ATHENA FORUM

Women's Career Progression and Representation in Science, Technology, Engineering, Mathematics and Medicine (STEMM) in Higher Education and Research

Good Practice by UK research funders

INTRODUCTION

In July 2010 the Athena Forum held a conference with representatives from UK research funders to discuss how their organisations encourage and support women in science, and in particular what they do to:

Influence and support universities and their STEMM departments in implementing good practice, and to

Ensure the equitable distribution of the money they award.

In advance of the meeting, the main UK research funding bodies had been asked for information on their initiatives, activities, programmes and plans to promote, encourage and support women in science. The information provided was reviewed by members of the Athena Forum, who identified what they saw as the key questions which funders should be asking themselves under the following headings:

1 Policy making and impact assessment

2 Committees, boards and awards panels

3 Monitoring

4 Partnerships with universities and STEMM stakeholders

5 Critical career transitions and research fellowships

The questions provided a framework for the discussion which involved members of the Athena Forum and representatives from Athena SWAN, the Biotechnology and Biological Sciences Research Council **(**BBSRC), the Engineering and Physics Sciences Research Council (EPSRC), the Medical Research Council (MRC), the Science and Technology Facilities Council (STFC), the Wellcome Trust and the UK Resource Centre for Women in SET (UKRC). The Natural Environment Research Council (NERC) did not have a representative at the discussions, but had responded to the initial survey.

This review uses the Forum's questions to highlight areas that the forum felt research funders should review, as a priority, in order to ensure that they are addressing, and are seen to be addressing, issues of gender equality. Each section includes key questions, examples of good practice, and a brief summary of the discussion. The examples do not necessarily give a comprehensive picture of practice across the research funders, but do provide a flavour of the current state of play.

One particular initiative by the Research Councils is a cross-council group which is looking at equality and diversity in peer review and evaluation. It is expected that this summary will inform discussion and encourage self-reflection through this group.

It was agreed that the conference had been useful. It had provided a platform for discussion and an external review. One issue that was flagged was the differences between the requirements of the various funders with respect to their processes, entitlements and expectations. There were differences (for example in relation to maternity leave) which could make it difficult for the parties (the PI, the post doc, the department and university) who might not deal with such matters regularly, or whose only previous experience might have been with a different funder.

The Forum looks forward to receiving updates from the cross-council group and other funders.

1 POLICY MAKING, AND IMPACT ASSESSMENT

Key questions

- Are impact assessments being carried out?
- And by whom?

There were similarities between funders' policies. For example, the Research Councils have standardised the terms and conditions (of studentships, fellowships and research grants) covering maternity, paternity or adoption leave, flexible and part-time working, the Concordat to Support the Career Development of Researchers and employment issues. However, there are differences in their implementation and in the requirements of specific schemes.

The starting point for all the funders was that they 'fund the best people to do the best science,' so they do not have schemes specifically for women, but do have an interest in 'making research careers attractive'.

Good Practice Example: EPSRC

When introducing new schemes, EPSRC takes care to ensure that scheme requirements do not intentionally, or unintentionally, introduce any discrimination. For example, an equality impact assessment was undertaken on a new demand management policy.

Discussion

Although councils undertake impact assessments as part of their public sector duty there was a need for more clarity on:

> The outcomes of these assessments

> Monitoring any action that was taken

> How the results of assessments were fed into governance committees

The impact assessment process itself had proved valuable in bringing together human resources professionals and scheme and programme managers - working together in this way was not a usual occurrence.

2 COMMITTEES, BOARDS AND AWARDS PANELS

Key Questions

- Who is responsible for monitoring the composition of the panels?
- Where do nominations come from?
- How proactive are funders on the nomination of individuals from under represented groups?

All funders review the gender distribution of their appointment boards, strategy panels, peer review panels and research committees. RCUK receives information from individual councils on the gender of board and committee members, which it forwards to BIS for inclusion in SHE figures. However, internally, the formality of these reviews varied and it was not always clear what the reporting chain was, and what mechanisms there were to deal with any issues that were identified.

Good Practice Example: STFC

Where their science advisory panels appear to have a low representation of women, the panel secretary is made aware of this. Suggestions are made on how they might elicit more nominations of women. A database of women is maintained, and is used to target suitably qualified women for boards and committees. STFC actively seek to ensure that women are suitably represented on membership shortlists.

STFC has a Women in SET Focus Group, which annually reviews and reports data to its Education, Training and Careers committee. This includes :
- Applications for research fellowships
- Fellowships and studentships award holders
- Current STFC Committee/Panel membership
- A-level physics entries
- Principal and co-investigators – current grants
- Research grant applications – numbers received and awarded
- Daphne Jackson Fellowships update
- Previous STFC Committee/Panel membership

Good Practice Example: MRC

MRC have recognised the need for the full range of universities (balanced by type and geography) to be represented on boards and committees. This could make it more difficult to achieve a balanced representation of women. They also recognise the need not to 'over use' the relatively small number of senior women. To make sure that women are properly represented, they use a mix of word of mouth, nominations and advertisements.

Discussion

There was a clear need for positive messages in calls for nominations. Women's groups/networks were useful in identifying potential appointees.

3 MONITORING

Key Questions

- Are applications and outcomes monitored for bias using appropriate benchmarks?

Several funders referred to their gender monitoring processes for application and award rates, and the publication of success rates. This information is provided to BIS for inclusion in SHE figures, and most funders published them on their web pages. It was not always clear whether there was active review or follow up.

Good Practice Example: STFC

STFC undertook a comprehensive analysis of success rates on grant applications, the findings of which were discussed at their Education, Training and Careers Committee, the Women in SET Focus Group, and by Science Programme Office division heads.

Good Practice Example: BBSRC

A 'cross-office' group examined the monitoring processes it had in place for its core funding support, to ensure that their application and award processes were fair and equitable. The group's recommendations include the:

- Provision of a statement affirming BBSRC's commitment to equality in peer review
- Encouragement of applicants to complete their personal equality information on JeS
- Establishment of procedures to ensure that equality is observed in the peer review process
- Development of aspirational targets for peer review panels.

Good Practice Example: Wellcome Trust

The Trust collects demographic data at both application and award stage, for all its grants and fellowships. For the last year of data, the success rates of applications from women and men were the same for the senior research fellowships in basic biomedical science, and slightly higher for women than for men applying for research career development fellowships. All their fellowship funding decisions include an interview component

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Discussion

It was suggested that, although funders monitor application and success rates, little was done thereafter with the results.

Generally there was a lack of clarity on who, within the funding organisation, and/or the recipient organisation, was responsible for taking action.

4 PARTNERSHIPS WITH UNIVERSITIES AND STEMM STAKE HOLDERS

Key Questions

- Does anyone check on adherence to the Concordat?
- How are 'Beacons of good practice' identified and what use is made of them?
- In what way do funders use organisations such as Athena Swan and the UKRC, are they useful and do the funders promote their initiatives?
- How is the public sector duty under the new Combined Equality Act being taken forward?

RCUK is a signatory to the Research Concordat, and the Research Councils' terms and conditions have been amended to take account of the Concordat.

Several funders referred to their expectations that the universities they funded would work to implement the Concordat, and had included requirements in their grant terms and conditions to, for example:

- Adopt the principles, standards and good practice for the management of research staff set out in the 2008 Concordat to Support the Career Development of Researchers, and subsequent amendments.
- Provide research staff, at the outset of their employment, with a statement which sets out the provisions for career management and development, including personal skills training, and for ensuring their access to appropriate training opportunities.

Requirements of other schemes included:

- Provision of scientific and transferable skills training to postgraduate researchers
- Adherence to the QAA's Code of Practice for Postgraduate Research Programmes
- Integration of Research Fellows within the research activities of the host department, while ensuring that the fellow is able to maintain independence and to focus on their personal research programme.

Good Practice Example: Wellcome Trust

Wellcome Trust Value in People awards provide Trust-funded universities with funds to help the recruitment, career progression and retention of key staff; for example, by providing a salary until a post or fellowship becomes available.

Good Practice Example: BBSRC

The BBSRC has formed partnerships with universities, and other institutions, to ensure appropriate support is afforded to the students whom they fund. Their Training Awards Committee assesses several criteria, including the training environment offered by a university department or institution, in determining Doctoral Training Grant allocations.

They work with the UKRC, research organisations and universities to ensure good practice is in place wherever they provide funding. They recently ran a joint good practice workshop for the HE and research community. 'Beacons' of good practice were presented, with discussion groups on employee engagement, culture change, barriers, implementing successful flexible working arrangements and improving career progression. Feedback was positive and they hope to arrange a further workshop later this year.

Good Practice Example: EPSRC

The EPSRC is developing a closer relationship with some of the universities which receive the largest proportion of its grant funding. They hope by so doing to be able to identify good practice that can be communicated to other universities.
They plan to work with Athena SWAN, and RCUK to identify and clarify the position for EPSRC funded chemists, and will disseminate good practice, especially if evidence emerges that there is reason for the concern (expressed in the recent international review of chemistry) that there might be some way to go in changing the academic culture for it to be truly representative.

Good Practice Example: NERC

The NERC's current strategy is to increase the awareness of the researchers they employ/fund that they are part of an 'environmental sciences community,' and to encourage greater collaboration across organisational boundaries in tackling the issues faced by the community. The NERC's people and skills network now has several members based in universities – the network shares good practice, promotes collaborations, and considers joint initiatives. At a recent meeting members compared the 'PhD experience' for students in various NERC-funded organisations

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Discussion

Funders have relationships with universities and departments at different levels. For example, programme and scheme managers mostly deal with individual academics (their grant holders/PIs) and were not in a position to influence at departmental level. However, funders increasingly have more strategic relationships at departmental and university level, and there is a need to ensure that these are 'joined up'; for example, rather than asking individual PIs how the Concordat is implemented, the funders should be assuring themselves about this at departmental level

It is a requirement that universities who receive funding follow the Concordat and provide the necessary training, development and support. There are several monitoring mechanisms in place at institutional level; for example, the Research Councils' Financial Assurance Programme, and the Concordat benchmarking initiative. However it was not clear whether the department or the Principal Investigator would know what was good and what was bad practice in relation to the employment and career progression of staff employed on the grant. Therefore there is a need to continue to promote these messages through a variety of routes, and to ensure that momentum in this area is maintained after the end of Roberts' funding..

5 RESEARCH AND RETURNER FELLOWSHIPS

Key Questions

- Are returner fellowships available?
- Are part time/flexible working patterns permitted and/or facilitated?
- What is the funder's position on encouraging or requiring mentoring?

5.1 Research Fellowships

Research Council fellows are entitled to take maternity, paternity, adoption or parental leave. If requested, consideration will be given to allowing a fellowship grant to be placed in abeyance during the absence of the Research Fellow for maternity, paternity, adoption or parental leave, and the period of the fellowship extended by the period of leave. Consideration will also be given to requests to continue the fellowship on a flexible or part-time basis to allow the Research Fellow to meet caring responsibilities.

Good Practice Example: Wellcome Trust

The Wellcome Trust has a reporting requirement at the end of a fellowship. They have also introduced long term career tracking of award holders. This allows them to gain a better understanding of the career progression/career choices their award holders make. This will, over time, help inform their provision of research and career support. They have good success rates on this, because they keep in touch with their people during the intervening period between surveys.

The Trust visits universities to talk to prospective fellowship applicants about the issues that they should consider before they apply.

Their preliminary application stage, for all personal awards, enables applicants to benefit from early advice on their competitiveness and suitability before they make a full application for a fellowship.

They hold regular meetings for their fellows, where career development is discussed.

Good Practice Example: MRC

The MRC tracks the career progression of their fellows (using e-Val - MRC's online system for gathering data related to the outputs and outcomes from MRC-funded research).

Good Practice Example: STFC

The STFC has introduced a number of changes (based on recommendations from their women and science focus group) including:

- All fellowships are available on a part-time basis
- Assessment criteria for fellowships were revised, to include an applicant's potential to communicate science effectively and take on the wider role and responsibilities that are part of a career in academia
- They redefined their fellowship schemes to enable and encourage returners to apply

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Good Practice Example: Royal Society

The Royal Society provides a variety of free developmental activities and programmes for its fellowship holders.

They expect employers to make time available for the fellow to attend any courses which the holder thinks appropriate.

The society holds regional network meetings, which enable fellowship holders to discuss issues in an informal environment, and exchange experiences of career progression in different

departments/universities.

Family support schemes are available to their early career fellowship holders. These allow holders to claim costs of family support when these can be justified on scientific grounds. They are mainly used for childcare costs to attend conferences, and for collaborative visits.

The RS established their Dorothy Hodgkin Fellowship scheme in 1995. This supports excellent scientists and engineers at an early stage of their career. It offers the flexibility that is particularly useful to women. The scheme's aim is to retain excellent scientists and engineers in research careers, who might leave research without the option of flexibility. In practice, the fellowships are used by holders to establish themselves as independent researchers in their chosen fields and to negotiate first permanent positions at universities.

Good Practice Example: NERC

The NERC has recently launched a research associate programme, which gives individuals the opportunity to assess whether a research career would suit them. Placements are offered in NERC centres, with tailored programmes which combine continuing training development with 'on the job' experience. The initial intake attracted a high proportion of female applicants. Appointments are offered on the basis that when the training period ends (usually after three years) the individual will be offered either continued employment or a transition payment aimed to allow them 'breathing space' to find their next career move. The scheme also focussed on identified future skill needs within the NERC community.

Discussion

It was important to encourage applicants for research fellowships to include information on any factors that may have affected their output or publications record: for example, less than full time working, career breaks or illness. However it was acknowledged that the advice women received from their HODs/ colleagues may to be the reverse of this. It was important for there to be clear guidance on this for panel members and research funder staff and for panel secretaries to identify such instances and ensure that they were properly taken into account in the assessment process.

It was useful for their future careers, to involve younger research fellows in the processes of awarding grants, to learn by sitting in on the process and being party to the decision making process

5.2 Returner Fellowships

RCUK has a memorandum of understanding with the Daphne Jackson Trust and the five Research Councils sponsor returner fellowships under this scheme

Good Practice Example: Wellcome Trust

The Trust offers career re-entry fellowships to post doctoral scientists who wish to re-embark on a scientific career after a break of at least two years. The fellowships are tenable for from two to four years, depending on the level of seniority prior to the break; part time working on a *pro rata* basis is possible and retraining costs are covered.

Good Practice Example: STFC

Returner fellowships may be awarded, on merit, at the discretion of the Chief Executive. The STFC has introduced a new Return to Research Support Bursary scheme, to provide support for scientists who would like to return to a career in research. The award will enable researchers with a PhD, who have been out of active research for two years, to develop a proposal suitable for submission to the STFC's Fellowship Scheme for future funding.

Discussion

More information was needed in order for funders to determine the critical stages at which support may be needed.

Daphne Jackson Fellowships were valuable but were not, on a stand alone basis, sufficient for many recipients to get back on a full research career track. Promotion of opportunities for follow on funding was important for this.

6 RESEARCH GRANTS

Key Questions:

- Does funding allow flexibility?
- What are funders' policies on maternity/paternity leave and funding extensions?
- What guidance is available to applicants/panels/referees about interpretation of career breaks, gendered comments etc?
- Is there monitoring of how panels actually respond to these issues?
- Is PDRA career development actually used as a criterion during assessment?
- Do funders collect data from PDRA's on career progression?

6.1 Flexibility

All Research Council studentships can be held part time and their holders are entitled to take six months maternity leave on full stipend and a further six months leave unpaid.

All Research Council grants provide funds for maternity and will provide 'compensation' at the end of the grant to cover the additional costs of either a substitute appointment or an extension of the grant from maternity, paternity or adoption leave.   However, the Athena Forum felt that there was confusion around how long extensions could be granted and a tension between the need to get the research done and the need to look after the staff on the grant.

Good Practice Example: Wellcome Trust

Time (full and less than full time) spent outside a research environment is taken into consideration when assessing eligibility to apply for support for all Wellcome Trust fellowship schemes.

Wellcome Trust grants may be used flexibly, to cover costs of formal transferable skills and personal development training courses, for post doctoral researchers (and fellows). Free communication and public engagement training are available to their research grant holders and their group members.

Once awards are made, individuals can change the full or part time basis of their employment.

Grants will be supplemented by the actual costs incurred in meeting salary costs of maternity, paternity and sick leave, and in all such circumstances the tenure of the award can be extended appropriately.

Good Practice Example: RCUK

All Research Councils provide additional funding to cover maternity leave and extend the tenure of the grant appropriately.

Discussion

It is important to disseminate good practice and 'celebrate' female 'role models who have taken career breaks/worked less than full time, and are succeeding in science research careers.

Clarity and communication is important to ensure that all stakeholders are aware of existing funder provisions relating to, for example, flexibility, less than full-time working, and payment of additional care costs.

6.2 Research staff career progression

Good Practice Example: STFC

The STFC allows senior post doctoral research assistants to apply for grants, either as a Principal Investigator, or Co-Investigator.

Good Practice Example: Wellcome Trust

The Wellcome Trust made specific reference to their end of grant report requirements in which they ask for information on the principal applicant and the staff employed on the grant, to include their present posts, how the grant has contributed to their professional development and any training provided to their researchers.

Good Practice Example: MRC

The MRC asks the PI to include, in their end of project report, information on where people on their research team are going.

Discussion

It was recognised that:

- Research staff are a more 'elusive' group than postgraduate researchers and research fellowship holders in terms of, for example, career tracking which some funders do for their fellowship holders.
- The funders' contacts are the PIs; the funders do not have any contact with research staff who may change during the course of a project grant
- Only a minority of post docs become academics, so the development of transferable skills is important
- Individuals are responsible for their own career but need to be empowered (for example, through the Athena Forum bookmark initiative, career planning guidance for research staff and Vitae resources)

Better and more targeted career development support, for both research staff and PIs, was needed.

Research organisations should be encouraged to use the Careers in Research Online Survey to benchmark their performance.

University and department Athena SWAN awards now provide national independent recognition of good practice. The continued promotion by research funders of this as an award scheme for good practice and the benefits this brings was suggested

THE ATHENA FORUM

The Athena Forum exists to provide a strategic oversight of developments that seek to, or have proven to, advance the career progression and representation of women in science, technology, mathematics, and medicine (STEMM) in UK higher education. The Forum explores gaps and challenges, and identifies and commends national and international excellence in supporting women in science. The Forum, its Chair and Deputy Chair are independent and it is supported by the Royal Society, the Royal Academy of Engineering, Royal Society of Chemistry, Institute of Physics, the Inter Academy Panel, the Academy of Medical Sciences, the Society of Biology, and the London Mathematical Society.

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