parental and family).		Introduce an informal end of leave 'induction' to assist in transition back to work.	Ongoing/ Personnel Administrator	Adjusted: This has been changed from maternity only.	<p><b>AIM:</b> End-of-leave induction in place.</p> <p><b>ACHIEVED:</b> Too few cases to measure success.</p>	
<b>6. WORK ENVIRONMENT</b>							
AP20	Maintain inclusivity for all members of the Department, by creating a culture that is committed to equality, and values diversity.	In 2017, 81% (87% F, 75% M) of staff and 94% (100% F, 89% M) of students said that <i>I feel included in the Department's social/networking activities</i> .	<b>20.1</b> Run one training course at our annual away day to promote good practice and equality and diversity.	Annual in Michaelmas Term/ EDI Chair		<p><b>AIM:</b> Maintain the proportion of staff and students who say <i>I feel included in the Department's social/networking activities</i> at or above 80%.</p> <p><b>ACHIEVED:</b> In the 2022 surveys, 90% (100% F,</p>	<ul style="list-style-type: none"> <li>• Training has included presentations from the University's Race Equality Officer, Harassment Officer and Head of the Disability Advisory Service and Autism Spectrum Disorders (ASD) Specialist; on mental health, LGBT+ History Month, allyship</li> </ul>

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
						86% M) of staff and 85% (80% F, 86% M) of students agreed that <i>I feel included in the Department's social/networking activities.</i>	and The Africa Oxford Initiative.
			<b>20.2:</b> Make the family-friendly <i>Department of Statistics Summer Party</i> an annual event.	Annual: Every Trinity Term/ Events Officer			<ul style="list-style-type: none"> <li>• 2017: First family-friendly <i>Department of Statistics Summer Party</i>. This now an annual event.</li> </ul>
<b>7. OUTREACH</b>							
<b>AP21</b>	Increase visibility of diversity in the Department.	The Department has very little physical imagery.	Introduce prominent displays featuring diverse role models, at all stages of their career, around the building.	Set up working party and hold meeting before end of Hilary Term 2018/ EDI Committee	Following a successful online exhibition in 2020, of Florence Nightingale's correspondence with Jowett the impact of the pandemic delayed any further work.	<b>AIM:</b> To have a number of displays around the Department that prominently feature female statisticians.  <b>ACHIEVED:</b> No progress on physical environment, but digital presence updated and improved.	<ul style="list-style-type: none"> <li>• 2020 online display of a selection of current women in Statistics, as part of the <i>Florence Nightingale Bicentenary</i>.</li> <li>• Redeveloped website with more diverse imagery.</li> </ul>

Ref	Objective	Rationale/ Evidence/ Baseline Data	Action	Timescale/ Responsibility	Changes to Action	Success Measure	Progress Record
AP22	Increase engagement with public	The Department currently undertakes very little Public Engagement with Research activity.	Hold a 'super event' in 2020 to celebrate the Bicentenary of Florence Nightingale's birth to include children from primary up to secondary school, to celebrate female achievement in science.	2020/ EDI Committee, Events Officer & Outreach Officer		<p><b>AIM:</b> Positive feedback from attendees in post-event survey.</p> <p><b>ACHIEVED:</b> Positive feedback from attendees received. and event well received.</p>	<ul style="list-style-type: none"> <li>• 2020: Wider audience of 300 people attended the 'super event', including schools, as the event went online due to the pandemic.</li> <li>• 57 people (25 F, 32 M) completed the post-event survey. 98% found the event valuable.</li> </ul>

## Appendix 2: Data tables

We present the mandatory data tables and additional datasets here. Note: where gender is unknown, the percentage of females is calculated across the total of known genders.

### a. Students at undergraduate level

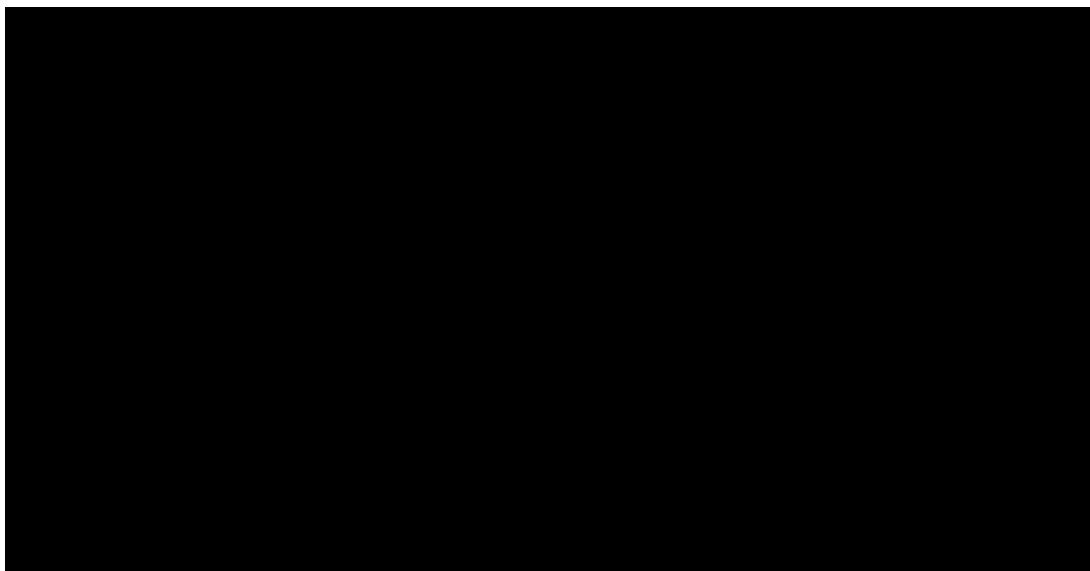


Figure 28: Undergraduate population by gender, 2017-2022.

HESA Similar institution benchmark for *Mathematics and Statistics* (2019-2022): Imperial College London 25%, Cambridge 17%.

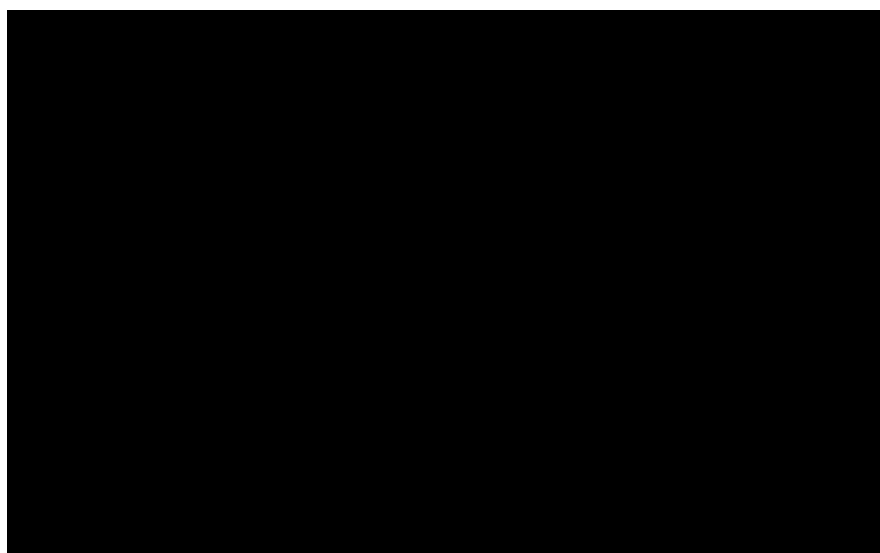
Table 8: Undergraduate student population by gender, 2017 – 2022.

Entry Year	Female	Male	Total	% Female	HESA %F Benchmark
2017-18	26	59	85	31%	37%
2018-19	34	67	101	34%	
2019-20	45	72	117	38%	
2020-21	50	65	115	43%	
2021-22	48	68	116	41%	
2022-23	51	70	121	42%	
Overall	203	331	534	38%	

**b. Students at postgraduate taught level**

*Table 9: Applications, offers and acceptances for the MSc in Statistical Science by gender, 2017-2022.*

	Applications				Offers			
Entry Year	Female	Male	Total	% F	Female	Male	Total	% F
<b>2017-18</b>	167	282	449	33%	17	54	71	24%
<b>2018-19</b>	197	272	469	42%	17	42	59	29%
<b>2019-20</b>	200	326	526	38%	18	50	68	26%
<b>2020-21</b>	245	343	588	42%	39	75	114	34%
<b>2021-22</b>	281	407	688	41%	27	56	83	33%
<b>2022-23</b>	212	339	551	38%	38	46	84	45%
<b>2023-24</b>	244	340	584	42%	49	60	109	45%
<b>Overall</b>	1302	1969	3271	<b>40%</b>	156	323	479	<b>33%</b>



*Figure 29: MSc student population by gender, 2017 – 2022.*

HESA Similar institution benchmark for Statistics (2019-2022): Imperial College London 38%; HESA Similar institution benchmark for Mathematics and Statistics (2019-2022): Imperial College London 35%, Cambridge 18%.

Table 10: MSc student population by gender, 2017 – 2022.

Entry Year	Female	Male	Total	% F	HESA %F Benchmark
2017-18	12	31	43	28%	42%
2018-19	15	20	35	43%	
2019-20	9	27	36	25%	
2020-21	25	40	65	39%	
2021-22	21	35	56	38%	
2022-23	20	25	45	44%	
Overall	102	178	280	36%	

## **Appendix 3: Glossary**

AA — Academic Administrator

AP — Associate Professor

APIR — Associate Professor Inclusive Recruitment

ASD — Autism Spectrum Disorders

BME — Black and Minority Ethnic

DC — Departmental Committee

DDGS — Deputy Director of Graduate Studies

DGS — Director of Graduate Studies

DOS — Director of Studies

ECR — Early Career Researcher

EEPR — External Engagement and Project Manager

EDIC — Equality, Diversity, and Inclusion Committee

EIA — Equality Impact Assessment

FNBF — Florence Nightingale Bicentenary Fellow

GLG – Graduate Liaison Group

GPC — General Purposes Committee

GRC – Graduate Research Committee

HAF — Head of Administration and Finance

HESA — Higher Education Statistics Agency

HOD — Head of Department

HR — Human Resources

HRFA — Human Resources and Finance Administrator

HT — Hilary Term (January to Easter)

LV — Long Vacation (July to September)

MAT — Mathematics Admissions Test

MPLS — Mathematical, Physical and Life Sciences

MT — Michaelmas Term (October to December)

NAP — New Action Plan

PAP — Previous Action Plan

PDR — Professional Development Review

PGR — Postgraduate Research

PNTS — Prefer Not To Say

PSS — Professional Support Staff

RAG — Red, Amber, Green

REF — Research Excellence Framework

ROD — Recognition of Distinction

RSC — Research Strategy Committee

ROD — Recognition of Distinction

SAT — Self-Assessment Team

SMART — Specific, Measurable, Achievable, Realistic, Time-bound

TT — Trinity Term (Easter to June)

UG — Undergraduate



## Appendix 4: 2023-2028 Department of Statistics Athena Swan Action Plan (Gantt chart)

No.	Action	2023		2024				2025				2026				2027				2028	
		LV	MT	HT	TT	LV	MT	HT	TT	LV	MT	HT	TT	LV	MT	HT	TT	LV	MT	HT	TT
Objective 1: Maintain an inclusive environment for staff and students.																					
1.1	Support LGBT+ staff and students.																				
1.1.1	Expansion in optional use of pronouns on email signatures and web profiles.																				
1.1.2	Offer training courses on <i>Trans Awareness – The Basics</i> , and <i>Intersectional Allyship</i> , annually.																				
1.1.3	Celebrate LGBT+ History Month and Pride Month.																				
1.1.4	Offer Implicit Bias and Bystander training in Induction Week for new students																				
1.2	Improve the visibility of underrepresented groups in our physical and virtual spaces.																				
1.2.1	Commission of photography and artwork for our stairwells and communal spaces that reflects our diversity.																				
1.2.2	Annually update research posters in corridors and reflect diversity by encouraging students to include headshots of themselves.																				
1.2.3	Review of inclusivity of language and images used on website, with guidance produced for web editors.																				

1.3	Create an environment where students and postdocs feel included in Departmental life.																			
1.3.1	Improve induction for new students to highlight Departmental social and networking activities.																			
1.3.2	Enable and promote more social events for students and postdocs by ring-fencing funding for student-led activities in EDIC budget.																			
<b>Objective 2: Continue to address bullying and harassment</b>																				
2.1	Set clear standards of behaviour and increase awareness of implicit bias.																			
2.1.1	Clear communications about standards of behaviour at induction and throughout the year.																			
2.1.2	Introduce a standard calendar of training (including at induction) for all staff and students to increase awareness of implicit bias and to tackle bullying and harassment; review suitability annually.																			
2.2	Build confidence among staff and students in the reporting mechanism and the support in place for dealing with bullying and harassment.																			
2.1.3	Regularly communicate the mechanisms of reporting harassment and/or bullying.																			
2.1.4	Maintain number of Harassment Advisors.																			
2.1.5	Management/leadership training to equip them to deal with difficult situations																			
<b>Objective 3: Improve support of career development opportunities for staff and students</b>																				

3.1	Support training and development opportunities for students.																			
3.1.1	Advertise all training and development opportunities in the Departmental weekly bulletin.																			
3.1.2	Provide guidance and support to apply for and take part in training and development.																			
3.2	Improve feedback provided on career development as part of staff PDRs.																			
3.2.1	Review guidance and templates for PDRs to ensure they include career development.																			
3.2.2	Training for line managers on providing feedback around career development as part of PDRs.																			
3.3	Promote and support career development opportunities for staff.																			
3.3.1	Promote the University's Career's Club and Professional Services Together initiatives to PSS.																			
3.3.2	Promote opportunities for academic and research staff through the Departmental weekly bulletin.																			
3.3.3	Provide support and encouragement to engage with available opportunities.																			
<b>Objective 4: Reduce experience of unreasonable workload and work-related stress</b>																				
4.1	Equitable workload distribution among academic and research staff.																			
4.1.1	Annual PDRs considering individual responsibilities and workload.																			

4.1.2	Training for line managers on conducting effective PDRs, particularly for research staff.																			
4.1.3	Report on workload distribution in common areas of responsibility, including committee membership, teaching and supervision duties within the University.																			
4.1.4	Review and, if necessary, update which categories of students (particularly those affiliated to external CDTs) are expected to provide teaching assistance.																			
4.2	Improve communication around teaching duties of PGR students.																			
4.2.1	Review and improve communication of expected duties each year.																			
4.2.1	Produce annual summary report on teaching allocation for transparency.																			
4.3	Encourage culture change around workload.																			
4.3.1	Celebrate the flexibility of academic careers, and set realistic expectations and boundaries for ECRs and students at induction.																			
4.3.2	Building on the Values and Behaviours Framework for PSS, reward and recognise staff annually, and nominate students and staff for Divisional and University awards across a range of work including EDI.																			
4.3.3	Incorporate recommendations of University's review of reward and resourcing for EDI work.																			



5.1.2	Implement recommendations of the Menopause Pledge in line with Objective 4.4 of the University's Athena Swan action plan.																		
5.2	Ensure staff and students are able to take restorative breaks and are aware of support for carers.																		
5.2.1	Better promote additional annual leave scheme to all staff.																		
5.2.2	Better promote support available through "Work + Family Space" to all staff.																		
5.2.3	Improve ability of students to take adequate holidays by raising awareness with supervisors.																		
<b>Objective 6: Improve the gender balance of graduate research students, and academic and research staff</b>																			
6.1	Develop and improve our recruitment process for academic and researcher roles.																		
6.1.1	Incorporate recommendations of the University's Associate Professor Inclusive Recruitment (APIR) guidance.																		
6.1.2	Use the APIR guidance as best practice in applying similar inclusive guidelines to other academic and research grades, to address pipeline issues																		
6.1.3	Proactive candidate search and encouragement.																		
6.1.4	Compulsory Recruitment & Selection and Implicit Bias training for all recruitment panel members.																		
6.1.5	Annual reports on success in attracting mixed gender shortlists to RSC and GPC.																		

6.2	Provide effective support for progression of female and BME staff into senior academic roles.																			
6.2.1	Implement recommendations from University's Leadership Review.																			
6.2.2	Lobby the University on EDI issues through appropriate channels to improving contractual security for fixed-term researchers and eligibility for maternity leave.																			
6.2.3	Introduce a Carers' Support Fund, to provide support staff with caring responsibilities to attend conferences.																			
6.3	Improve external communications and advertising.																			
6.3.1	Investigate employing a part-time Communications Officer to implement a communications strategy focused on improving the Department's digital profile with a view to attracting a more diverse applicant pool at all levels.																			
6.3.2	Improve and increase advertising to attract more high-quality applicants, particularly from underrepresented groups, including by engaging social media experts.																			
6.3.3	Build a stronger digital presence to promote the Department to a wider audience.																			
6.3.4	Increase scholarship funding available to underrepresented groups through engagement with Development Office and improved external communications.																			
6.4	Provide opportunities for undergraduate women to experience graduate research.																			

6.4.1	Continue Summer Research Internships programme, including participation in UNIQ+.																			
6.5	Ensure equitable PGR admissions processes.																			
6.5.1	Implement gender-segregated shortlisting policy for PGR admissions.																			
6.5.2	Engage with the University's Selection Pilot and implement identified best practice.																			
6.6	Better understand and support onward careers of PGR students.																			
6.6.1	Annually monitor leaver destination data.																			
6.6.2	Identify areas where further career support may be required, and develop actions as appropriate.																			
<b>Objective 7: Reduce degree-awarding gender gap</b>																				
7.1	Understand the drivers of the degree-awarding gender gap for our courses.																			
7.1.1	Investigate and report on the potential factors affecting the degree-awarding gender gap, joint with Mathematical Institute, to understand the drivers.																			
7.1.2	Consult with students to identify barriers and develop actions to addressing the degree-awarding gender gap.																			
7.2	Build on institutional recommendations to reduce degree-awarding gaps.																			
7.2.1	Implement recommendations of Awarding Review.																			



7.2.2	Implement recommendations from the University's Education Committee Taught Course Panel on improving awarding gaps in gender, race and disability.																			
7.2.3	Incorporate recommendations from the Mathematical Institute's Assessment Methods Review.																			
<b>EDI Committee Annual Monitoring</b>																				
E1	Annual Reviews of Departmental Data:																			
	Staff-in-post data																			
	UG data																			
	MSc Data																			
	PGR Data																			
	Committee representation data																			
	Recruitment data																			
	Seminar Speakers																			
E2	Athena Swan Action Plan Review:																			
	Review of MT AS AP actions																			
	Review of HT AS AP actions																			
	Annual review of AS AP actions, and assessment of the AS AP, requiring updates from those responsible for each action.																			