TOWARDS A BETTER UNDERSTANDING OF ISSUES AFFECTING GRANT APPLICATIONS AND SUCCESS RATES BY FEMALE ACADEMICS

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INTRODUCTION

According to 2012/13 data from the Higher Education Statistics Authority[1], the gender profile of BBSRC's academic population[2] is approximately 33% female; 67% male. However, BBSRC data, published early in 2015[3] indicate that women submitted 21.1% of grant applications to BBSRC, and had a success rate of 25.8%. This compares to a success rate for men of 30.6%, and an overall BBSRC success rate of 29.9%.

In order to understand these data further, and to add some context to them, BBSRC has initiated a quantitative and qualitative research project, the key aim of which is to get a better understanding of institution practices that feed into the grant applicant and success rates for female researchers who are eligible to apply for BBSRC funding.

METHODOLOGY

Identification of Institutions

Eight higher education institutions (HEIs) were invited to participate in this work. The HEIs were chosen from BBSRC's top 30 funded institutions, since these were the HEIs where BBSRC's influence to change behaviours was considered strongest, due to established strategic and operational relationships between the institution and BBSRC. The HEIs identified had relatively low female submission and success rates as compared to the overall picture.

The senior management (i.e. Pro-Vice Chancellor, Dean of Faculty or equivalent) of the eight identified institutions were approached and invited to assist BBSRC in this project. In all cases, operational leads from research offices or from the institutional/departmental equality and diversity teams were identified to assist in the preparation of both the data used for desk-based research and the formation of the focus groups.

Desk-based Analysis

In order to determine the context for each of the focus groups, information (based on good practice in supporting women in academic organisations[4]) was sought from each institution around their current approach to supporting academics apply for, and win, competitive funding. In addition, institutional policies, accreditations (e.g. Athena SWAN, HR Excellence Awards etc.) were reviewed to identify support specifically directed at female academics. The information sought could be classified into the areas shown in Table 1.

Contextual Indicators of Existing Support for Academics		
A clear vision and rational for gender equality and inclusion	Robust data collection and statistics relating to women in research and leadership roles	Published data, targets and metrics, including 'softer' targets such as development and succession planning

[1] http://www.rcuk.ac.uk/documents/skills/RCUKDiversityNarrativesanddata-pdf/
[2] This includes individuals on a 'Teaching and Research' contract within the HESA Cost Centres (2012/13 onwards) of Veterinary Sciences, Agriculture, forestry and food sciences, and Biosciences. Individuals listed under other HESA cost centres are eligible to apply to BBSRC, but are not counted in this analysis, due to relatively small numbers.
[3] http://www.rcuk.ac.uk/documents/skills/RCUKDiversityNarrativesanddata-pdf/
[4] http://www.ecu.ac.uk/equality-charters/athena-swan/athena-swan-resources/

Gender equality policies, processes and practices, challenging discriminatory structures, gender impact assessments, audits and reviews	Support networks for women	Coaching for women (early/mid-career)
Sponsorship programmes/opportunities	Mentoring programmes/opportunities	Awareness of and training in unconscious bias
Leadership at the top of the organisation	Men as well as women engaged with actions	Membership or award of standard or benchmark

Table 1 Examples of contextual information gathered for each of the selected HEIs prior to the focus group activity

BBSRC Data Analysis

BBSRC application and success rate data, broken down by gender, for sessions 2011-2014 were analysed. The data, aggregated for BBSRC's top 30 institutions (and not by the institutions selected for focus groups), were broken further into:

- All grants
- Large grants (i.e. the strategic Longer, Larger [sLOLA] scheme[5] (for grants in excess of £2M)
- Fellowships

Focus Groups

Focus groups were run at each of the institutions throughout August and September 2015. Membership of the groups was drawn from academics at all career stages, from early career researchers and fellows, through established researchers and those in senior professorial positions. Students, postdoctoral researchers and people in support roles were excluded, since these groups are ineligible to apply for BBSRC grant funding.

Group discussions were facilitated by BBSRC staff and supported by members of BBSRC's Delivery Team, responsible for all of BBSRC's peer review functions, and who could advise on the technical aspects of the peer review process (including referee selection, committee memberships and peer review operations).

The groups' discussions were facilitated using LEAN methodologies[6], an approach used successfully across the public and private sectors to focus discussion and identify priorities for further action. An initial 'structured brainstorm' was undertaken using a version of the question "What are the challenges faced by women in applying for, and being successful in, obtaining grant funding from BBSRC?"[7]. Topics identified in the roundtable structured brainstorm were prioritised by the group members, and the top issues were used in further 'root cause analyses' to understand the real causes of these concerns.

All the groups were encouraged to posit potential solutions to these issues, and also to challenge BBSRC when it became apparent that solution(s) rested largely in amending the Council's operations and processes, rather than at the institutional or peer review level.

The outputs from each focus group were summarised by the BBSRC facilitators. Each group was subsequently provided these outputs to ensure all salient points were captured, were represented fairly and accurately, and also to give a final opportunity to feed in any further points. Subsequently,

[5] http://www.bbsrc.ac.uk/funding/grants/lola/

[6] http://www.lean.org/WhatsLean/

[7] Different focus groups used variations of this question due to differences in individual facilitation styles of the group leader, but all were directed at the same issue

the outputs were anonymised, pooled and used in a meta-analysis that clustered points according to similarity and frequency they were raised by delegates.

RESULTS

Institutional Profiles

Seven institutions agreed to participate in the focus groups. Each institution, with one exception, targeted membership of their focus group on faculties, institutes, schools and departments most closely linked with BBSRC funding[8]

Application and Success Rate Data

BBSRC application and success rates, split by gender and by type of grants, were analysed for BBSRC's top 30 institutions for sessions 2011-14; the data are presented in Appendix 1, and the subsequent commentary should be read in conjunction with this appendix. Table 2(a) shows the number of grant applications received by BBSRC, increasing year-on-year from 1447 in 2011 to 1932 in 2014. Of these, the proportion submitted by women[9] remained relatively constant at between 21-23%. Table 2(b) shows the success rates, split by gender with the overall success rate included for comparison. Over the period studied, the overall success rate has fallen from 30% to 26%. Success rates for men and women vary, with men having slightly more success overall than women (the success rate for men reducing to 27% in 2014 from 31% in 2011; the rates for women being 24% in 2014 from 26% in 2011).

Table 3(a) shows the number of applications for sLOLA funding, with Table 3(b) showing success rates for the same. The number of applications for this funding is small, reflecting the strategic nature, size and complexity of projects awarded through this route. It is difficult to drawn many conclusions, due to the sample size, but the success rate of women in obtaining funding through this route as Principal Investigator is considerably lower than that of men. Since 2011, 3 sLOLAs have been awarded to women, compared to 27 awards to men (data not shown). For two consecutive years (2012 and 2013) no sLOLA awards were made to women, compared to 9 and 6 respectively to men.

Table 4(a) shows the number of applications for BBSRC fellowships split by gender, and Table 4(b) shows the success rates. The large increase in number of applications in 2014 reflects the introduction of the Anniversary Future Leader Fellowships (AFLF) scheme for postdoctoral researchers: in previous years, BBSRC only ran the independent research career David Phillips Fellowships programme. The AFLF programme appears to have encouraged female applicants to apply: in 2001-13, applications to fellowships were approximately 30% female. In 2014, covering both AFLF and David Phillips applications, this proportion increased to over 42%.

The success rate for fellowships is low (averaging ~8%) which reflects the highly competitive nature of bioscience fellowships more broadly. Since 2012, when men and women were equally likely to be successful (noting of course the small sample size of this portfolio), women have been consistently more successful at obtaining fellowship funding than men.

Contextual Indicators of Existing Support for Academics

The contextual indicators shown in Table 1 were used to compare the existing support available to academics in the institutions involved in this study. Data were obtained from institutions as well as from publicly-available sources (including institutional websites).

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[8] One institution opened up membership of the focus group to all academic staff, regardless of discipline/department.

[9] As principal investigator

All institutions demonstrated their commitment to equality and diversity, collected robust data and offered support to researchers (both male and female) through their Athena SWAN charter membership, and their associated action plans. It was therefore difficult to use these contextual indicators in further analyses of differences between institutions.

Membership of benchmark, charter or equivalent external validation
The membership of charter organisations or other external validation of institutional good practice demonstrates commitment and strategic vision within the institution for supporting researchers. The obtaining of such recognition indicates that there is a robust data collection, ambitious plans to support academics in their careers, as well as buy-in from institutional management. The award of charter marks and similar can therefore be used as a proxy for many of the contextual indicators used in this study.

All seven institutions hold HR Excellence in Research Awards, recognising their commitment to supporting their staff through personal development[10]. As members of Universities UK, all the institutions are signatories of the UK Concordat to Support the Career Development of Researcher Staff[11]. In addition, all seven institutions are members of the Athena SWAN charter[12], and all hold at least an institutional bronze award: two hold institutional silver awards. The majority also hold at least bronze awards, with a smaller proportion holding silver, at a departmental level.

Focus Group Outputs
The focus groups were facilitated by BBSRC officials, who acted as impartial facilitators to the discussions. The comments made by members of the focus groups were anonymised and clustered independently of the facilitators, in order to reduce unconscious bias within the analysis. Each cluster contains observations and suggestions made by the focus groups, in no priority order.

Five broad topics were identified, and are detailed below:

- Competition for Funding
- Application Processes
- Support for Researchers
- "Science as a Social Construct"
- Societal Gender Issues

The anonymised outputs for each of these topics can be found in the associated annexes.

Competition for Funding – Annex 1
There was a concern that a reduction in funding available for standard research grants, either through a smaller overall science budget or with the strategic award of larger grants (strategic longer, larger grants – sLOLA) will drive increased competitive behaviour, a characteristic more often associated with men than women. There was a perception that success rates for women applying for sLOLAs were lower than that for men. Additionally, it was noted that most sLOLAs were led by professors and, since the proportion of female professors was considerably lower than male professors, this was considered to be another barrier to funding for women.

A suggestion was made that success rates of men and women may vary by career stage, perhaps dependent on life and career choices (e.g. mid-career women are less successful because they are more likely to have had career breaks or are working part-time/other flexible working due to carer responsibilities.

[10] https://www.vitae.ac.uk/policy/hr-excellence-in-research
[11] https://www.vitae.ac.uk/policy/concordat-to-support-the-career-development-of-researchers
[12] http://www.ecu.ac.uk/equality-charters/athena-swan/athena-swan-members/

The issue of quotas was raised by a number of the focus groups, as a strategic and high-profile way in which research funders could demonstrate their commitment to gender parity. This has been trialled in other countries, Sweden being mentioned specifically. Interestingly, despite having low success rates compared with national funding, European Research Council programmes were perceived to be more inclusive, and thereby more attractive option, for female applicants.

Application Processes – Annex 2

It was unanimously agreed that, regardless of the process, peer review should be gender neutral and support a gender neutral approach based solely on the excellence of the science being proposed. Discussion on application processes was considerable within the groups, yet many of the issues raised (BBSRC remit, resubmissions policy, clarity of the decision-making process, feedback) were effectively gender-neutral (i.e. affected male and female researchers equally), and so are not covered here[13].

One of the focus groups raised the issue that submitting a grant was time-consuming and, with a success rate of ~25%, meant that there was a high level of attrition. As women were more likely to be primary carers with limited time, this attrition was unsupportable. This group suggested that, to reduce burden on everyone, but especially women, a triage stage be introduced whereby only the best applications were invited to submit full proposals.

The overwhelming view from the focus groups was that some revisions to BBSRC's application processes and procedures were needed to level the playing field for those applicants who do not have a traditional career path (who are, largely, women who take maternity leave and who return on a flexible working pattern, or people who discipline-hop) and so whose track record and outputs may appear patchy or limited. Revisions suggested included:

- Fully anonymised peer review (so that no-one knew the gender or other recognisable characteristics of the applicant)
- Assessment based on the science case only (which limited any bias based on the track record of the applicants, particularly if their published outputs were reduced due to maternity leave or part-time working)
- Standardisation of the CV submitted (or removal of the CV) to ensure that everyone was treated fairly, and no bias crept into the process

In addition, BBSRC was encouraged to work with RCUK and UK Shared Business Services to improve the automated responses generated for unsuccessful applicants, and more considered feedback comments.

Furthermore, there was a view that further analysis of BBSRC's own data (on referee comments, rank-ordered lists and comparison of male and female panel scoring patterns for grants submitted by men and women) was desirable, to further identify and understand biases in the existing systems.

Support for Researchers – Annex 3

Support for researchers in successfully applying for grants was highlighted by all the focus groups as being essential. It was accepted that most people, regardless of gender, who were applying for grants would benefit from such support, particularly at the early stage in their career (new fellows, lecturers etc.).

The support could be further clustered into two broad categories: support provided by an individual's employer; and support provided by funders. Support provided by employers included mentoring and

[13] Despite not being covered in this report, these 'gender-neutral' issues have been inputted into the continuous improvement process that BBSRC has around its peer review mechanisms.

sponsorship schemes and grant-writing guidance. All institutions involved in this study offered different mentoring programmes, some aimed at women and some more generally targeted at early career researchers. However, it was interesting to note that the level of awareness of these programmes was mixed, and in several of the focus groups appeared to be discipline- and department specific.

The support provided by (or could/should be provided by) funders included opportunities for networking in a safe and supportive environment (including women-only events), and advice for new researchers. One area where BBSRC could improve its support to women was in its communications with grantholders which was seen as opaque and distant: members of the focus groups agreed that BBSRC should be more approachable and visible, particularly to women who often felt nervous about contacting anonymous members of the office for support and advice on grants. The focus groups also suggested that clarity around the terms and conditions of grant, particularly in respect to parental leave, was desirable.

"Science as a Social Construct" – Annex 4
One of the strongest messages arising from the focus group was the way science was structured and how the scientific community organised themselves. This "social construction" manifests itself in ways such as:

- Networking after standard work hours, away from an individual's place of work and often in traditionally masculine environments (e.g. bars).
- Expectations of working collaboratively, which cements leadership and dominance (traditionally masculine traits) and the subordination of anyone not considered the 'Principal' Investigator
- Expectations that research-active scientists work full-time hours and are publishing regularly throughout their career, regardless of personal circumstances

There was also an anecdotal view, expressed often, that women applicants were being penalised by reviewers for a lack of risk-taking in grant applications. The critical, perceived negative, language of reviewers also came under scrutiny in the focus groups: it was generally agreed that women are more likely to take such criticism personally, and it was suggested reviewers consider their language and its implications when writing comments.

The key concern, raised at all the focus groups, was around 'non-traditional' career paths: in the context of the focus groups, this was considered to mean taking parental leave and working flexibly (including part-time). Focus group members were near-unanimous in their opinion that women were more likely than men to be detrimentally impacted by periods of parental, and that working part-time or flexibly impacted negatively on the perceived ability of female researchers to publish in high quality journals on a regular basis. Additionally, the groups all commented that it was unreasonable for reviewers (and promotion panels) to expect the same level of output from someone working part-time, or who have substantial caring responsibilities, as from someone working full-time with no familial commitments. These perceptions, exacerbated by the focus on track record in grant applications and the nervousness of women around taking calculated risks in submitting non-perfect applications, are likely to be significant contributing factors to the lower submission rate of women. This, together with the need for academics to be recognised as a Principal Investigator, means women are more likely to submit smaller grants that they lead, rather than act as co-Investigator on larger grants.

Societal Gender Issues – Annex 5
A number of issues not unique to science were raised. Whilst the focus groups recognised that solving these issues was outside the scope of the discussions, the members were keen to flag these as important contextual framing for some of the more research-focused issues raised.

Several of the focus groups commented that, in general, women have a higher level of conservatism than men, and this leads to an 'underselling' of their research. Additionally, it was considered that women are more risk-averse than their male counterparts, which restricts their ability to win grants, where a level of risk is seen as desirable. Women are seen to be less willing to ask for help, with a strong view that to do this would be an indication of weakness or in some way detrimental to their application.

DISCUSSION

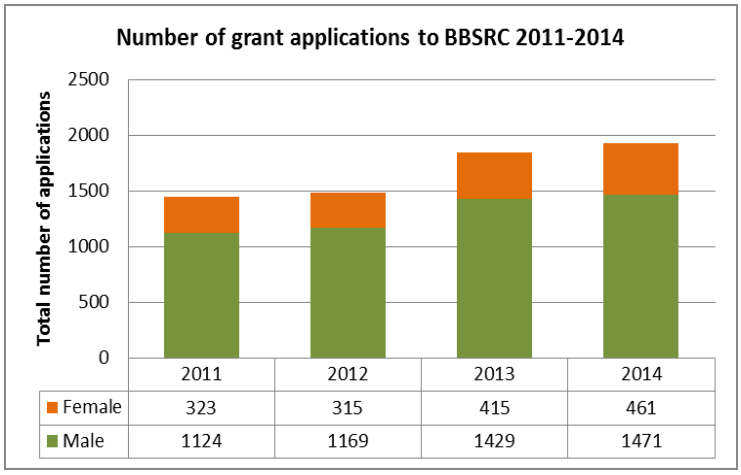
- The dataset for this study is necessarily small and conclusions are limited. The institutions selected were research intensive, Russell Group, and arguably fairly homogenous in strategy. It will be interesting for further studies to include new universities, small- or specialist institutions or those with a regional (rather than national/international) reputation in the study, since they may offer alternative issues/challenges/solutions.
- There is shared responsibility (between applicants, their employing institutions and BBSRC as their funder) to promote good practice for an individual, regardless of gender.
- Recommend that institutions that run internal peer review processes and/or sifts ensure that these processes are fair, transparent and accessible to all.
- Further analysis of data, including whether women are indeed more likely to be co-Is, needs to be carried out.
- There needs to be further work to learn from other funders (where possible) about changes to assessment processes. For example, what experiences have others had of fully anonymised peer review – there was a perception in some focus groups that this would not work as people would speculate (possibly incorrectly) about the PI?
- There has to be detailed considerations about <u>how</u> changes could be made to funding systems – operational aspects, or broader experience of others, need to be being considered.
- There was not a favourable view of quotas, as these were considered short-term fixes. Rather, positive action was preferred. European funding (where the view was that there is an expectation that teams are of mixed-gender) was seen as an example of positive action rather than quotas.
- There is a sense that that institutions are seeing Athena SWAN as an outcome, as oppose to a model for organisational design and change, although there is usually a robust action plan accompanying the submission. There is limited evidence that there is a process for embedding this into 'business as usual' i.e. collecting data for Athena SWAN, is about collecting data for Athena SWAN, rather than as an integral part of organisational policy for supporting their employees.
- There was an absence of concrete support from institutions for individual career aspirations: how does the institution identify and nurture talent? Is there anything that could be learned from large corporate organisations?
- There is a potential issue for BBSRC equating being a Principal Investigator with success, with the associated implication that everyone who is not a PI is a failure.

ACKNOWLEDGEMENTS

The authors acknowledge the help of BBSRC colleagues who ran the focus groups and provided expert peer review knowledge to the groups. We also would like to thank participating staff in the seven universities for their input into the focus groups.

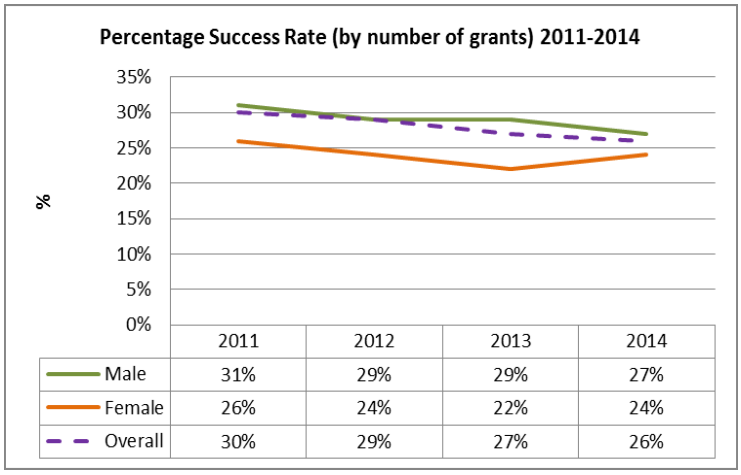
Appendix 1

BBSRC Application and Success Rate 2011-14



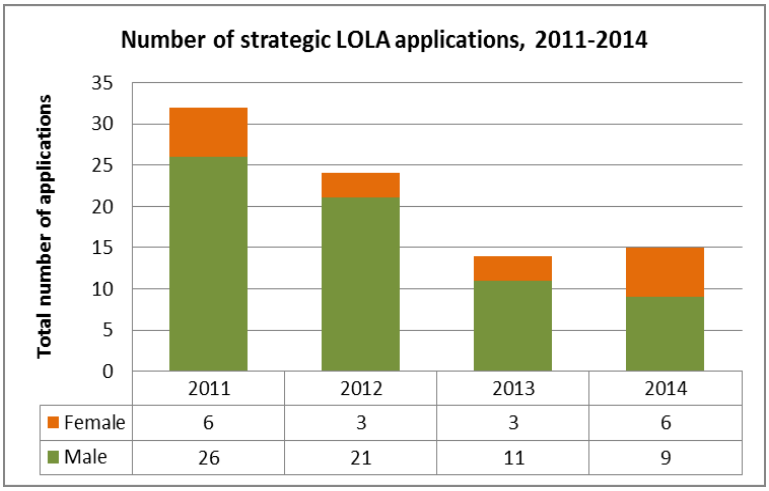
	2011	2012	2013	2014
Female	323	315	415	461
Male	1124	1169	1429	1471

Table 2(a) number of applications received for BBSRC funding between 2011 and 2014, broken down by gender of the principal investigator



	2011	2012	2013	2014
Male	31%	29%	29%	27%
Female	26%	24%	22%	24%
Overall	30%	29%	27%	26%

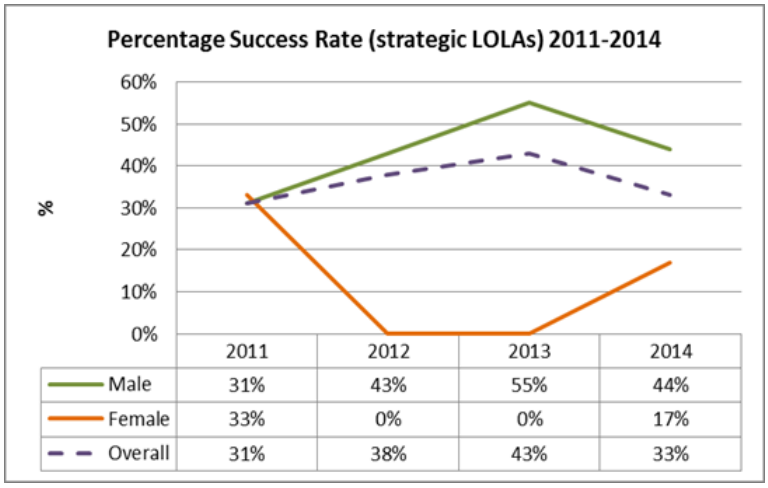
Table 2(b) success rate in obtaining BBSRC grant funding between 2011 and 2014, broken down by gender of principal investigator



	2011	2012	2013	2014
Female	6	3	3	6
Male	26	21	11	9

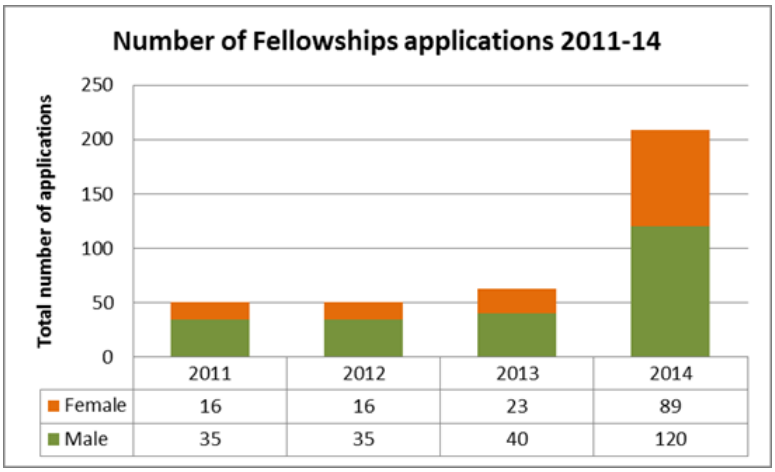
Table 3(a) number of applications received for BBSRC strategic Longer Larger grants between 2011 and 2014, broken down by gender of the principal investigator

Appendix 1



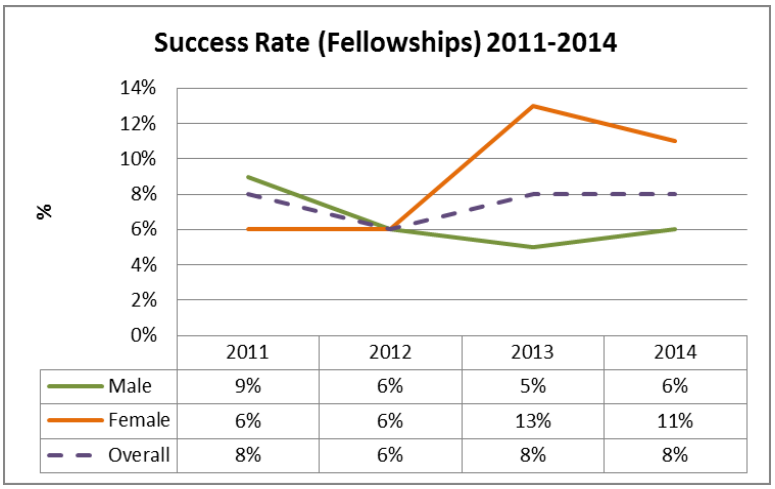
	2011	2012	2013	2014
Male	31%	43%	55%	44%
Female	33%	0%	0%	17%
Overall	31%	38%	43%	33%

Table 3(b) success rate in obtaining BBSRC grant funding between 2011 and 2014, broken down by gender of principal investigator



	2011	2012	2013	2014
Female	16	16	23	89
Male	35	35	40	120

Table 4(a) number of applications received for BBSRC fellowships between 2011 and 2014, broken down by gender of the applicant



	2011	2012	2013	2014
Male	9%	6%	5%	6%
Female	6%	6%	13%	11%
Overall	8%	6%	8%	8%

Table 4(b) success rate in obtaining BBSRC fellowship funding between 2011 and 2014, broken down by gender of fellow

ANNEX 1

COMPETITION FOR FUNDING

What IS excellence? How is it measured, recognised and rewarded?	Need to 'chase the money' – do you go it alone and be lead, or do you support others through co-investigator status?
Anything that reduces your competitiveness is detrimental: this includes part-time working and child rearing	Reducing budgets will exacerbate competitive behaviours
Women can be the harshest critics of other women	Women appear to perform less well in large grant schemes – why is this?
Managed mode success rates are lower that responsive mode, and this instil 'laddish' behaviour	LOLA funding takes funding opportunities away for smaller grants, making the landscape more competitive
Men more likely to see the grant process as a sport – they will take the risk of resubmitting similar grants, whereas women are more likely to wait for the 'perfect' set of data.	Scientists' increasing reliance on 'soft funding' might prejudice against women
Strengthen the rules, i.e. impose quotas on meeting memberships etc.	

ANNEX 2

APPLICATION PROCESSES

Blind/double blind peer review	Write about mitigating circumstances that have had an impact on your participation in the research system
Use other metrics to identify excellence other than citations which biases against people who have had career breaks/work part-time	Need to recognise up front that the workload for pool members is manageable
The timeframe for assessment needs to be improved	The lack of ability to resubmit disadvantages women who prefer to submit high quality proposals less often.
Examine success rates across career stages and genders – are they equal?	Gender neutrality in applications
'One hit' peer review disadvantages women.	Need for a balances assessment panel
Do male and female reviewers self-describe their expertise in similar ways, and if not, how can this be standardised or normalised?	Need to exclude referees that show bias in reviews
Are reviewer guidance notes sufficiently explicit in challenging bias?	There needs to be a mechanism to challenge perceived reviewer biases
Need to separate out track record from scientific case, or cut it entirely: is track record required?	After a career break or flexible working, women's CV appears to need to be better – is this true?
BBSRC needs to be more approachable	Need better information for maternity leave and how this impacts funding commitments
Excessive use of alpha male wording in call texts may deter women	Language in referee comments has been shown to be different depending on the gender of the Principal Investigator
Some of the information on the application form may deter women from applying	Specific guidance on what is/is not allowed on grant applications is misleading, and women are less likely to apply if there is any ambiguity
Women are asked for reviews whilst on maternity leave – how can this be stopped?	Observation that multi-disciplinary reviews go to a 'normal' panel potentially leads to double review, double jeopardy and double unconscious bias
Women are risk averse when applying for grants	There is scepticism on the transparency of the grant awarding process
Is there any clustering of men and women in the rank-ordered lists (i.e. do women cluster at the cut-off line?)	What are the proportions of men/women in different schemes?
Examine language in automated responses and all communications	Consider RCUK quotas for women (c.f. Swedish Research Council)
Why is EU funding perceived as more inclusive and therefore more attractive option for women?	Analyse differences between scoring for proposals – male applicant/female assessor, female applicant/female assessor etc.
How the feedback to unsuccessful applicants is structured needs to be carefully studied to ensure it is not putting women at disadvantage	Blind peer review.
RCUK remit boundaries need to be clearer	Is there evidence of bias in BBSRC's processes?
Not clear how to structure and present research proposals	What is judged in grant assessment? E.g. is publication record the critical criterion?
Do grants need to be in priority areas?	Men are more comfortable about not having

Women are less likely to apply if their project falls outside priority areas than men	grants in priority areas
The structure of the grant inhibits female application, e.g. the length of the grant, the proportion of time requested etc.	Application processes are restrictive (especially if someone has other 'draws' on their time)
What is the balance between the views of panels and reviewers? Is there evidence of scoring bias?	Applications should primarily assess science, with track record being subsidiary to this assessment.
Assessment should be gender blind	CVs are not required – how are they relevant?
Some level of anonymity would be desirable	Publication record should be over a longer period of time to reflect career breaks
Over-reliance on publication record should be avoided	Need to ensure review text and scores align
Recognition that the peer review process is subjective by its nature	Why is feedback provided if resubmissions are not permitted?
Although you can apply part-time, are you judged in the same way as full-time?	Assessment doesn't take into account career breaks when assessing publication record
Mixed understanding of grant application criteria	Women are less likely to apply if there is ambiguity
Women are less likely to ask for feedback, since they 'don't want to make a fuss' thereby not learning from the process	Lack of transparency from BBSRC over gender balance of panels and data on submissions/success rates
Do women do fewer reviews?	Should peer review be anonymous?
Men are possible guilty of providing 'faint praise' to women	Women less likely to volunteer for things – could BBSRC target engagement proactively at women?

ANNEX 3

SUPPORT FOR RESEARCHERS

Support for childcare costs when travelling for work.	Greater use of technology to allow for participation at conferences but not attend.
Flexible working practices	Support from Research Offices/Services: offering advice on grant funding, costs etc.
Career/peer support	Grant mentoring, including grant writing support
External coaching and mentoring	Good performance management by line managers
patronage	Some level of positive action to support women
Senior member of staff helps by reviewing grant proposals and offer suggestions for improvement	Informal internal peer review
Research facilities network, to help share best practice	Apply to be on a funding committee (or knowing someone who is) helps people gain knowledge of what is a good application.
Better use of pee review staff at BBSRC	Rolling out academic mentoring, share best practice within an institution
Self-promotion at an early stage is key	Support in writing clear CVs that explain career breaks etc.
Support for people who move institutions to get a role	Recognition of career breaks and transition gaps (i.e. between disciplines)
Institutions should offer help for being a 'good reviewer'	Academic mentoring schemes are patchy across institutions
Level of support differ between departments	BBSRC should consider support for family/children attendance at conferences to support the applicant being able to attend: some further guidance is needed.
Grant clubs, writing support	Senior colleagues review of applications, informal peer review
Differences in approaches across institutions	Support from finance office
Target individual funding opportunities and partner up with appropriate staff	Consider sponsorship and/or advocacy
Hard to articulate a track record – especially after a career break – so having an advocate can help provide context and support.	BBSRC needs to do more to explain remits, not just via website but through face-to-face discussions with applicants
Lack of direct mentoring is hindering women	More information on parental leave is required from funders
Institutions need to do more to support women e.g. through mentoring	Examples of successful proposals would be helpful
Support for applicants for whom English is not their first language	Is there sufficient support for women when returning after maternity leave?

SCIENCE AS A SOCIAL CONSTRUCT

The people who get grants are likely to be the ones that sit on grant committees, a closed shop	Women are more likely to have a subordinate role in a group i.e. contributing rather than lead author
The "Genius PI", who is male, is the 'cultural norm in most institutions and scientific groups	You are less likely to publish during career breaks
You are less likely to publish when working flexibly i.e. part-time	Biases can be subtle and difficult to identify and prove (particularly unconscious bias)
Conference platforms/panels and committees need to ensure balance	Challenge in getting sufficient number of good women without overburdening them, due to the relatively small proportion of senior women in the sector.
There are more men in science, which leads to a more masculine culture which makes it difficult for women	Men are generally more likely to seek out advice
Women should be recognised as such, and not try to act like men to succeed.	Women should not have special treatment (i.e. positive action) to succeed in their own right.
There should be support for panel members with childcare responsibilities	Co-investigators are not recognised for the money they bring in, this funding is only attributed to Principal Investigators
Women are less ambitious than men and many prefer to have longer term postdoc positions than try for independence.	Networking with panel members may impact on decisions made on who is in or on the panel, not based solely on applications; this argues for anonymised peer review.
Women with caring responsibilities have less time available to them to write grants	Networking is difficult for women with other responsibilities, due to a lack of time
Networking is difficult for women who are shyer in social situations	No compensatory factor for women who have been out of research, or for time lags in catching up
Institutions do not use their own data to support their staff in developing	There are perceived biases in institutional promotion practices
Interdisciplinary agenda doesn't fit well with time and other barriers for women	Need further consideration of meeting locations since travel can be a barrier to women's attendance
Time pressures mean that networking and making contacts can be difficult for women with responsibilities – an advocate can help	Networking usually occurs 'out of hours' so having an advocate can help *in absentia*
Networking is stressful	Women are shyer at speaking out than their male counterparts
Women are expected to change their behaviours to fit the organisational/sectoral 'norms'	Strategy groups are largely comprised of men so may favour a particular direction of science
Science ambition means relocating which is difficult for women to do – this is still an unofficial expectation of the scientific community	Being successful in science means having a good (conventional) track record with no gaps. This is more difficult for women who have maternity leave.
Who sets 'conventions' in science? Men!	More difficult to be a manager of a large team if you work part-time or work flexibly.

ANNEX 5

SOCIETAL GENDER ISSUES

Higher level of conservatism from women than men	Women less likely to sell their research, and so less likely to get funded
Fear of failure high in women	Women more likely to have unconventional career history
Women are more likely to have caring responsibilities and this makes networking and career movement difficult.	Women more likely to overcommit – more likely to say 'yes' when asked.
Men seek power more than women	Men are more likely to be seen as risk-takers, whereas women are more likely to be seen as risk averse
Women are generally quieter than men and so are less likely to be heard.	Women are less likely than men to take rejection
Women are less likely to 'sell themselves'	The level of institutional sexism creates such a barrier that successful women must be outstanding
Women are not men, and should not have to be more male in character to succeed.	Is risk aversion innate to women, or is it societal?
Need to recognise cultural expectations of women, especially around family commitments and ability to meet outside normal work hours	Women are less likely to want to self-promote
Women are more likely to be apologetic or oversensitive to criticism	Complaining about situations are detrimental to careers
What are the consequences of formal complaints?	Is there a general resurgence of sexism in higher education?
Women don't necessarily self-promote as much as men.	Men are less likely to share information than women
Men are less likely to help – because they "are too busy or important"	Men often have better links with industry – what are the data for collaborative grant success rates?