Results of EPSRC Peer Review Survey

February 2009

Executive summary

We ran a survey in late 2008 to gather opinions from stakeholders in academia and industry on the suitability of the current peer review process and suggestions for improving the process. The survey is part of a much larger EPSRC project to review the peer review process. About 900 people took part in the survey which was open to anyone to respond to.

Overall, the current process is seen favourably by the vast majority of the research community, so it does not appear that a total overhaul of the peer review process is necessary. However there is definitely room for improvement.

We will use the results of this survey guide any changes that are made to peer review as part of the review. Actions identified include:

- Redesigning the reviewer’s forms to make them clearer and to make links with assessment criteria more explicit.
- Strengthening guidance for panels, and in particular panel chairs, about avoiding re-reviewing.
- Improving the process followed by panels - for instance improving the speaker’s form, increasing feedback to EPSRC staff about reviewer performance, and ensuring the ongoing and consistent consideration of principal investigators’ responses.
- Addressing concerns about ‘rogue reviewers’ and raising confidence in reviewers and panel members when establishing a new EPSRC peer review college in 2009.

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1 - Introduction

This report contains the findings of a survey run by EPSRC of stakeholders in academia and industry who interact with our peer review process.

We carried out this research to get a general opinion from the research community on the suitability of the current peer review process and suggestions for improving the process.

The survey ran from 6 October 2008 to 7 November 2008 and is a small part of a much larger review of peer review, which is being run in EPSRC, looking at all aspects of the process from application to award. The results of this survey will be used to inform and guide any changes that are made to peer review as part of this review.

2 - Methodology

Objectives
The objectives of this study are to:

- Assess the current feeling of the EPSRC Peer Review process within the EPS community at large and highlight any major perceptions.
- Highlight any particularly favoured areas of the process that should be retained.
- Seek advice and recommendations from the community at large of areas of the Peer Review process that could be improved.

Survey
The research took the form of an online survey with two sections. The first section consisted of six multiple choice questions to give the demographic of the response to the survey. The second section consisted of four questions, each of which asked for three text-based answers. This section was the most important part of the survey and was designed to capture respondents’ views, ideas and recommendations. The questions asked and possible answers (where applicable) are in Annex 1.

The survey was open for anyone to respond and give their opinions on the process. We advertised it through the EPSRC website, Connect newsletter and on all emails sent from EPSRC. About 900 people took part in the survey and we have assumed that a sample this large is representative of the community at large.

Data interpretation
In total, 899 individuals responded – 895 online plus 4 by email. To interpret the replies we grouped similar comments together into clusters. The size of these clusters was used as an indication of how strongly an issue is felt within the community at large.

Another point to note is that the majority of answers to question 6 fit into either question 8 or 9 and so were counted in grouped data for these questions, assuming the point was not then reiterated by the respondent.
3 - Demographic

Survey Overview

Number of respondents: 895
Launch date: 06 Oct 2008
Close date: 07 Nov 2008

1. What type of organisation do you work for?

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>90.0%</td>
<td>798</td>
</tr>
<tr>
<td>Industry</td>
<td>7.3%</td>
<td>65</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>2.7%</td>
<td>24</td>
</tr>
</tbody>
</table>

The other organizations included the public sector, self employed, retired and the NHS.

2. Do you apply for EPSRC research grant proposals in your own right?

<table>
<thead>
<tr>
<th>Apply For</th>
<th>Percentage</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>84.5%</td>
<td>756</td>
</tr>
<tr>
<td>No</td>
<td>15.5%</td>
<td>139</td>
</tr>
</tbody>
</table>

3. Do you review EPSRC grant proposals?

<table>
<thead>
<tr>
<th>Review EPSRC</th>
<th>Percentage</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>85.0%</td>
<td>761</td>
</tr>
<tr>
<td>No</td>
<td>15.0%</td>
<td>134</td>
</tr>
</tbody>
</table>

3.a. Approximately how many EPSRC grant proposals do you review per year

<table>
<thead>
<tr>
<th>Reviews Per Year</th>
<th>Percentage</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>40.1%</td>
<td>305</td>
</tr>
<tr>
<td>4-6</td>
<td>36.0%</td>
<td>274</td>
</tr>
<tr>
<td>7-9</td>
<td>17.1%</td>
<td>130</td>
</tr>
<tr>
<td>10+</td>
<td>6.8%</td>
<td>52</td>
</tr>
</tbody>
</table>

4. Have you attended an EPSRC panel in the last 4 years?

<table>
<thead>
<tr>
<th>Attend Panel</th>
<th>Percentage</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>42.6%</td>
<td>381</td>
</tr>
<tr>
<td>No</td>
<td>57.4%</td>
<td>514</td>
</tr>
</tbody>
</table>

5. Are you an EPSRC College member?

<table>
<thead>
<tr>
<th>College Member</th>
<th>Percentage</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>71.3%</td>
<td>638</td>
</tr>
<tr>
<td>No</td>
<td>28.7%</td>
<td>257</td>
</tr>
</tbody>
</table>

Of the 895 people who responded, 180 did not give any text based answers so all points below are based on the 715 respondents who voiced opinions or recommendations through questions 6, 7, 8 and 9. Not all of these 715 people gave a full set of three answers to all four questions in the second section.
4 - What three aspects of the EPSRC peer review should be retained?

Of the 715 people who gave text based answers, 603 answered this question.

Acceptance of the current process

Overall the current process is seen favourably by the vast majority of the research community with 75 people stating that the process shouldn’t be changed at all.

Answers given touching on this concept could generally be split into three groups:

- The first being keep everything or the majority of the system the way it is, making comments such as ‘The Peer Review system in general is VERY GOOD. Most aspects (99%) should be retained.’

- The second group comments seemed to fall into were ones that supported the peer review system structure but felt the current process has room for small improvements, for example ‘Generally the overall process works well. I do not think a complete overhaul is needed, just some adjustments.’

- The final group was made up of comments that the current process is not fit for purpose such as ‘I have almost nothing positive to say about the current process, as I believe it should be completely changed.’

![Figure 4.1 – General acceptance of the current process](image)

186 (31% of 603) of the respondents commented generally on the current process. 10 of these were from industry.

We see the large number of people supporting the current system as an endorsement of the process. In general the scientific community views the current peer review process reasonably positively and therefore a major overhaul is not
necessary. However, due to the points raised over the next few questions there is definitely room for improvement.

**Specific items to retain**

Many specific parts of the peer review process were raised by the respondents as being important to keep in the process. These points are shown in the graph below with the number of people who raised that point as being worth keeping.

![Bar chart showing parts of the peer review process to retain](image)

**Exemplar quotes for each group:**

- **Principal Investigator’s right of reply:**
  ‘Opportunity for PI to respond to referee comments’

- **Panels:**
  ‘Panel meetings with strong chair, and no influence from EPSRC officials’

- **Anonymity:**
  ‘Anonymity of the referees should be maintained’

- **Quality of reviewers:**
  ‘Review by experts in the area of the proposal being considered.’

- **Allowing Principal Investigators to recommend reviewers:**
  ‘The system whereby one can suggest referees, one or more of whom are chosen, is good.’

- **Number of reviewers used:**
  ‘The requirement to have a minimum of 3 referees’
• **Je-S (electronic submission system):**
  'The all-electronic system on JeS is very nice now. I appreciate the JeS delivery of referee reports forms.’

• **The college:**
  'The use of the college is excellent’

• **Length of proposals:**
  'Length of proposal (6+2 pages) - if the project cannot be described in this space, it's not great.’

• **Speed of process:**
  'Fast turn-around on decisions’

In general the answers to this question were pretty positive about the EPSRC peer review process.

It is clear that the ability to respond to reviewers’ comments is a very well-received addition to the process and should definitely be kept. There is strong support for the panel structure and reviewers. Again this suggests that a complete overhaul of the process is not necessary.

### 5 – What are your top three ideas for improving EPSRC peer review at the reviewing stage?

<table>
<thead>
<tr>
<th>Change the reviewer forms</th>
<th>Improve the quality of referees</th>
<th>Use a method of reviewing referees</th>
<th>Greater incentives for reviewers</th>
<th>Make the process double blind</th>
<th>Remove reviewers anonymity</th>
<th>Better handling of Interdisciplinary proposals</th>
<th>More consistency in number of reviewers</th>
<th>Make JeS more user friendly</th>
</tr>
</thead>
<tbody>
<tr>
<td>505</td>
<td>228</td>
<td>186</td>
<td>179</td>
<td>115</td>
<td>89</td>
<td>78</td>
<td>75</td>
<td>46</td>
</tr>
</tbody>
</table>

**Figure 5.1: Areas to improve the reviewing stage**

There were many different views on how to change the reviewers forms so there is no exemplar quote. However, the two major factors regarding the reviewer’s forms were that there doesn’t seem to be a specific area to comment on the quality of the science at the moment and that the current tick boxes aren’t fit for purpose. Recommendations to fix these problems included replacing the current tick boxes
with a numerical scale (e.g. 1-10 or 1-100), using a simpler or more applicable word scale or removing them completely. People felt that the entire form should be reworked, with a question about the quality of the science included in the new form.

In general academics felt that questions on collaboration and knowledge transfer should be grouped into a single question, where people from industry felt that a stronger emphasis should be placed on the potential impact of the proposal.

Exemplar quotes for each of the groups:

- **Improve the quality of reviewers:**
  ‘Proposals HAVE to be reviewed by the experts in the field, not experts in any field willing to review. Therefore the allocation of the reviewers is critical and should be consulted with academics.’

- **Use a method of assessing reviewers:**
  ‘It takes one hostile reviewer to kill an application. Sometimes there are conflicts of interest, sometimes unsustainable criticism. This is unfair to applicants and it is often a matter of luck as to whether an application escapes this kind of review or gets one. Some filtering of these reviews needs to take place so that only well-reasoned reviews count.’

- **Greater incentives for reviewers:**
  ‘Pay the reviewers a nominal sum but with a definite deadline for guarantee of payment’

- **Make the process double blind:**
  ‘The name and affiliation of the institution should be removed from the application before reviewers see them.’

- **Remove reviewers’ anonymity:**
  ‘Explore the possibility of disclosing reviewers names to PIs. I feel that the approach that most reviewers take will be to write the proposals will be much more objective and scientific.’

- **Better handling of interdisciplinary proposals:**
  ‘It can be difficult to get a reasoned opinion on all aspects of a multidisciplinary proposal.’

- **More consistency in number of reviewers:**
  ‘I consider that all proposals should be assessed using the same number of referees’ reports...minimum 3. Some proposals are disadvantaged by having 5 reports compared to 3 on others, particularly if comments are sparse.’

- **Make Je-S more user-friendly:**
  ‘J-eS UI is horrible. Make sure that all questions are visible on the screen at the same time, so that I can see my answers to other questions when answering a new question.’
6 - What are your top three ideas for improving EPSRC peer review at the panel stage?

The panel stage seemed to be the most popular aspect of the current process as only 510 people gave at least one text-based comment on how to improve the panel process. The low response rate to this question suggests that those who didn’t answer the question are happy with the current panel process.

Of these 510 people who replied, 35 gave a comment along the lines of ‘I have none. The panel process as it stands appears to be one of the most fair and efficient procedures I have come across throughout my career in academia.’

![Figure 5.1: Areas to improve the panel stage](chart.png)

Exemplar quotes for each group:

- **Return to more specific panels:**
  ‘Have more focused panel topics - at present, entirely dissimilar topics are grouped together, and members of the panel are often not really competent to judge’

- **Lack of confidence in panel members:**
  ‘Better representation of proposals at panel - i.e. not left to luck on the opinion of a single panel member’
• Method of assessing credibility of reviewers:
  'Encourage review panel to identify flippant and subjective reviewers and make a list of them.'

• Panel should know the budget available:
  'Some indication (+ or - £500K) of the likely cut-off point should be given. It is pointless to spend hours discussing proposals that lie outside the top ten if there are only sufficient resources to fund the best three or four projects'

• Panels should give more feedback to reviewers and proposers:
  'Providing greater feedback from the Panel Review (rather than just a ranking).'

• Better handling of interdisciplinary proposals:
  'A panel solely concerned with interdisciplinary research should be introduced.'

• Panel members should review proposals:
  'Acknowledge that the Panel should use their expertise to determine whether the responses to referees comments are scientifically sound and the weighting to be given to the different reports.'

• Rules on no reviewing at panel should be enforced more strictly:
  'A strong chair who enforces the rules -- *particularly* that the panellists should not re-referee proposals, but just evaluate referees comments and the responses'

• Panel size:
  'Reduce the number of proposals considered by each panel, so that they can be studied more thoroughly.'

• More continuity in panels:
  'Drop panel turnover, so that a body of expertise can build up over a number of meetings on e.g. whose comments can be trusted, political rivalries etc.'

The response to this question was very positive about the panel structure. The major concern regarding panels is the lack of specific panels, this is more relating to the structure of individual programmes than the peer review process but the concerns have been noted.
7 – Conflicting opinions

This section contains issues that were identified through the survey where there were conflicting views in the research community.

Quality of reviewers

The quality of reviewers selected by EPSRC was brought up as both a positive and negative aspect of the current peer review system. This issue was seen by 312 people as being worth mentioning.

More people were negative about reviewer quality than were positive about. However, it could be worth considering that as only 312 people commented on this issue the other 403 people who gave textual answers may be happy enough with the current method to think it not worth raising.

Reviewing at panel

The power that panel members have at panels was mentioned many times. Some people felt that panel members were too restricted by not being allowed to use their own expertise to help make decisions; others felt that panel members may be using their expertise to review and so the current rules should be enforced more strictly to prevent this.

These numbers are so similar and due to the errors involved with the small sample size (compared to the size of the total community) no conclusion can be drawn either way as to which situation would be more favourable to the research community.
Principal investigator’s opportunity to recommend reviewers
The opportunity for a principal investigator to recommend three reviewers, at least one of which would definitely be consulted, was quite strongly supported. 81 people said that it was a feature that should be retained in question 7.

However another issue raised by 42 people (in various questions) is that they would like to be able to give the names of reviewers they don’t want to review their proposal. This feature is already currently available in the peer review system but not all of the research community are not aware of it.

Anonymity
There were differing opinions on the ideal level of anonymity in the peer review process. As the numbers of people were roughly equal for each view, it is too hard to say which level of anonymity within the reviewing process would be most favourable to the research community in general.
8 - Conclusions and actions

The first major conclusion to be drawn out of these results is that it does not appear that a total overhaul of the peer review process is necessary. However despite the general backing of the process, there were definitely some aspects identified that have room for improvement.

Reviewer forms
- We will redesign reviewer’s forms to make them clearer and to make the links with the assessment criteria more explicit.

Panels
- We will strengthen the guidance for panels, and in particular panel chairs, about avoiding re-reviewing.
- We will be looking at improving the process followed by panels - for instance improving the speaker’s form, increasing feedback to EPSRC staff about reviewer performance, and ensuring the on-going and consistent consideration of principal investigators’ responses.

Peer Review College
A new EPSRC peer review college will be established during 2009. Plans include:
- Increased focus on performance management so that those reviewers who do not meet the required standards will be asked to step down.
- Opportunities for training and networking.

Our aim is to raise confidence in the reviewers and panel members, and to address concerns about ‘rogue reviewers’. 
Annex 1 – Survey

1. What type of organisation do you work for?
   - University
   - Industry
   - Other:

2. Do you apply for EPSRC research grant proposals in your own right?
   - Yes
   - No

3. Do you review EPSRC grant proposals?
   - Yes
   - No

   Approximately how many EPSRC grant proposals do you review each year?
   - 1-3
   - 4-6
   - 7-9
   - 10+

   If you review for other research organisations please state which:

4. Have you attended an EPSRC panel in the last 4 years?
   - Yes
   - No

5. Are you an EPSRC college member?
   - Yes
   - No

6. What three aspects of EPSRC peer review should be retained?

7. What three aspects of EPSRC peer review should be changed?

8. What are your top three ideas for improving EPSRC peer review at the reviewing stage?

9. What are your top three ideas for improving EPSRC peer review at the panel stage?