RESEARCH
COUNCILS UK

ANALYSIS OF THE EXTERNAL COSTS OF PEER REVIEW

A Final Report

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by

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APPENDICES

1 INTRODUCTION

Background

1.01 The Research Councils account for over 80% of total Science Budget expenditure. Unlike research funding from the Funding Councils which takes the form of a block grant to universities, Research Councils award grants for specific research projects on the basis of scientific excellence, **as determined by peer review**. This is done through formal calls for proposals in specific research areas, or in 'responsive mode', where researchers are free to submit proposals in any area they choose. In addition, many Research Councils also fund their own specialist research institutes, and subscribe to international science facilities.

1.02 As part of the process of building an evidence base for policy decisions to be made in the 2007 Comprehensive Spending Review, Research Councils are looking at ways of improving their operation and efficiency. A range of issues are being considered, one of which is *"a review of best practice in the peer review process…. looking at the overall level of resources involved and whether these could be deployed more effectively"*.[1]

1.03 A key part of the review is to investigate the full cost of preparing, refereeing and assessing Research Council grant applications within universities. For example, the time spent by university staff on preparing Research Council proposals and final reports and in acting as referees and panel members. DTZ Consulting & Research was appointed by RCUK to consult university staff about the time they spend on these activities and how they feel the efficiency and effectiveness of the peer review process could be improved[2].

Study Objectives

1.04 The principal purpose of the study is to estimate how much time is spent on peer review of research grants outside the Research Councils. The key requirements are:

- To focus on research grants and in particular on the **responsive mode**
- To analyse time inputs for both **academic and administrative/finance staff**
- To breakdown time inputs by **different aspects of the peer review process** (as set out below):

a)	Preparation and submission of a research proposal.
b)	Postal or electronic refereeing of the proposal.
c)	Prioritisation of proposals by groups of individuals (acting as panels or committees).
d)	An end of project report. Any quality assurance process associated with this should be included as part of the study.
e)	Postal or electronic refereeing of project reports (where applicable)
f)	Panel or committee review of project reports (where applicable)

[1] *Science and Innovation Investment Framework 2004-2014: Next Steps*, March 2006
[2] The Research Councils involved in the study were AHRC, BBSRC, EPSRC, ESRC, MRC, NERC and PPARC.

- To differentiate between **complex and simple grants** in calculating time inputs.

1.05 There was no requirement as part of the study to:

- Breakdown the time spent by **different grades of staff** (professor, lecturer etc)
- Translate time inputs into **cash costs**. This will be undertaken by RCUK.
- Analyse differences in the time spent on peer review **between different Research Councils or different research communities** (due to the small sample size at this level)**.** However, where respondents raise important issues that relate to particular Research Councils, these are highlighted in the report.

Study Approach

1.06 An in-depth telephone survey of academics and administrative/finance staff was undertaken in ten universities during April/May 2006. The basis for selecting universities for inclusion in the study was:

- To achieve a good mix of 'research intensive' and less research-intensive universities. To include at least one post 1992 university.
- To get a good geographical spread of universities across England, Wales, Scotland and Northern Ireland, including at least one university from London.

1.07 In discussion with the RCUK Project Board, the following universities were selected:

- Cambridge
- Cardiff
- Edinburgh
- Essex
- Glasgow
- Hertfordshire
- Manchester
- Queens, Belfast
- University College London
- Warwick

1.08 In each case, our objective was to speak to:

- 9 academics (90 in total)
- 2-3 administrative/finance staff (20-30 in total).

1.09 With respect to the survey of academics, the objective was to speak to at least one academic from each Research Council community per university. Thus, there should be a minimum of 10 interviews per Research Council.

1.10 RCUK provided contact details for academics and administrative/finance staff at these universities. It also sent an introductory e-mail to all the contacts explaining the purpose of the study and encouraging participation in the work.

1.11 The academic sample was constructed to favour people who were known to the Research Councils as both principal applicants and peer reviewers. This was to ensure that information on different aspects of the peer review process could be collected from as many people as possible. It is possible that this approach favoured the inclusion of more established/successful academics in the study. Although this should have no significant effect on the time inputs reported for different aspects of the peer review process, it may mean that views on the effectiveness of the peer review process are slightly more positive than those that would have been expressed by the research community as a whole.

1.12 DTZ Consulting & Research is pleased to report that the response rate to the survey was excellent. Only one or two individuals declined to take part. The grant application and peer review process is clearly an important issue for university staff, and people were pleased to have the opportunity to talk about it. Some people said they had never thought (in detail) about how much time was spent on things like grant applications, and it was useful to think about this.

1.13 Separate questionnaires were prepared for academic and administrative/finance staff (copies have been placed in Appendix 1). Questionnaires were sent to respondents in advance of the telephone interview to allow time for reflection and preparation. Respondents were asked to focus on the time inputs involved in the preparation and peer review of a **conventional** research grant during the interview. However, the survey also sought to determine in broad-brush terms the differences that may exist in preparing and reviewing more **complex** and **simple** research proposals. It is recognised that views on complexity may differ between research disciplines and even between individuals within disciplines. This variation, coupled with the smaller number of respondents who had experience of these types of proposals, means that the survey findings on this matter must be treated with some caution. The following broad generic definitions of different types of research grant were used for the study:

- **Conventional** - A research proposal typically of up to 36 months duration with a limited number of investigators (maybe only one) and involving a limited number (typically one or two FTE) of dedicated research staff members (e.g. post doctoral research assistants and/or PhD students) and with some additional resources for equipment, travel and consumables. Any collaborations within the proposal would be small in number.

- **Complex** - These could include research proposals that have at least one of the following characteristics but typically more than one: a long duration (typically 48 months +); many co-investigators (perhaps with some in other organisations); is multi-disciplinary in approach; where progress is dependent upon multiple collaborations with other organisations (e.g. with industry) or where there are multiple-linked projects working as a portfolio or a centre; have a large dedicated fulltime research team.

- **Simple** - A research proposal that is for a limited period (18 months or less) and with more limited objectives and ambitions. The proposal may, for example, be focused on demonstrating feasibility or may be limited to the support of overseas travel. Often such grants have much more limited staffing associated with them.

1.14 Most respondents expressed time inputs for proposals / reports in person days and time inputs for refereeing / responding to referee comments in hours. Where it was necessary to convert hours to days or vice versa, DTZ used a conversion factor of 1 day = 8 hours. However, no conversion of data was required in most cases. DTZ was careful to ensure that all respondents reported **actual** time inputs on peer review activities. For example, if a

respondent started to review a proposal at the start of the day (for 1 hour) and finished it at the end of the day (for another 2 hours), but spent most of the time in-between doing other things, the actual time input for refereeing the proposal would be 3 hours not 1 day.

1.15 All respondents were assured that information would be treated in confidence and only anonymised responses would be provided to RCUK.

The Fieldwork Programme

1.16 Table 1.1 shows that **93 academic interviews** were undertaken and **27 administrative interviews** were achieved. There is some variation in the number of academic interviews achieved for different universities – mainly due to the number of contact details provided. For example, there were considerably fewer contact details for Hertfordshire University than the other universities in the sample. There is also variation in the number of administrative interviews achieved by university. This is because only one administrative contact was provided for most universities and it was difficult to identify further contacts in some universities.

Table 1.1
Interviews Achieved

University	No. Academic Interviews	No. Administrative Interviews
Cambridge	11	3
Cardiff	12	2
Edinburgh	10	3
Essex	8	1
Glasgow	9	4
Hertfordshire	7	3
Manchester	10	3
Queens, Belfast	9	3
UCL	7	2
Warwick	10	3
Total	**93**	**27**

1.17 A good mix of interviews was achieved across Research Councils. It is important to stress that many respondents had experience of dealing with more than one Research Council and based their responses on their *general* experience of Research Councils as a whole. The most common overlaps seemed to be between MRC/BBSRC, EPSRC/NERC, EPSRC/BBSRC, NERC/ESRC, ESRC/AHRC.

The Rest of This Report

1.18 The rest of this document is structured as follows:

- **Section 2** presents information on the time inputs that go into preparing **research proposals** to the Research Councils, and views on how the efficiency and effectiveness of this process could be improved.
- **Section 3** presents similar information on the **peer review process** for research proposals.
- **Section 4** presents information on the time inputs that go into the preparation and peer review of **final reports**.

- **Section 5** presents findings from the survey of **university administrators and finance staff**.

- **Section 6** considers the extent to which universities have any **internal assessment process** for Research Council grant applications. For example, for quality assurance purposes, to assess strategic fit, to manage the number of grant applications submitted.

- **Section 7** summarises the findings from the study.

2 PREPARATION AND SUBMISSION OF A RESEARCH PROPOSAL

Number of Respondents Providing Information for Different Questions

2.01 Table 2.1 shows the number of respondents who provided information for different questions.

Table 2.1
Number of Respondents

Question	No. of Respondents
Q1 Applied to Research Councils as PI	93
Q2 Time Inputs for Conventional Research Proposal	89
Q3a Time Inputs for Complex Research Proposal	42
Q3b Time Inputs for Simple Research Proposal	53
Q4 Outline Research Proposals	45

2.02 Key points arising from Table 2.1 are as follows:

- Although all respondents had applied to the Research Councils as a Principal Investigator (PI), 2 had submitted proposals only for studentship programmes and 2 had only submitted proposals for complex/simple research projects. Hence, the information on time inputs for conventional research proposals is based on 89 respondents.

- Approximately 50% of respondents provided information on time inputs for more complex research proposals. This does not mean that only 50% of respondents had experience of more complex research proposals. It simply represents the number of respondents who were able and willing to provide information on this. The same point applies for simple research proposals

- Approximately 50% of respondents said they had prepared outline research proposals.

Time Input for Conventional Research Proposals

2.03 Respondents were asked to estimate the **actual** amount of time it took to prepare a proposal for a conventional research project. They were asked to include not only their time but the time of other academic staff involved in the preparation of the proposal. The starting point of the process was the point at which the PI decided to submit a research proposal and the end point was the submission of the proposal to the Research Councils. Thus, research/preparation time (specifically related to the proposal) could be included in the estimate of time provided - as well as the actual amount of time on drafting the proposal. Some observations on the way in which respondents answered this question are as follows:

- Some respondents chose to provide information on the last conventional research proposal they had submitted. Others provided average information for all the recent conventional research proposals they had submitted.

- Respondents generally tried to include the time of all academic staff involved in preparing the proposal but not all were able to do this.

- Some respondents provided a detailed breakdown of time. The main tasks seem to be collecting background information (research/literature review), initial drafting,

circulating drafts for comment and editing/final drafting. Many respondents stressed they had to put considerable time and effort into proposals because the funding environment is so competitive – it is not worth doing unless you do it well.

- A minority of respondents said they had started to spend time gathering preliminary data for proposals so they could demonstrate the feasibility of their proposal. They felt this gave the proposal a better chance of being funded, especially if it was very new/innovative research.

- Some respondents commented that although less information is required now than in the past, it can be just as time-consuming to write a concise proposal as a lengthy one.

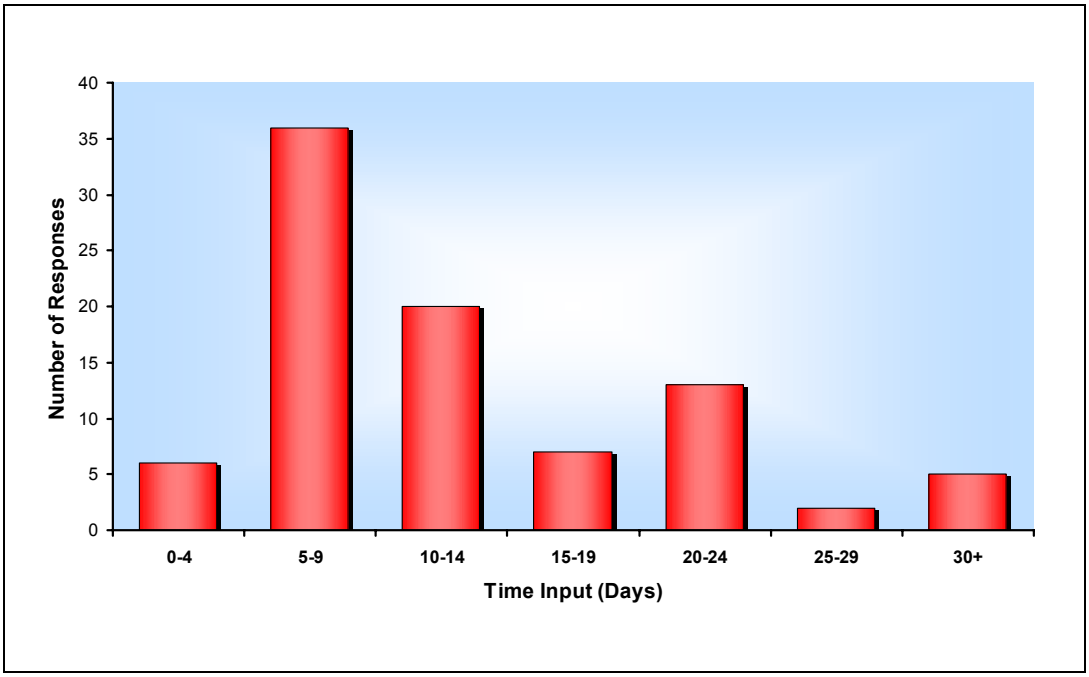
- Some respondents were concerned about not giving too much away in their proposal. "*You need to write the proposal in such a way that you are convincing but that you do not give too much away because potential competitors will be reading your proposal as part of the peer review process. It is a difficult balance to achieve*."

2.04 It is important to stress that the time inputs reported for conventional research proposals below (and for all the other activities associated with the peer review process in this report), are not necessarily being undertaken as part of the standard working day. Some respondents commented that the average university academic works 55+ hours/week and senior academics may work 70+ hours/week. It is likely that a considerable amount of time spent on research proposals (and peer review generally) is outside the normal working day during evenings/weekends. Thus, the opportunity cost of time spent on research proposals (and peer review generally) is probably partly time that could be used for other university work but also partly less personal time for academics outside work.

2.05 It is also important to stress that the time inputs do not necessarily reflect recent experience of preparing a research proposal. Some respondents may have submitted their last research proposal a few years ago when the process was less streamlined than it is now. This point also applies to other activities associated with the peer review process in this report.

2.06 Figure 2.1 shows the time input reported by respondents to prepare a proposal for a conventional research project (shown in person days).

Figure 2.1
Time Input for Preparation of Proposal for a Conventional Research Project (Number of Days)



2.07 Average time inputs can be calculated in two ways. First, using the arithmetic mean, also called the average, which is obtained by calculating the sum of the responses and dividing it by the number of respondents. Second, by using the median, which is the mid-point where half the responses are on one side and half the responses are on the other side. The median is less sensitive to extreme responses than the mean and this makes it a better measure than the mean for highly skewed distributions.

2.08 The average time inputs in this report are based on the arithmetic mean unless stated otherwise. In some cases, the mean is distorted considerably by a small number of extreme responses. Then we have suggested using the median as a better measure of average time inputs.

2.09 The average time input to prepare a conventional research proposal is 12 days (based on the mean). The median is 10 days so in this case the mean and median are quite similar.

Average Time Input for Conventional Research Proposal[1]	**12 Days**

2.10 The majority of respondents spend between 5-14 days on a proposal for a conventional research grant. However, there are some people who spend considerably longer than this. There is no significant variation in time input by Research Council or subject area – although the sample size is too small for reliable analysis of this kind. From undertaking the survey, DTZ's view is that the main reason for variation in time input is probably the personality of individuals – some people take longer than others on proposals, reports etc.

[1] Based on the mean. The median is 10 days.

Time Input for More Complex and Simple Research Proposals

2.11 There is enormous variation in the time inputs reported for more complex research proposals. This is because:

- The nature of projects described as 'complex' can range from projects, which are reasonably self-contained (although they are longer and more collaborative in nature than conventional projects) – to huge infrastructure projects.

- It is more difficult for respondents to provide an accurate estimate of time spent on such proposals. First, because it is more difficult to recall all the work associated with more complex projects. Second, because they cannot account fully for the considerable amount of time that will have been spent by other academic staff (outside their team) on the proposal. It is usual for projects of this kind to have many investigators and collaborators across a number of universities.

2.12 For the reasons above, DTZ has not calculated an average time input for complex research proposals. DTZ is not confident that the data are representative and it could be misleading. Clearly, this is an area where more detailed research is required. However, DTZ can provide a rough estimate of the additional time required for complex research proposals from the survey. This has been done by excluding extreme responses where respondents reported time inputs for complex research proposals of 100+ days, and looking at the average percentage increase in time inputs for complex proposals over conventional proposals for all remaining responses.

2.13 On this basis DTZ has estimated that proposals for complex research grants require 140% more time than for conventional research grants – conventional proposal time input + 140%. Thus, the average time input for a complex research grant proposal is around 30 days (12 days + 17 days). **However, this is a very approximate estimate**.

2.14 There is less variation in the time inputs reported for simple research proposals. The average time input for more simple research proposals is 5 days[2]. This is more than DTZ would have expected (for something like a travel grant) and may reflect respondents using their own definition of a more simple grant than the one provided by DTZ in the questionnaire. However, a number of respondents said it was nearly as much work to prepare a proposal for a simpler project as for a conventional one.

Average Time Input for Complex Research Proposal (VERY APPROXIMATE ESTIMATE)	**30 Days**
Average Time Input for Simple Research Proposal	**5 Days**

Time Input for Outline Research Proposals

2.15 Again, there is considerable variation in time inputs for outline proposals reported by respondents as shown in Table 2.2.

[2] Based on the mean. The median is 4.5 days so they are quite similar.

Table 2.2 **Time Inputs on Outline Proposals**	
	No. of Respondents
1-2 Days	23
3-5 Days	14
5-9 Days	3
10+ Days	5
	45

Mean	**4 Days**
Median	**2 Days**

2.16 In this case the average time input, as calculated by the mean, is skewed by a small number of extreme responses in excess of 10 days. Thus, the median may be a better measure of the average time input.

Views on the Research Councils' Grant Application Process

2.17 Respondents were asked to rate the efficiency and effectiveness of the Research Councils' grant application process on a scale of 1 (excellent) to 5 (very poor). The findings from the survey are shown in Figure 2.2 and show that generally respondents feel the application process is good when compared to other funding agencies in the UK and elsewhere. A number of respondents mentioned that the UK Research Councils' grant application process compares favourably with the process for research funding in the EU and the US (National Science Foundation and National Institutes of Health). These organisations are perceived to have more bureaucratic systems, which generate a lot more paperwork and demands on time than the UK system. A number of respondents commented that you almost have to write a book for the US research funding agencies. The US system was, however, commended for working with applicants in a more collaborative way and providing better feedback.

Figure 2.2
Respondent Views on Grant Application Process

2.18 Generally, the administrative efficiency of the grant application process is felt to be very good especially with the introduction of Je-S (see later) and the ratings in Figure 2.2 reflect this.

2.19 A number of respondents felt that the overall effectiveness of the grant application process could be improved. A summary of the issues raised by respondents is provided below:

- The most frequent comment on the grant application process was that it took too long. Many respondents said it could take in excess of six months and that other funding agencies were quicker.

- Research Councils should publish information on recent grant success rates (across different research areas) so applicants can make a more informed judgement about whether it is a good use of their time to apply for funding.[3]

- There was concern about the amount of time wasted in preparing unsuccessful proposals. Some respondents accepted that this was an inevitable consequence of competition for research funding – and that competition was important to produce the highest quality research. However, others said that there should be a strategic allocation of funds for top research departments to keep them at a truly international standard of competitiveness - it was inefficient to have to bid for funding all the time. Two respondents mentioned the Canadian system where more research funding is channelled into institutions. However, the disadvantage is that individual high-flyers may not get the money they deserve.

[3] DTZ is aware that the Research Councils have recently started to publish information on success rates so the issue is probably ensuring effective dissemination of this information.

- One EPSRC respondent mentioned 'portfolio grants' where a person/team with consistently good ideas and a proven ability to deliver gets a certain amount of money every so often that they do not need to bid for. It was highlighted as an idea that could be developed further.

- Other respondents said larger and more flexible grants could help to improve efficiency and effectiveness. *"My large grant (£3.5 m over 5 years) has revolutionised how we work. It has been spectacularly more productive than the previous bolting together of small conventional grants. By their very nature conventional grants are too restrictive and in the end only dilute research effort in the UK by spreading funding too thinly"*.

- Related to the above point, there should be more longer-term or rolling grants to provide greater continuity and reduce the time spent on preparing research proposals. At the moment there can be periods when one grant is coming to an end and you are trying to secure another – when research staff will leave. It is very inefficient to lose a researcher that has built up knowledge and expertise because of the short-term funding environment.

- Some respondents felt that the Government and the Research Councils should provide more direction on the type of research they want to fund. Then at least you would know that your proposal fitted with what the funding agencies wanted to fund – it could help to reduce wasted time on unsuccessful proposals. In the US, the research funding agencies have a greater role in setting the scientific research agenda. According to some respondents, this enables the grant application process to be more dynamic and interactive. There is more opportunity to work-up the proposal with the funding agency because everyone is working to the same agenda. However, other respondents felt that directive research was often poorly conceived – that it was too populist. They felt the 'bottom-up' / responsive approach was better as it came from academics themselves and was more objective/independent.

- Greater use of outline proposals for responsive mode research grants should be considered. (This was one of the most frequent comments made along with the length of time to process applications). Outlines seem to be used fairly extensively by other funding agencies – Leverhulme Trust, Wellcome Trust, Royal Society, National Endowment for Science, Technology and the Arts. Also the national research funding agency in Ireland according to one respondent. The outline could be 2-3 pages summarising what the idea is, what is its unique selling point, some indication of the level of resource required and a brief overview of method. It is recognised that it could be difficult to make outline proposals work for response mode grant applications – because more explanation of the science needs to be provided than for directed mode applications where everyone is working in the same area. However, it would certainly help to save a lot of time by filtering out projects that are unlikely to be funded at an early stage and ensuring that applicants who prepare full proposals have a greater chance of success (and perhaps an opportunity to interact more closely with referees). A grant application process that involved more filtering and more joint-working could be more efficient.

- One respondent mentioned that the RAE process puts pressure on academics to submit proposals because one of the criteria on which departments are assessed is the amount of research funding they generate. If this was changed it could help to reduce the amount of time wasted on unsuccessful proposals. Another respondent said you need to change the culture in universities of all academics being expected to

submit applications. He felt there could be more emphasis on universities themselves sifting out the best applications. In his opinion, this was preferable to the first-stage sifting process used by some Research Councils (such as NERC) where an application could be rejected on the basis of a relatively small number of reviewers who may not even be experts in your research area. This was supported by another respondent who suggested there should be some internal sifting mechanism at universities for the very popular grant fields.

- The grant application process does not exclude risk-taking but some respondents felt it might work against it. People are inclined to submit bids they feel the research community will be receptive to. There may be a case for a programme of modest grants where risk-taking is positively encouraged. This could help researchers to undertake feasibility/exploratory work prior to submitting a research proposal.

- Some respondents felt that the grant application process favours established researchers and departments. This makes it difficult for young researchers and academics from the new universities to succeed. One respondent asked whether there should be a New Investigator Scheme, which could be specifically open to, or aimed at, the new universities to tackle this. It should be stressed that the views of this group are probably not well represented in this study since the sample was drawn mainly from people who were known to the Research Councils.[4]

- Academic research is increasingly spanning disciplines. The Research Councils' grant application process needs to respond to this and accommodate multi-disciplinary research more easily.

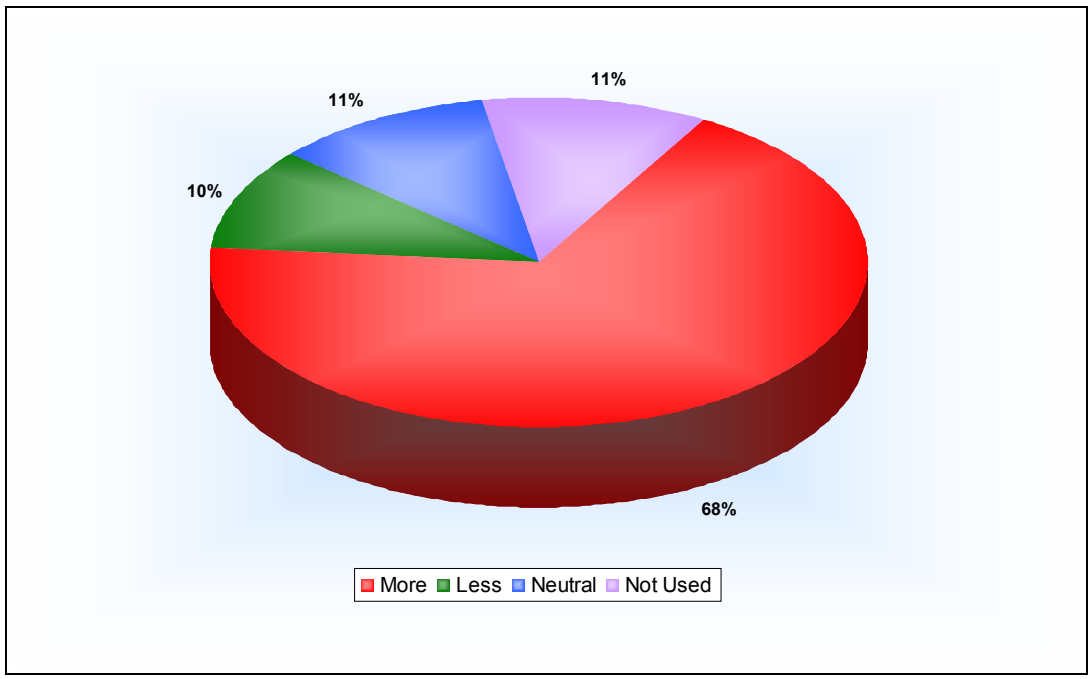
- Finally, it is important to get good feedback on your application. Funding agencies in the US were highlighted as providing better feedback on proposals than in the UK.

Electronic Submission of Grant Applications

2.20 The Je-S system was introduced approximately two years ago (although MRC had electronic submission of grant applications before this time). The respondents who had used Je-S were generally positive about it. A clear majority believed that it had improved the efficiency of the grant application process as shown in Figure 2.3.

[4] DTZ is aware that some Research Councils have specific schemes designed for new investigators or first grant schemes. DTZ is also aware that track record is often not an explicit assessment criteria used by the Research Councils, but is rather used as a more contextual consideration.

Figure 2.3
Whether Je-S Has Made the Grant Application Process More or Less Efficient



2.21 The main advantages of Je-S, as reported by respondents, are:

- It makes it easier for joint working on proposals
- It makes it easier to work on proposals remotely – which is very useful for people who travel a lot.
- No longer have to photocopy and courier proposals – which was time-consuming and expensive.

2.22 Where respondents were less positive about Je-S, it was sometimes tied up with the recent introduction of full economic costing which has created more work.

3 PEER REVIEW OF RESEARCH PROPOSALS

CONTEXT

3.01 The peer review process tends to be undertaken in two stages. First, individual research proposals are refereed by researchers specialising in the research area – typically by mail or e-mail. Second, research proposals are further reviewed, moderated and prioritised by a panel of academics.

3.02 Although the peer review process is broadly similar across the Research Councils – there are some differences in how individual Research Councils approach the process. It is important to be aware of these since they help to explain some of the information provided by respondents. An overview of each Research Council's peer review process for research proposals is provided in Appendix 2. Key points are summarised below:

Refereeing

- Most applications are sent to between 3-5 referees.
- AHRC, EPSRC, ESRC, NERC and MRC use peer review colleges to different extents to support the peer review process.
- Some Research Councils ask panel members to help select referees (BBSRC and PPARC)
- Some Research Councils normally seek at least one overseas referee (NERC and MRC).
- There is a two-stage refereeing process for NERC applications. First, members of the peer review college referee applications with about 40% being sifted out at this stage. The remainder are refereed again by academics outside the peer review college, including at least one overseas academic.
- Some Research Councils use streamlined procedures for certain application types e.g. small grants.

Feedback of Referee Comments to Applicant

- Feeding back referees' comments is standard practice for all the Research Councils with the exception of ESRC, which only does this for larger applications in excess of £500,000.
- Across the Research Councils, applicants typically have a right to respond to referee comments if their proposal is going to Board / Panel.

Sifting-Out Applications Prior to Panel Assessment

- There is considerable variation in the extent to which Research Councils sift-out applications prior to panel meetings.
- NERC aims to sift out 50% of applications but tends to achieve about 40%. MRC sifts applications based on referees' comments and works on the assumption that

applications totalling 2-3 times the value of funds to be awarded at the meeting will be assessed by the Board / Panel.

- BBSRC and PPARC take all applications submitted to panel meetings.

- EPSRC and ESRC sift-out some applications on the basis of referee reports but this tends to be a relatively small proportion – about 10-15%.

Operation of Panel Members and Panel Meetings

- It is usual for an application to be assigned to two panel members. This process helps to ensure a balance of views and reduces any risk associated with decision-making. It also helps mitigate the peer review burden faced by panel members. The identified panel members are responsible for presenting the application to the panel and will have a major say in how it is scored since they will be most familiar with it.

- Some Research Councils have taken this a step further with the two panel members assigned to the application, reviewing and scoring it in advance of the panel meeting. The full panel reviews all the scores but there is a focus on discussing those on the borderline for funding.

- All the Research Councils have different panels for different research areas, with the exception of ESRC, which has a Research Grants Board that determines all standard (or conventional) grants.

- The precise role of the panel may vary between Research Councils. EPSRC stresses that panel members should work mainly on the basis of referees' comments and their role is to moderate, prioritise and ensure consistency in the way that awards are determined. In other Research Councils, panel members may be more actively engaged in determining the detailed scientific merit of the proposal.

3.03 This is an overview of some of the main differences in the peer review process between Research Councils. It is not part of DTZ's terms of reference to assess if some Research Councils have a better peer review process than others. The information does, however, provide useful contextual information for interpreting some of the comments made by respondents during the survey.

THE SURVEY FINDINGS

Number of Respondents Providing Information for Different Questions

3.04 Table 3.1 shows the number of respondents who provided information for different questions.

Table 3.1
Number of Respondents

Question	No. of Respondents
Q14 Acted as a Referee for a Research Proposal	91
Q15 Time Input to Referee Conventional Research Proposal	90
Q16a Time Input to Referee Complex Research Proposal	55
Q16b Time Input to Referee Simple Research Proposal	41
Q5 Responding to Referee Comments on Research Proposal	71
Q20/21 Acted as a Panel Member	64

3.05 Key points arising from Table 3.1 are as follows:

- The majority of respondents have been a referee for a Research Council research proposal. About half have experience of refereeing more complex and more simple research proposals.

- The majority of respondents have experience of responding to referee comments. Those who did not respond to this question tended to be ESRC respondents – since ESRC does not feedback referee comments to applicants (except for very large applications). There is no obvious reason why other people had not received referee comments – except perhaps that this process had not been introduced the last time they submitted an application or they could not remember it.

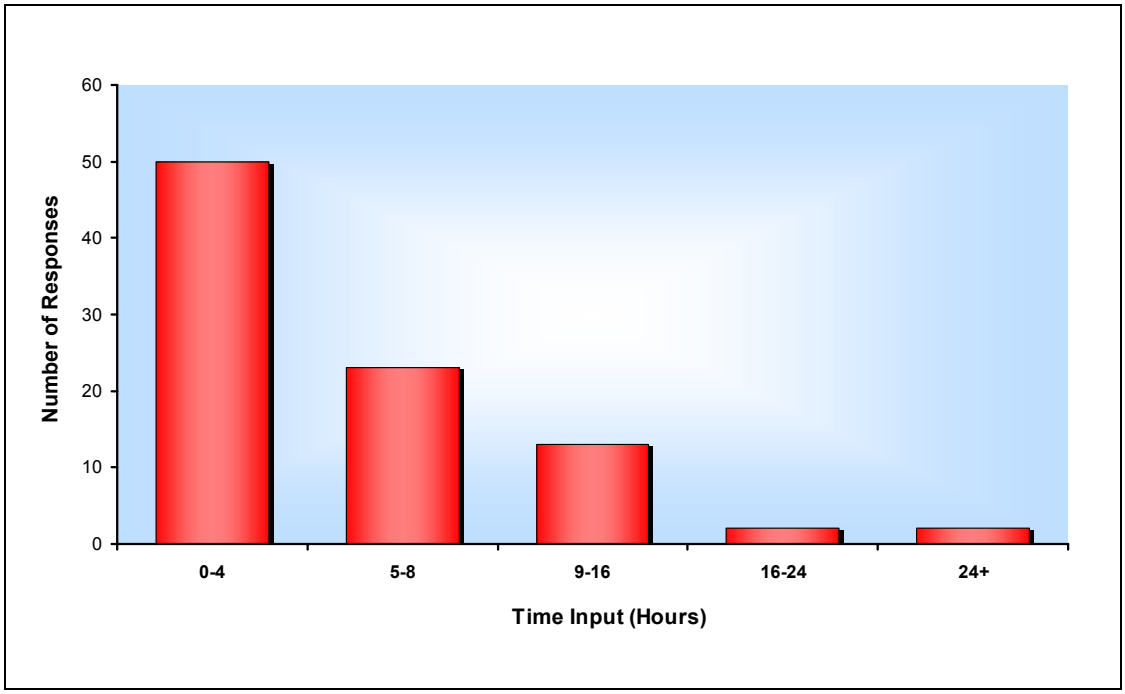
- About two thirds of respondents had experience of serving on a Research Council panel. This means the time inputs for panel assessment have a reasonable sample base.

3.06 As for research proposals, it is important to stress that the time inputs reported for peer review activities are not necessarily being undertaken as part of the standard working day. An impression was gained that many of these activities take place in respondent's personal time (although there is no hard evidence to substantiate this).

Time Input for Refereeing Conventional Research Proposals

Respondents were asked to estimate the **actual** amount of time it took to referee a proposal for a conventional research project. The findings are shown in Figure 3.1.

Figure 3.1
Time Input for Refereeing a Proposal for a Conventional Research Project (Number of Hours)



Average Time Input for Conventional Research Proposal[1]	**4 Hours**

3.07 The majority of respondents spend about 4 hours refereeing a proposal for a conventional research project**.** In this case, **the median has been used to calculate the average time input** because the mean is skewed considerably by a small number of extreme responses.

Time Input to Referee More Complex and Simple Research Proposals

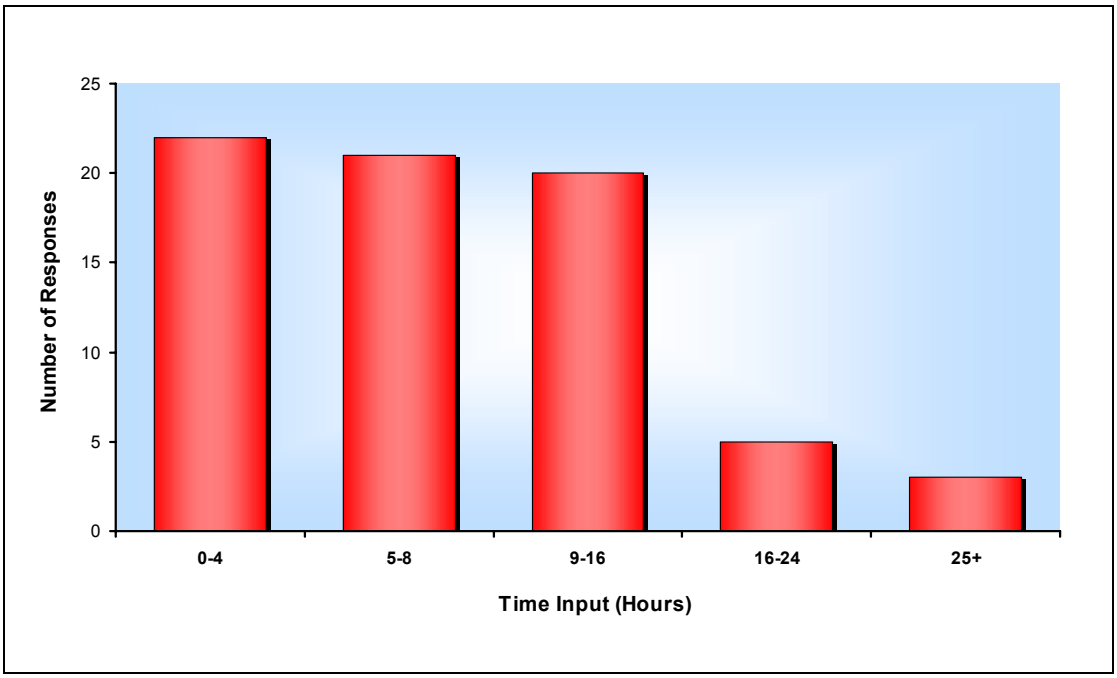
3.08 Average time inputs to referee more complex and simple research proposals have again been estimated using the **median** (for the reasons explained above) and are shown below:

Average Time Input to Referee Complex Research Proposal[2]	**8 Hours**
Average Time Input to Referee Simple Research Proposal[3]	**2 Hours**

Time Input to Respond to Referee Comments on Research Proposals

3.09 The majority of respondents had experience of responding to referee comments. Figure 3.2 shows how much time respondents spent on this.

Figure 3.2
Time Input for Responding to Referee Comments
(Number of Hours)



Average Time Input for Responding to Referee Comments[4]	**10 Hours**

[1] **Based on the median. The mean is 7 hours**. In this case, the median is considered to be a better measure of the average time input because the mean is skewed by a small number of extreme responses.
[2] Based on the median. The mean is 11 hours.
[3] Based on the median. The mean is 3 hours.
[4] Based on the mean. The median is 8 hours so they are quite similar.

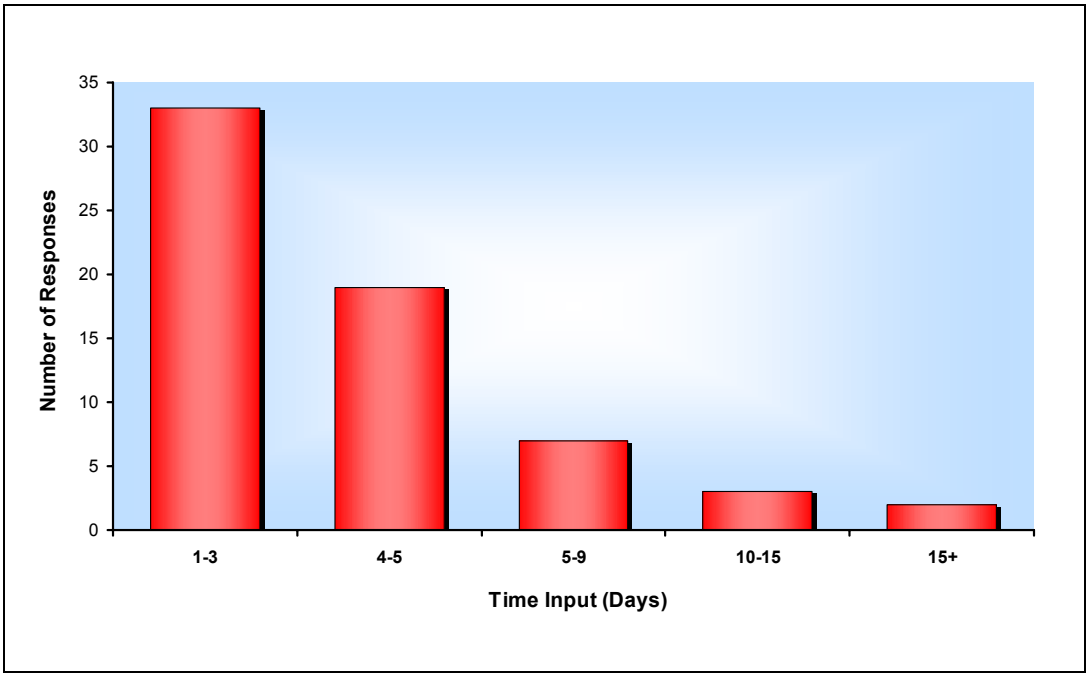
3.10 Some of the variation in time inputs is likely to reflect different Research Council guidelines for the length of feedback.

3.11 It is clear from the comments of respondents that they value the opportunity to respond to referee comments. Respondents treat the process very seriously because they know it will affect whether or not the application is successful. Although this adds to the time that people spend on research proposals and peer review, it is definitely something that the majority of academics want to do.

Time Input for Panel Members

3.12 Respondents who had served on Research Council panels/committees were asked to estimate how much time it took to prepare for a meeting and to complete any post-meeting tasks. They were asked to exclude time spent travelling to, and attending, the meeting itself. The responses are shown in Figure 3.3.

Figure 3.3
Time Input Involved in Preparing for a Panel Meeting (Number of Days)



Average Time Input for Panel Meeting[5]	**4 Days**

3.13 It is clear that the majority of respondents spend between 1-5 days on activities associated with panel meetings (excluding attendance itself). Those reporting larger amounts of time were a small minority who indicated they read all proposals submitted to the panel in considerable detail or whose last experience of a panel had been a number of years ago when it was perhaps more usual for panel members to read a greater proportion of proposals in such a level of detail.

[5] Based on the mean. The median is 3 days so they are quite similar.

3.14 Respondents who served on BBSRC and PPARC panels reported slightly greater time inputs than respondents serving on other panels. This probably reflects the fact that they are involved in selecting referees for proposals assigned to them and included this in their estimate of time for being a panel member.

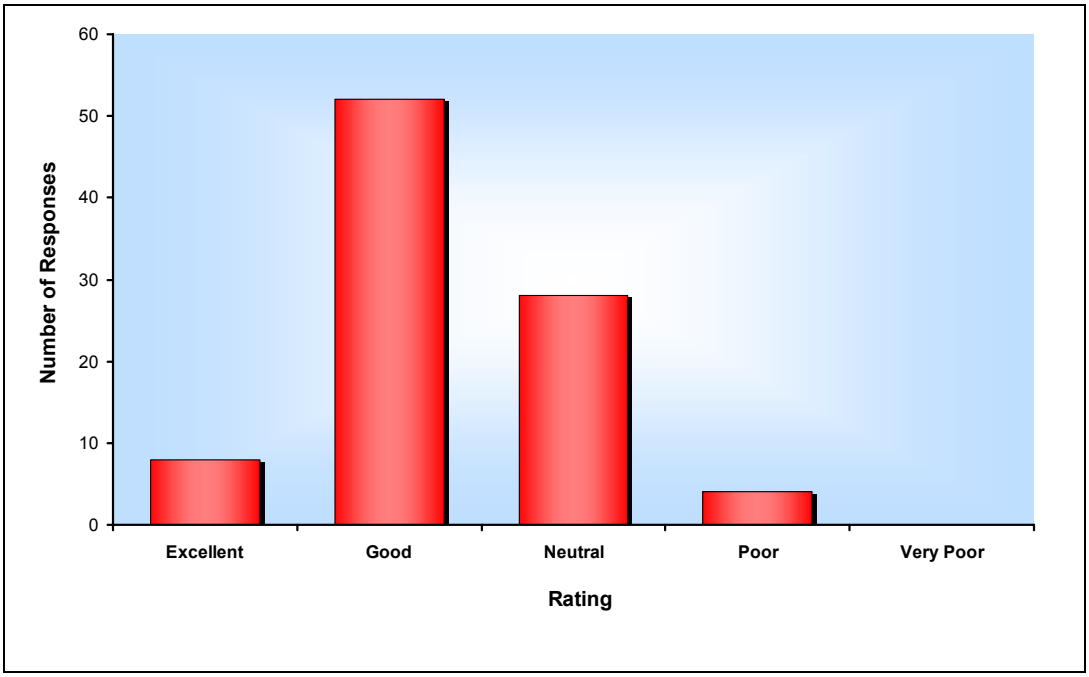
3.15 Five respondents provided information on their experience of chairing panels. They all said that this involved a considerable amount of additional work because you had to read all the research proposals and supporting documentation. **Based on these five responses the average time input for chairing a panel is 9 days**.

3.16 Three of the nine PPARC respondents volunteered information on their experience of being involved in **PPARC visiting panels**. In each case they said the time input this involved (excluding the visit itself) was one day.[6]

Views on the Research Councils' Peer Review Process

3.17 Respondents were asked to rate the efficiency and effectiveness of the Research Councils' peer review process on a scale of 1 (excellent) to 5 (very poor). The findings from the survey are shown in Figure 3.4.

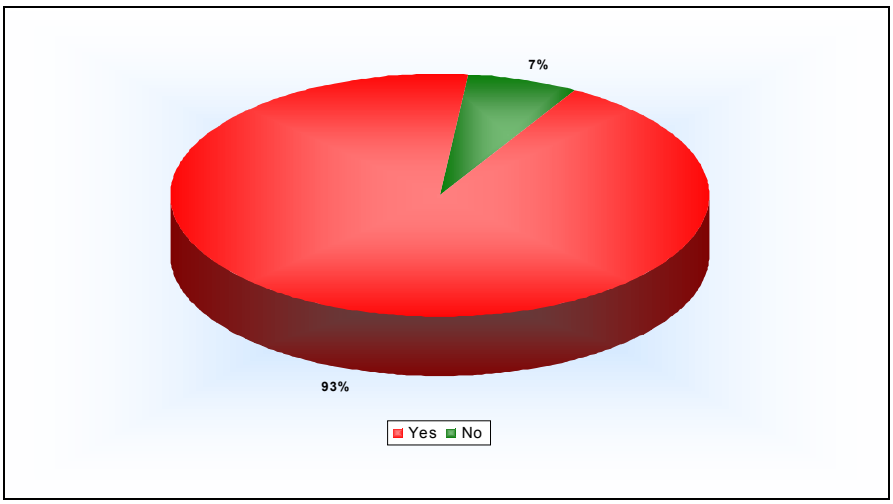
Figure 3.4
Respondent Views on Peer Review Process



3.18 Respondents were also asked whether they felt the peer review process was worthwhile: whether the benefits justified the amount of time and effort involved. The response to this question is shown in Figure 3.5.

[6] PPARC has collected separate data on this part of the peer review process suggesting a somewhat higher figure

Figure 3.5
Respondent Views on Whether the Peer Review Process is Worthwhile



3.19 The principle of peer review is supported strongly by academics. Many said that although the peer review process had its faults, they could not think of any other system that would be better for allocating research funding. It may be laborious and take a lot of time but it is worthwhile because the process:

- Is open, transparent and fair
- Generally arrives at the right decisions and funds the highest quality research.

3.20 Despite the general support for the principle of peer review – there is a lot of unease about how well the peer review process is operating in practice. The effectiveness of the peer review process hinges on the quality of referees and there was a lot of feedback on this as summarised below:

- Many respondents are concerned about the quality of referee reports. This is not just from the perspective of applicants (who might have a grievance if their application was not successful) but also from the perspective of panel members.

- One of the most frequent issues raised by respondents was whether referees have the right expertise to assess an application properly. Programme managers may not always select the most appropriate people, which is why it makes sense to involve applicants and panel members in selecting referees. Alternatively, the Research Councils need to invest in developing better referee databases.

- Another problem is that programme managers may start off with the best referees but if they do not respond, they have to start working down a list of people who may know less about the research area. This is a real issue because there are more demands on academics and there is less time to respond to peer review requests. It is important to get a good response rate to referee requests and this should be something that Research Councils monitor. Quality can be diluted through low response rates.

- There are various things that could be considered to improve referee response rates. Some respondents felt that there should be some form of payment to either academics themselves or their departments to encourage a prompt response to peer review requests.[7] Others felt a lot could be achieved through making referees feel more valued and appreciated. The peer review colleges appear to be a positive development in this respect and were commended by many respondents.

- The impression from respondents is that refereeing is taken seriously. As highlighted earlier academics generally support the peer review system and want it to work – and get a lot of valuable knowledge from it themselves. However, increasingly they cannot put all the time that is needed into it. Inevitably, this impacts on quality.

- Greater use of overseas referees could be considered for specialised areas of research where there are few UK experts. Use of overseas referees may also give a better indication of the international competitiveness of proposals.

3.21 Other points that were raised about the refereeing process are as follows:

- Referees take their responsibilities seriously, but sometimes are too busy / under too much pressure to do the thorough job they would like.

- Sometimes there is a large difference in the number of referee reports for applications going to the same panel

- A difficult issue is that some groups of people tend to be more critical than others and this can affect the outcome of proposals. For example, one respondent said that reviewers from outside academia tend to be more critical. Another said that international referees tend to be more positive partly because they are not so familiar with the criteria for assessment.

- A couple of respondents felt there was a case for sending anonymised proposals to referees because it was felt that people are influenced by the reputation of a researcher / department – when the focus should be on the quality of the science. However, it is reasonable that referees should be able to take account of the track record of the applicant. Perhaps the solution is to make it easier for young, relatively unknown researchers to get established.

- A couple of respondents complained about late referee comments. First, because it is inefficient to have to respond to comments in a piecemeal way. Second, because late comments often seem to be the most negative. There should be a deadline, which is adhered to.

- There should be more electronic communication for peer review as well as research proposals. In particular, to respond to referee comments where deadlines can be short and you may be out of the country. [8]

- Research Councils should not limit themselves to referees who are part of their specific community. For example, there may be a case for approaching physicists for

[7] Some Research Councils do pay for peer review activity. Some other Research Councils may pay for specific tasks but this is not the norm.
[8] DTZ is aware that MRC has had an electronic peer review system since 2000 and other Research Councils are developing a similar system.

some NERC proposals. This is also an issue for multi-disciplinary research, which is becoming more common.

- Sometimes you may not want rivals to see your proposal because you do want to give away your ideas, but you cannot be sure this will not happen as part of the peer review process. The Research Councils have systems that try to accommodate such requests but no commitment is given.

- Finally, a number of respondents highlighted benefits from being involved in the peer review process. It helps people to improve the quality of their own applications and it makes you see that although the process is not perfect, it is rigorous and fair.

3.22 Respondents also raised some concerns about the operation of panels. These are summarised below:

- Panel members often feel they are trying to split hairs when selecting proposals around the cut-off point. The criteria for grading is fine but there is a problem about the grading of applications within groups. For example, you may have a panel where applications are graded from A5, A4, A3, A2, A1 to B. Somewhere in A4 tends to be the cut-off point but how do you distinguish between them? Could there be more rigorous criteria at this level? Or is this just not feasible?

- Many respondents felt that feedback from panels could be improved. Others urged the Research Councils to be more open in the feedback they provide. Often the main reason for rejection is that insufficient funding is available – there is nothing really wrong with the proposal itself. If this is the case the Research Councils should just say this. A number of people mentioned that review panels in the US are better at providing good feedback.

- Some respondents who had experience of being panel members said they get the impression that many people only look at the applications, which have been assigned to them in any depth. This can mean it comes down to only two people grading the application. However, it is probably unrealistic to expect panel members to look at all applications unless there is a lot more filtering of proposals at an earlier stage.

- A couple of respondents suggested that applicants should be invited to present proposals at panel meetings and answer questions. Obviously, this could not be done for all proposals but there would seem to be some merit in this for large projects.

- Some respondents wondered whether further streamlining of peer review could be achieved in line with the size and type of proposals.

- There were specific comments about EPSRC panels. A number of respondents dislike the current approach where they have to base the assessment mainly on referee reports and cannot use their judgement as much as they would like. This can be very frustrating particularly where you feel you have a better understanding of the research proposal than some of the reviewers. However, there is a balance to be struck as you would not want panel members to be all-powerful. Other people commented on the lack of continuity in panel membership – the fact that EPSRC has non-standing panels, which is different from some other Research Councils. This can be a disadvantage as panel members have less experience and no historical frame of

reference to assess proposals. Should at least some panel members be retained from meeting to meeting?[9]

- In relation to ESPRC panels (and others) respondents said pre-scoring had made the panel assessment process more efficient. "*What happens now is that scores are sent in ahead of time and then the applications are ordered so that the best are looked at first. This is better than sorting applications say alphabetically or according to processing date because you then spend much less time on those applications that are clearly worthy of approval and those that are not. This means there is more time for serious discussion of the ones that really need it – those in-between. I suppose there is a slight disadvantage in that if an application had been given a low score unfairly it is harder for it to advance during the panel. But generally I think the panel system is very fair*".

- There were also specific comments about the ESRC's Research Grants Board. ESRC does not have panels for different research areas. Instead, it has a Research Grants Board comprising 25 people across a range of disciplines that determines all grant applications. Some respondents said this meant the Board was sometimes reviewing proposals outside its expertise (although it is recognised that proposals are reviewed by specialist referees).

3.23 Other issues raised in relation to peer review are reported below. These are comments made by respondents and it may be the case that the Research Councils are already doing some of these things:

- More clarity on re-submission. Some Research Councils do not encourage re-submission but there is a case for encouraging re-submission of proposals that have been graded highly but rejected due to insufficient funds. Also sometimes you see a proposal that has the potential to be great but has a major flaw, such as the budget is far too high. The panel should be able to suggest major changes to the proposal and invite resubmission.

- More electronic communication of information relating to the peer review process – referee reports and so on.

- Removal of very large grants (£1m+) from the mainstream responsive mode – with separate procedures for dealing with them.

- Related to the above point, could there be a more streamlined peer review process for smaller grants?

- There should be advance communication with referees – currently papers can arrive on your desk without warning. A brief e-mail about the paper and confirming availability to respond by the deadline would be helpful.[10]

[9] DTZ note that EPSRC aim to have at least one panel member who will be at consecutive meetings and often a member from one panel will be asked to act as chair for the subsequent panel. PPARC uses a combination of core panel members, who serve a three year term, and panel members who serve on the panel for one round only (who are selected on the basis of the particular mix of proposals submitted for that round and the need to find appropriate expertise).

[10] DTZ are aware that some of the suggestions recorded in this section are, to a greater or lesser extent, already employed within the Research Councils. For example, ESRC have different procedures for small grants. MRC checks ability to respond to deadlines using a 'check-willing' e-mail from the EAA system etc.

4 PREPARATION AND PEER REVIEW OF FINAL REPORTS

CONTEXT

4.01 There are significant differences in the way in which individual Research Councils deal with final reports. It is important to be aware of these since they help to explain some of the information provided by respondents. Full details of the way in which each Research Council deals with final reports is provided in Appendix 3. Key points are summarised below:

- There is no peer review of NERC or MRC final reports. Several years ago NERC switched to a short reporting format and stopped sending reports out for peer review. They are now assessed by programme managers internally. MRC currently uses the final report mainly as an accountability trigger for the final payment. MRC is exploring how best to use the information provided in final reports to inform future funding decisions.

- The remaining Research Councils send final reports to referees. Some try to ensure the report is sent to panel members involved in the original application (BBSRC, EPSRC).

- After referee comments are received some Research Councils score/assess final reports internally (e.g. ESRC, PPARC).

- Other Research Councils (EPSRC, BBSRC and AHRC) do involve panel members in scoring final reports with, or without, supporting referee comments.

THE SURVEY FINDINGS

Number of Respondents Providing Information for Different Questions

4.02 Table 4.1 shows the number of respondents who provided information for different questions.

Table 4.1
Number of Respondents

Question	No. of Respondents
Q11 Prepared a Final Report	80
Q11 Time Input to Prepare a Conventional Final Report	79
Q12a Time Input to Prepare a Complex Final Report	20
Q12b Time Input to Prepare a Simple Final Report	22
Q17 Refereed a Final Report	54
Q18 Time Input to Referee a Conventional Final Report	53
Q19a Time Input to Referee a Complex Final Report	19
Q19b Time Input to Referee a Simple final Report	13

4.03 Key points arising from Table 4.1 are as follows:

- 80 respondents had experience of preparing a final report. We would have expected this to be higher but some respondents were undertaking their first grant and had not prepared a report yet. Others last worked on a grant a number of years ago and perhaps could not remember preparing the report.

- Only about 20 respondents had experience of preparing a final report for a more complex or simple project so the sample base for this data is quite low.

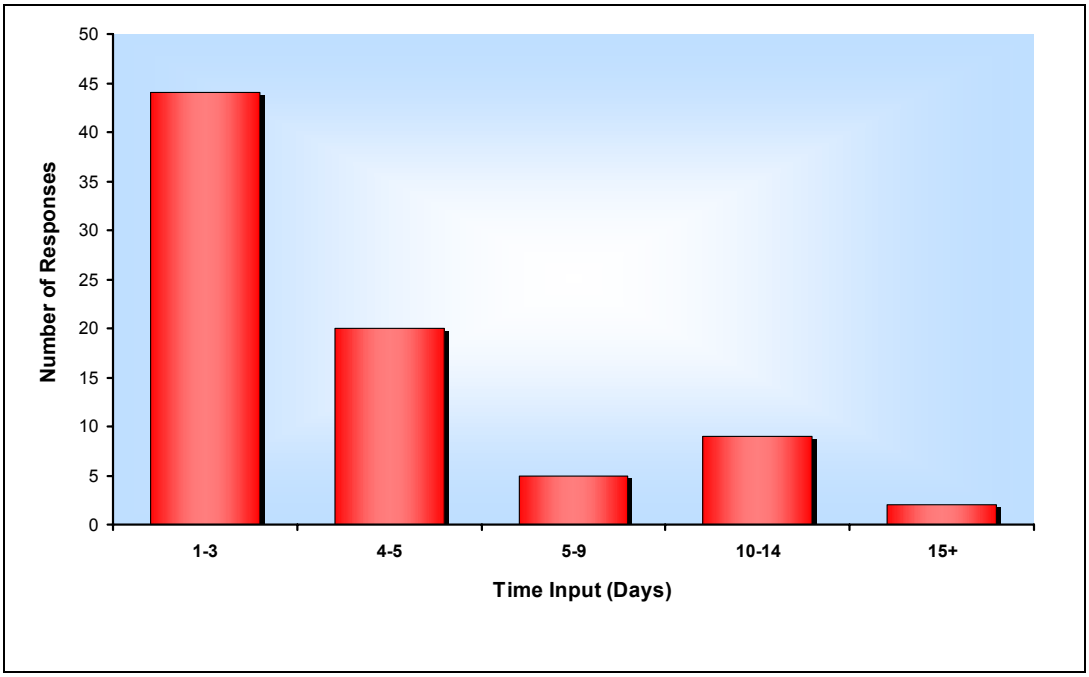
- 54 respondents had experience of refereeing a final report. This is considerably lower than for refereeing a research proposal and reflects the fact that there are far fewer final reports produced than research proposals.

- The data on time inputs for refereeing a final report for a more complex or simple project has a very small sample base.

Time Input for Preparing a Final Report for a Conventional Research Project.

4.04 Respondents were asked to estimate the **actual** amount of time it took to prepare a final report for a conventional research project. They were asked to focus specifically on the final report as opposed to the final expenditure statement and to take account of all academic staff involved in the process. The findings are shown in Figure 4.1.

Figure 4.1
Time Input for Preparing a Final Report for a Conventional Research Project (Number of Days)



Average Time Input for Conventional Final Report[1]	4 Days

4.05 The majority of respondents spend between 1-3 days preparing a final report. However, a minority of respondents spend in excess of 10+ days, which is one of the reasons for the mean being 4 days for all respondents. There are different reporting guidelines across the Research Councils and this may explain why some people take longer than others to prepare final reports. ESRC respondents seem to spend more time on reporting than average, perhaps because part of the process is depositing data. However, overall much of

[1] Based on the mean. The median is 3 days.

the variation in time inputs probably relates to the personality of individuals. It is noticeable that people, who spend more time than average preparing research proposals, also tend to spend more time than average preparing final reports.

Time Input for More Complex and Simple Final Reports

4.06 There is considerable variation in the time input reported for preparing a report for a more complex project for the reasons explained earlier in Section 2. DTZ can provide a rough estimate of the additional time required for preparing a report for a more complex project by looking at the average percentage increase in time inputs for reports for complex projects over reports for conventional projects.

4.07 On this basis DTZ has estimated that reports for complex projects require 90% more time than for conventional projects – conventional time input + 90%. Thus, the average time input for a complex report is around 8 days (4 days + 4 days). **However, this is a very approximate estimate**.

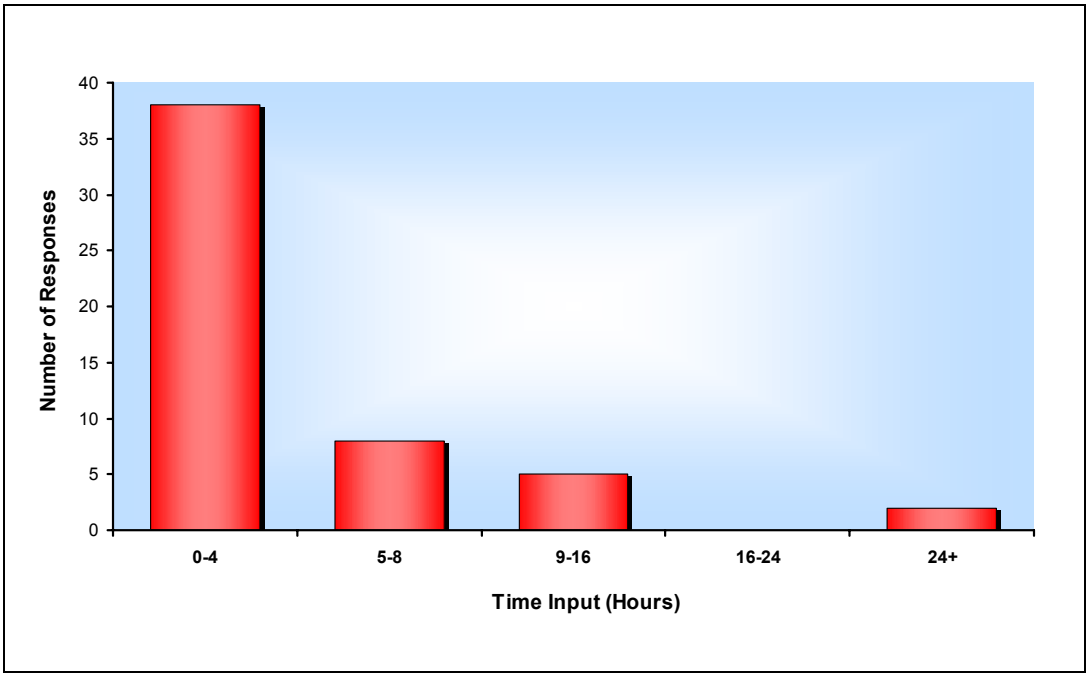
4.08 There is less variation in the time input reported for a simple report. Many respondents said it was nearly as much work to prepare a report for a simpler project as for a conventional one. Hence, the time input for a simple project report is similar to a conventional project. The sample base for this data is very small so this is an approximate estimate again.

Average Time Input for Final Report for Complex Project (VERY APPROXIMATE ESTIMATE)	**8 Days**
Average Time Input for Final Report for Simple Project (VERY APPROXIMATE ESTIMATE)	**3 Days**

Time Input for Refereeing a Final Report for a Conventional Research Project.

4.09 Respondents were asked to estimate the **actual** amount of time it took to referee a final report for a conventional research project. The findings are shown in Figure 4.2.

Figure 4.2
Time Input for Refereeing a Final Report for a Conventional Research Project (Number of Hours)



Average Time Input to Referee a Conventional Final Report[1]	**3 Hours**

4.10 The majority of respondents spend between 0-4 hours refereeing a final report for a conventional research project**.** In this case, **the median has been used to calculate the average time input of 3 hours** because the mean is skewed considerably by a small number of extreme responses in excess of 24 hours.

Time Input to Referee Final Report for More Complex and Simple Projects

4.11 Average time inputs to referee final reports for more complex and simple projects have again been estimated using the **median** (for the reasons explained above) and are shown below. It is important to stress that these are based on a very small sample and should be used with some caution.

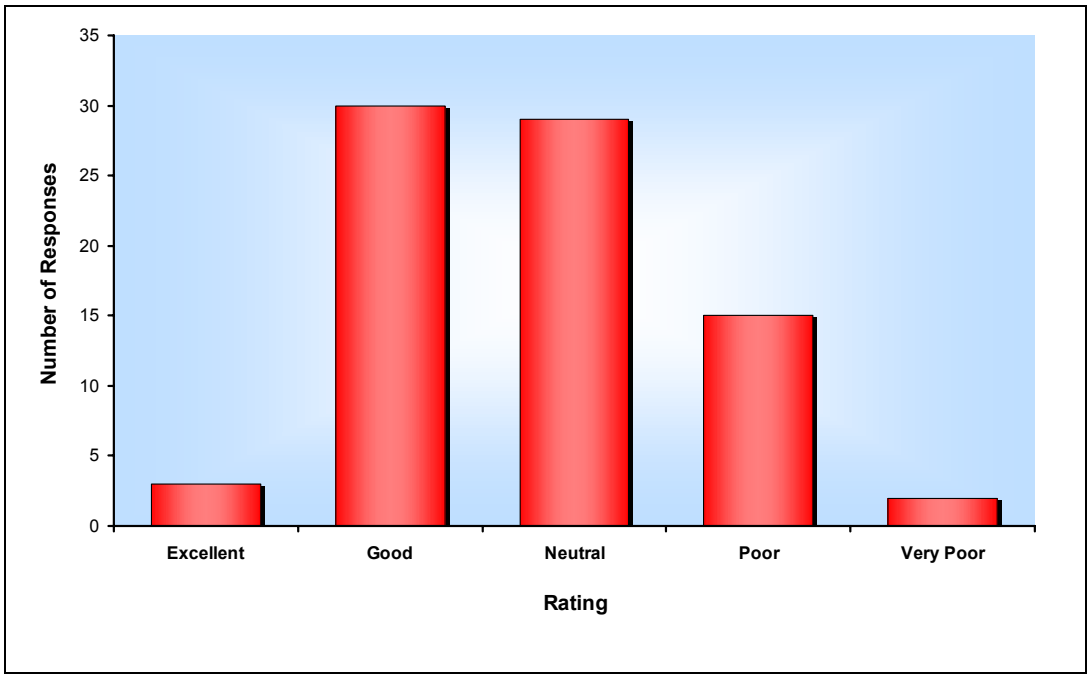
Average Time Input to Referee Final Report for Complex Project (VERY APPROXIMATE ESTIMATE)	**4 Hours**
Average Time Input to Referee Final Report for Simple Project (VERY APPROXIMATE ESTIMATE)	**2 hours**

Views on the Research Councils' Final Reporting Process

4.12 Respondents were asked to rate the efficiency and effectiveness of the Research Councils' final reporting process on a scale of 1 (excellent) to 5 (very poor). The findings from the survey are shown in Figure 4.3.

[1] **Based on the median. The mean is 6 hours**. In this case, the median is considered to be a better measure of the average time input because the mean is clearly skewed by a small number of extreme responses in excess of 24 hours.

Figure 4.3
Respondent Views on Peer Review Process



4.13 It is clear that although many respondents are reasonable happy with the process, a significant proportion of respondents rate the final reporting process as poor or only neutral. The main comments that were made about the final reporting process are as follows:

- How are final reports used? What do the Research Councils do with them? Many respondents felt it was a pointless exercise because they did not understand what the reports were used for. "*They seem to disappear into a black hole*". "*They never seem to crop up when considering future applications for funding*".

- The same sentiment applied to peer review of final reports because they did not understand how the reports were being used.

- If it is something that must be done at the end of a project to justify the expenditure of public money, then make this clear to everyone and simplify reporting requirements as much as possible.

- If it is something the Research Councils are going to use to evaluate the researcher and his/her future applications then make this clear, and consider extending the timeframe from 3 months after the end of the project to 6-12 months. This is so that meaningful information can be provided on the impact of the research, publications and so on.

- Some respondents were confused by the different attitudes to final reports across the Research Councils. For example, some respondents said that EPSRC takes final reports quite seriously – "*they are peer reviewed and form part of your track record for future applications"* and were puzzled by other Research Councils who seemed to view final reports as more of an administrative formality.

- It takes too long to get feedback on how your final report has been assessed. Some respondents said it had taken more than a year and by then the feedback seemed irrelevant.

- It is not clear how final reports are assessed. Some respondents said they were unclear about how projects were assessed if it had been necessary to change the original objectives, because one of the criteria was how the project had progressed in relation to its original objectives.

- Some respondents said there was no need for final reports, and projects should be assessed on the basis of publications emanating from the research. However, others said this would be unfair as it is easier to generate publications in some research areas than others.

- One respondent mentioned NERC's web-based output performance measure programme that has to be completed annually and questioned whether this could replace final reports, as it captures outputs from grants.

- A number of respondents said that they found it helpful to prepare a final report. It helped to concentrate the mind on what had been achieved from the grant and what the priorities for the future should be.

5 RESEARCH ADMINISTRATION

Overview of Research Administration

5.01 Most universities described their system for administering research proposals as being a combination of both centralised and devolved. The balance of load between the centre and faculties varies quite a lot with Manchester and Cambridge, for example, operating a heavily devolved system, and Glasgow, Cardiff and UCL veering towards the centre. Three universities (Queens University Belfast, Essex and Warwick) operate a mainly centralised system.

Time Input for Research Proposals

5.02 Respondents were asked to estimate the administrative/finance staff input involved in preparing a research proposal. Before commenting on the findings, it is important to highlight some limitations of the data:

- It is based on a small sample and can only provide a **very approximate indication of time inputs.**
- The data for universities with mainly centralised systems for administering research proposals is more representative. This is because fewer people are involved in the process and it is possible to get a good understanding of how it works from speaking with 2-3 people.
- It is more difficult to collect accurate and representative information for universities with both centralised and devolved research administration systems. DTZ did not have the time/resources to speak to a range of administrators across different departments so the estimates of time inputs at departmental level are usually based on one department (which may not necessarily be representative of others across the university).

5.03 Estimates of administrative / finance staff input for a **conventional research proposal** are shown in Table 5.1.

Table 5.1
Time Input for Conventional Research Proposal
(Number of Hours)

University	Hours
Cambridge	2.5
Cardiff	3
Edinburgh	5
Essex	7
Glasgow	4.5
Hertfordshire	4.5
Manchester	2.5
Queens University Belfast	1.5
University College London	6
Warwick	5

Average Time Input for Conventional Research Proposal	**4 Hours**

5.04 There is considerable variation in the time inputs provided by universities. This probably reflects:

- The individual characteristics of the people interviewed (given the small sample) rather than the systems at the individual universities. For example, general experience in dealing with research proposals and using Je-S.

- The different way in which respondents thought about their input into a research proposal. Some respondents focussed specifically on the time input to prepare costings. Others included additional things such as advising academics on rules and regulations and providing general advice.

- The way in which respondents define a typical conventional research proposal. All proposals are different and the amount of time involved can vary significantly. Much depends on the experience of the Principal Investigator and how much help he/she needs.

5.05 The time inputs above may be inflated by the recent introduction of full economic costing (FEC) which has complicated the costing process. Once this settles down, time inputs could be reduced.

Time Input for More Complex and Simple Research Proposals

5.06 The estimates of time input for complex research proposals vary significantly from 5 hours to 40 hours. As discussed in Section 2, this probably reflects a lot of variation in the nature of 'complex' projects that respondents have encountered. The estimate of average time can only be a very approximate estimate.

5.07 There is less variation in the time inputs reported for a simple research proposal. This is about 2 hours. Respondents commented that simple applications take longer now than they used to since FEC was introduced.

Average Time Input for Complex Research Proposal (VERY APPROXIMATE ESTIMATE)	**20 Hours**
Average Time Input for Simple Research Proposal	**2 Hours**

Time Input for Final Reports

5.08 The administrative / finance staff input into final reports is minimal as shown in Table 5.2. One respondent provided a good summary of what is involved.

"With the new Je-S system we are among those that have to sign off electronically on the final research report and make sure the information (e.g. who has been employed, at what grade, for how long) is correct. When the academic is preparing the report he/she will sometimes call us with questions or will ask us to review what they have done. In any case, we check the information over before we sign off. If there are no mistakes, this takes very little time (e.g. 5 minutes). If there are mistakes or something is unclear then we have to communicate back and forth with the academic."

Table 5.2 Time Input for a Final Report for a Conventional Research Proposal (Number of Hours)	
University	**Hours**
Cambridge	1.5
Cardiff	0.25
Edinburgh	0.25
Essex	1.0
Glasgow	0.25
Hertfordshire	-
Manchester	1.0
Queens Belfast	0.25
University College London	0.5
Warwick	0.25

Average Time Input for a Final Report for a Conventional Research Project	**0.5 Hours**

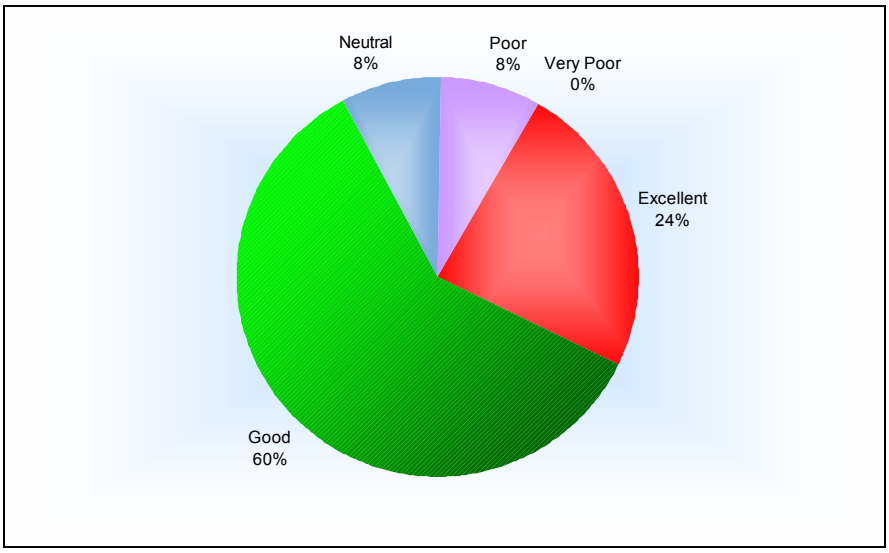
5.09 There was little variation for final reports for more complex or simple research projects.

Views on the Research Councils' Grant Application Process

5.10 Respondents were asked to rate the efficiency and effectiveness of the Research Councils' grant application process on a scale of 1 (excellent) to 5 (very poor). The findings from the survey are shown in Figure 5.1 and show that overwhelmingly respondents feel the application process is good when compared to other funding agencies in the UK and elsewhere.

5.11 In addition, all respondents felt that Je-S had made the grant application process more efficient.

Figure 5.1
Efficiency and Effectiveness of the Research Councils' Grant Application Process



5.12 The most frequent comments about the Research Councils' grant application process and Je-S were:

- Full economic costing has made the process more complicated. There is a big problem with multi-centre applications since the advent of FEC since institutions have different budget centres.

- There is an issue about integration of university costings software with Je-S. At present, many universities are having to prepare costings on their system and then input it again into Je-S. *"The internal costings software (RACE) cannot be downloaded into Je-S. The firewall won't allow it despite a lot of universities using RACE, which means information, has to be re-entered which is time-consuming. Perhaps the Research Councils should have a preferred supplier for such software (whether RACE or something else) and allow immediate uploads of financial information."* (UCL said it is introducing a new costing tool that will integrate with Je-S).

- The MRC system is different to the rest of the Research Councils. A number of respondents said it would be more efficient when the MRC use the same system.

- ESRC and MRC should like other Research Councils allow different universities to submit their own applications for multi-university applications.

5.13 Other general comments on the application process and Je-S are as follows:

- Electronic processes are intrinsically time-saving; paper forms and signatures were very time consuming.
- Je-S has reduced the time/cost of copying/transporting things by hand/internal mail and minimises dead time while things are in transit.

- Applications now have to come through the central office and cannot be sent off without the central office knowing – as used to happen – which has allowed much better monitoring

- The Je-S helpdesk is good.

- It was suggested that the Research Councils should review Je-S from time to time and get feedback from universities on issues that might help improve the system.

5.14 One respondent commented that although the Wellcome Trust and the Royal Society also have electronic grant systems, Je-S is the best because you can access and track the application most easily. University research administration would be much easier if all funding agencies (including the big charities) used Je-S.

5.15 Overall views on Je-S are well summarised by one respondent:

"The Je-S system is the best electronic application system that we use. The helpdesk service and on-line help is very useful"

The Convergence of Policies and Procedures Across the Research Councils

5.16 Respondents were asked whether the increased convergence of policies and procedures across the Research Councils had made the grant application process more or less efficient.

Overwhelmingly respondents feel this had made the application process more efficient but there are still too many differences in policies and procedures across the Research Councils.

Views on How the Grant Application Process Could be Improved.

5.17 Internal issues tend to focus around academics leaving things until the last minute and giving administrative staff little time to prepare costings. Also lack of appreciation from the academic community as to how long it can take to do costings, especially since FEC was introduced. *"We're struggling with FEC and getting the PIs to realise what the new costs of things are. They go into shock because the costs are so high"*.

5.18 Issues relating to Research Council processes/systems are as follows:

- EPSRC have good, proactive university interface managers. It is good for Research Councils to go out and talk to universities. For example, EPSRC provides training in making grant applications alongside the university's in-house trainers.

- Grant awards are not always enough to cover for future pay rises. This is tied to Research Councils and Universities using different inflation figures in their calculations

- Notification of whether an application has been successful or not is received variously by paper or electronically. Notification is sometimes sent to the PI, sometimes to other staff. This is confusing. It could be overcome by recording decisions of proposals on JE-S. Or there could be one person in the university to whom all such correspondence is sent i.e. the Contracts Officer.[1]

- When queries on an application are received from a Research Council, you have to amend the application and resend. It would be easier if universities could just respond to queries.

- When an applicant starts working on Je-S, administration have to ask for editing rights. If this could be part of the authorization process, this would help. This is just a small thing, but it creates more hassle for academic and administrative staff.

Views on How the Final Reporting Process Could be Improved

5.19 Administrative / finance staff do not have much involvement in the final reporting process. Thus, relatively few comments were made about this. The main ones were:

- There need to be clearer guidelines. Many academics write too much.

- It would be helpful to have a Je-S notification of the final report being due, and of its deadline, and this being sent to the PI around 3 months before the deadline.

[1] The MRC currently use their EAA system rather than Je-S.

6 UNIVERSITY INTERNAL ASSESSMENT PROCESS FOR GRANT APPLICATIONS

6.01 University staff were asked whether there was any internal assessment process for grant applications in their department / university. For example, for quality assurance purposes, to assess strategic fit, to manage the number of grant applications submitted and so on.

6.02 The activities that seem to happen across most university departments are as follows:

- Research proposals are checked and signed-off by Research Directors / Heads of Department. However, this seems to be primarily about checking the department has the capacity / resources to undertake the project. It is not, in most cases, a scientific review of the research.

- Internal peer review of research proposals. This seems to be quite common in university departments. Academics ask colleagues to read their proposals and to comment on them (this time is included in the time input estimate for research proposals). However, it is a fairly informal process in most departments.

- Mentoring for younger / more inexperienced researchers. In some departments younger members of staff are encouraged to work with more senior colleagues on the preparation of research proposals.

6.03 However, none of the above could be described as a **formal** internal assessment process. There seems to be no formal demand management of grant applications except where funding schemes restrict the number of applications that a university / department can submit. For example, the MRC Young Investigators Award, some fellowship awards and so on. In this case the department / university will have an internal assessment process to select which applications should be submitted.

6.04 One respondent said there had been discussion in his department about restricting the number of applications submitted. However, the idea had been dropped because there was no way of knowing which applications were most likely to succeed. Perhaps the ones that were dropped were the ones that would have been funded. Elsewhere there seems to be a strong view that academic freedom should prevail – it is up to academics to decide what applications to submit.

6.05 The only examples of a more formal internal assessment process for Research Council grant applications are as follows:

Cardiff

- Some departments are thinking about introducing a formal requirement for all grant applications to be peer reviewed internally prior to submission. This would effectively be formalising what is happening on an informal basis at the moment. It is felt this would be beneficial because academics are often so immersed in their subject that they assume everyone will understand what they are writing about – but often they do not. It is good to get someone who is not involved in the application to assess it.

Edinburgh

- One respondent mentioned that the university had assessment processes for specific calls e.g. invitations to apply for large sums of money such as joint infrastructure bids. "*I think there were about 12 bids that could have gone forward and the process ensured that only the best few went forward per round".*

Glasgow

- "*Within our research group we have an internal process to improve the quality of applications (mainly the science, but comments can spill into the presentation of the science). It involves a meeting of various principal investigators in the group (around 10)."*

- "*The research convenor will read the application to make the science as strong as possible. Also there's a research group to present to and their job is to shoot it down while you practise defending it. This all happens early on."*

- An administrative contact said the Faculty of Engineering had a well developed internal peer review system.

Hertfordshire

- *"More recently there has been less pressure on all academics having to prepare research applications and instead this is being left to those academics who are good at preparing applications and carrying out research and want to do this. There is therefore an increasing emphasis on ensuring the quality of applications and making this more efficient"*

Manchester

- *"Internal peer review always happens for proposals of £100k+. More recently have introduced meetings with the Director of Research who provides detailed feedback".*

Queens Belfast

- *"Queens is undergoing a structural change with each department developing new research teams. The head of each team will provide mentoring/guidance to researchers – aim is to boost success rate when bidding for funding".*

Warwick

- "*Larger grants are reviewed by a steering committee chaired by the Vice Chancellor. It signs off all proposals over £1million".*

6.06 Overall, there is a fine line between the more formal examples of internal assessment of grant applications presented above and the more informal assessment that takes place in most departments. It is fair to say that there is a considerable amount of informal peer review of grant applications in universities but almost no formal assessment procedures or demand management of grant applications (except where quotas for applications are imposed by the Research Councils).

7 SUMMARY AND CONCLUSIONS

7.01 Table 7.1 summarises the findings from the survey on time inputs associated with the peer review process.

Table 7.1
Summary of Time Inputs

	Academic Staff	**Administrative Staff**
1. Preparation of a Research Proposal		
• Simple	5 Days	2 Hours
• Conventional	12 Days	4 Hours
• Complex	30 Days	20 Hours
2. Refereeing a Research Proposal (per referee)		
• Simple	2 Hours	-
• Conventional	4 Hours	-
• Complex	8 Hours	-
3. Responding to Referee Comments	10 Hours	-
4. Prioritisation of Proposals by Panel (per panel member)	4 Days	-
5. Preparation of a Final Report		
• Simple	3 Days	0.5 Hours
• Conventional	4 Days	0.5 Hours
• Complex	8 Days	0.5 Hours
6. Refereeing a Final Report		
• Simple	2 Hours	-
• Conventional	3 Hours	-
• Complex	4 Hours	-

7.02 The main conclusions from the study are as follows:

- The principle of peer review is supported strongly by academics. It may be laborious and take a lot of time but academics feel it is worthwhile because it is open and fair, and generally arrives at the right decisions.

- The most resource-intensive part of the peer review process for university staff is the preparation of research proposals. This should be the focus for any measures to reduce the overall level of resources involved in the peer review process.

- The effectiveness of the peer review process hinges on the quality of referee reports. There is some unease about the quality of referee reports. Partly, there are increasing demands on academics and although they take their peer review responsibilities seriously, they are sometimes too busy / under too much pressure to do the thorough job they would like. Partly, there is concern about the way that referees are selected and whether they always have the right expertise for the task. This is an area where there may be scope to deploy resources more effectively.

- There are issues about the efficiency of current arrangements for final reporting across the Research Councils. Many academics do not understand how reports are used and are confused why Research Councils seem to treat them in different ways. It would be more efficient for Research Councils to decide the purpose for which they want to use final reports, and to tailor reporting requirements accordingly.

APPENDIX 1

QUESTIONNAIRE FOR ACADEMIC STAFF

QUESTIONNAIRE FOR
ADMINISTRATIVE / FINANCE STAFF

RESEARCH COUNCILS UK
ANALYSIS OF THE EXTERNAL COSTS OF PEER REVIEW

ACADEMIC STAFF

INTRODUCTION

As part of the Research Councils' submission in support of the Government's 2007 Comprehensive Spending Review, a project to assess the efficiency and value-for-money of peer review is being undertaken by RCUK (see http://www.rcuk.ac.uk/activities/peerproj.asp for more information).

One aspect of the project involves investigating the full cost of the preparation and peer review of **Research Council Research Grants** within universities. For example, the time spent by university staff on preparing Research Council proposals and final reports and in acting as referees and peer review panel members. DTZ Pieda Consulting has been appointed by RCUK to consult university staff about the time they spend on peer review activities and how they feel the efficiency and effectiveness of the peer review process could be improved. DTZ Pieda Consulting is an independent company that works regularly with universities, government departments and other public sector clients.

Ten universities have been selected for this study, of which yours is one. The Research Councils have indicated that you have recent experience of submitting and reviewing research grants, and we would value your participation in this influential study. **All information will be treated in confidence and only anonymised responses will be provided to RCUK**.

The interview should take about 30 minutes. We realise that the time you spend on peer review activities probably varies according to the size and complexity of the research grant. However, for the purpose of this interview we would like to focus on a **conventional** research grant. For example, a grant with maybe one or two investigators involving typically 1-2 FTE research staff (e.g. PDRs, PhD students). There will be an opportunity to tell us about how things could be different for more complex and simple research grants during the interview (see the definitions of conventional, complex and simple grants at the end of this questionnaire).

NAME
UNIVERSITY
RESEARCH COUNCIL

THE RESEARCH PROPOSAL

1. Have you ever applied to the Research Councils as a Principal Investigator?

Yes		Go to Q2
No		Go to Q14

2. How much time (days/hours input) does it take to prepare a conventional research proposal? Please include not just your time but also the time of other researchers that would be involved

in the process. (There is no need to include time inputs by administrative and finance staff – as information on this will be collected separately). The starting point of the process should be the point at which it is decided to submit a proposal and the end point should be the submission of the proposal to the Research Council. Please provide brief details of the process.

Time Input

.....

.....

3. Have you ever, as a Principal Investigator, prepared a more complex or simple research proposal? Please see definitions at the end of this questionnaire. If so, what time input did this entail - again as in Q2 thinking of the time of all researchers who were involved?

Complex Time Input Simple Time Input

.....

.....

4. Have you ever been involved as a Principal Investigator in preparing an outline research proposal (see definition at the end of this questionnaire)? If so, what sort of time input did it entail - again as in Q2 thinking of the time of all the researchers who were involved?

Yes	
No	

Time Input

5. Have you ever had peer review reports on one of your research proposals (or questions from a peer reviewer) referred back to you for comment as part of the assessment process? If so, how long did it take you to prepare a response?

Yes	
No	

Time Input

6. Is there any internal assessment process for Research Council grant applications in your university / department? For example, for quality assurance purposes, to assess strategic fit, to manage the number of grant applications submitted etc? If so, please provide details (including an assessment of the **total** amount of time academics/researchers spend on this process for a typical application).

Yes	
No	

.....

.....

7. How would you rate the efficiency and effectiveness of the Research Councils' grant application process on a scale of 1 to 5? Please explain the reason for your assessment. You may find it helpful to compare your experience of the Research Councils with any experience you have of other funding agencies in the UK or elsewhere.

1	2	3	4	5
Excellent	**Good**	**Neutral**	**Poor**	**Very Poor**

.....

.....

8. How could the Research Council grant application process be improved / streamlined (to reduce time and cost) without undermining its credibility? Do other organisations have better systems?

.....

9. Has recent electronic submission of grant applications (Je-S) made the process more or less efficient for you?

More Efficient	
Less Efficient	

FINAL PROJECT REPORT

10. How much time (days/hours input) does it take to prepare a final report for a conventional Research Council research award? Please include not just your time but also the time of other researchers that would be involved in the process. (There is no need to make any allowance for the preparation of a final expenditure statement or the time inputs of administrative and finance staff – as information on this will be collected separately).

Time Input

11. Have you ever prepared a final report for a more complex or simple research award? If so, what time input did this entail, again as in Q10 thinking of the time of all researchers who were involved?

Complex Time Input

Simple Time Input

12. How would you rate the efficiency and effectiveness of the Research Councils' final reporting process on a scale of 1 to 5? Please explain the reasons for your assessment. You may find it helpful to compare your experience of the Research Councils with any experience you have of other funding agencies in the UK or elsewhere.

1	2	3	4	5
Excellent	**Good**	**Neutral**	**Poor**	**Very Poor**

13. How could the reporting procedure be improved?

.....

.....

THE PEER REVIEW AND PANEL ASSESSMENT PROCESS

The Research Council's peer review process tends to be undertaken in two stages. First, individual research proposals or reports are peer reviewed by researchers specialising in the research area – typically by mail or e-mail. This is termed refereeing. Second, research proposals and reports are further reviewed, moderated and prioritised by a panel of academics. We would like to ask about your experience of both these stages of the peer review process.

Reviewing/Refereeing by Specialists

14. Have you been a referee for a Research Council grant proposal?

Yes		Go to Q15
No		Go to Q17

15. How much time (days/hours input) does it take to referee a conventional research proposal – to read, assess and write about it?

Time Input

16. Have you ever had to referee a more complex or simple research proposal? If so, what time input did this entail?

Yes	
No	

Complex Time Input

Simple Time Input

17. Have you been a referee for a Research Council final project report?

Yes		Go to Q18
No		Go to Q20

18. How much time (days/hours input) does it take to referee a final report for a conventional research award?

Time Input

19. Have you ever had to referee a more complex or simple final report for a Research Council grant award? What time input did this entail?

Complex Time Input

Simple Time Input

Moderation/Prioritisation/Assessment by Panel

20. Are you, or have you been, a member of a Research Council Committee/Panel responsible for further assessing, moderating and prioritising research proposals?

Yes		Go to Q21
No		Go to Q22

21. How much time (days/hours input) does it take to prepare for a typical committee / panel meeting and to complete any post-meeting tasks (such as writing or editing notes / feedback).

Could you describe what this involves? **Please do not include time travelling to, and attending, the meeting itself** as information is available separately on this.

Time Input	

.....

.....

The Overall Peer Review Process

22. How would you rate the efficiency and effectiveness of the Research Councils' overall peer review and panel assessment process on a scale of 1 to 5? Please explain the reasons for your assessment. You may find it helpful to compare your experience of the Research Councils with any experience you have of other funding agencies in the UK or elsewhere.

1	2	3	4	5
Excellent	**Good**	**Neutral**	**Poor**	**Very Poor**

.....

.....

23. How could the process be improved / streamlined (to reduce time and cost) without undermining its credibility? Do other organisations have better peer review systems?

.....

.....

24. Overall, do you feel the Research Council's peer review process (peer review and panel assessment) is worthwhile? Do the benefits justify the amount of academic/researcher effort involved? Please explain the reasons for your assessment.

Yes	
No	

.....

.....

THANK YOU FOR YOUR TIME.

THE FINDINGS FROM THIS PROJECT WILL BE DISSEMINATED THROUGH THE RCUK WEBSITE IN DUE COURSE

RESEARCH COUNCILS UK
ANALYSIS OF THE EXTERNAL COSTS OF PEER REVIEW

ADMINISTRATIVE AND FINANACE STAFF

As part of the Research Councils' submission in support of the Government's 2007 Comprehensive Spending Review, a project to assess the efficiency and value-for-money of peer review is being undertaken by RCUK (see http://www.rcuk.ac.uk/activities/peerproj.asp for more information).

One aspect of the project involves investigating the full cost of the preparation and peer review of **Research Council Research Grants** within universities. For example, the time spent by university staff (both academic and administrative) on preparing Research Council proposals / reports and in acting as referees and peer review panel members (academic staff only). DTZ Pieda Consulting has been appointed by RCUK to consult university staff about the time they spend on these activities and how they feel the efficiency and effectiveness of the peer review process could be improved. DTZ Pieda Consulting is an independent company that works regularly with universities, government departments and other public sector clients.

Ten universities have been selected for this study, of which yours is one. The Research Councils have indicated that you are knowledgeable about their research grants, and we would value your participation in this influential study. **All information will be treated in confidence and only anonymised responses will be provided to RCUK**.

The interview should take about 20 minutes. We realise time inputs on research proposals / reports probably vary according to the size and complexity of the research award. However, for the purpose of this interview we would like to focus on a **conventional** research award. For example, a grant with maybe one or two investigators involving typically 1-2 FTE research staff (eg. PDRs, PhD students). There will be an opportunity to tell us about how things could be different for more complex and simple research grants during the interview (see the definitions of conventional, complex and simple grants at the end of this questionnaire). We will be speaking to academic staff separately, so there is no need to include their time in the information you provide.

NAME
UNIVERSITY
RESEARCH COUNCIL

BACKGROUND

1. Could you give me a broad outline of the way in which administration for research grants operates at your university? Would you describe it as centralised / devolved / mixture?

.....

.....

2. Could you describe in broad terms the type of support you provide to academic staff in terms of

a) submitting research proposals? .....

.....

b) managing external research projects? .....

.....

3. Is there any internal assessment process for Research Council grant applications in your university / department? For example, for quality assurance purposes, to assess strategic fit, to manage the number of grant applications submitted etc? If so, please provide details (including an assessment of the **total** amount of time a) administrative/finance staff and b) academics/researchers spend on this process for a typical application).

Yes	
No	

.....

.....

THE RESEARCH PROPOSAL

4. How much time (days/hours input) do administrative / finance staff spend on a conventional research proposal? The starting point of the process should be the point at which an academic decides to submit a proposal and the end point should be the electronic submission of the proposal to the Research Council. What tasks would usually be undertaken by administration and finance staff and which are the most/least time-consuming)?

Time Input

.....

.....

5. Have you ever contributed to a more complex or simple research proposal? Please see definitions at the end of this questionnaire. If so, what time input did this entail?

Complex Time Input Simple Time Input

6. How would you rate the efficiency and effectiveness of the Research Councils' grant application process on a scale of 1 to 5? Please explain. You may find it helpful to compare your experience of the Research Councils with any experience you have of other funding agencies in the UK or elsewhere.

1	2	3	4	5
Excellent	**Good**	**Neutral**	**Poor**	**Very Poor**

.....

.....

7. What are the main problems and 'log-jams' in the process? Which relate to internal university issues? Which relate to external Research Council systems / procedures? How could they be remedied?

a) internal university issues .....

.....

.....

b) external Research Council systems/procedures .....

.....

.....

8. How could the grant application process be improved / streamlined (to reduce time and cost) without undermining its credibility? Do other organisations have better systems?

.....

.....

9. Has recent electronic submission of grant applications (JES) made the process more or less efficient? Why?

More Efficient	
Less Efficient	

.....

.....

10. Has increased convergence of policies and procedures across the Research Councils made the process more or less efficient? For example, similar application form across all the Research Councils, increased harmonisation of grant terms and conditions? Please explain.

More Efficient	
Less Efficient	

.....

.....

FINAL PROJECT REPORTS

11. Do administrative and finance staff have any input in preparing and submitting final project reports for Research Council grant awards? The preparation of a final expenditure statements is **not** part of the scope of this study and should not be included as part of the reporting process.

Yes		Go to Q12
No		End

12. How much administrative/finance time (days/hours input) does this entail for a conventional research award? What are the main tasks that are undertaken?

Time Input

.....

.....

13. Have you ever contributed to a more complex or simple final report? Please see definitions at the end of this questionnaire. If so, what time input did this entail?

Complex Time Input Simple Time Input

14. How could the efficiency and effectiveness of the reporting procedure be improved?

.....

.....

THANK YOU FOR YOUR TIME.

THE FINDINGS FROM THIS PROJECT WILL BE DISSEMINATED THROUGH THE RCUK WEBSITE IN DUE COURSE

DEFINITIONS

The following are intended to be broad generic definitions of different types of research grant.

Conventional Research Grant

A research proposal typically of up to 36 months duration with a limited number of investigators (maybe only one) and involving a limited number (typically one or two FTE) of dedicated research staff members (e.g. post doctoral research assistants and/or PhD students) and with some additional resources for equipment, travel and consumables. Any collaborations within the proposal would be small in number.

Complex Research Grant

These could include research proposals that have at least one of the following characteristics but typically more than one: a long duration (typically 48 months +); many co-investigators (perhaps with some in other organisations); is multi-disciplinary in approach; where progress is dependent upon multiple collaborations with other organisations (e.g. with industry) or where there are multiple-linked projects working as a portfolio or a centre; have a large dedicated fulltime research team.

Simple Research Grant

A research proposal that is for a limited period (18 months or less) and with more limited objectives and ambitions. The proposal may, for example, be focused on demonstrating feasibility or may be limited to the support of overseas travel. Often such grants have much more limited staffing associated with them.

Outline Research Grant

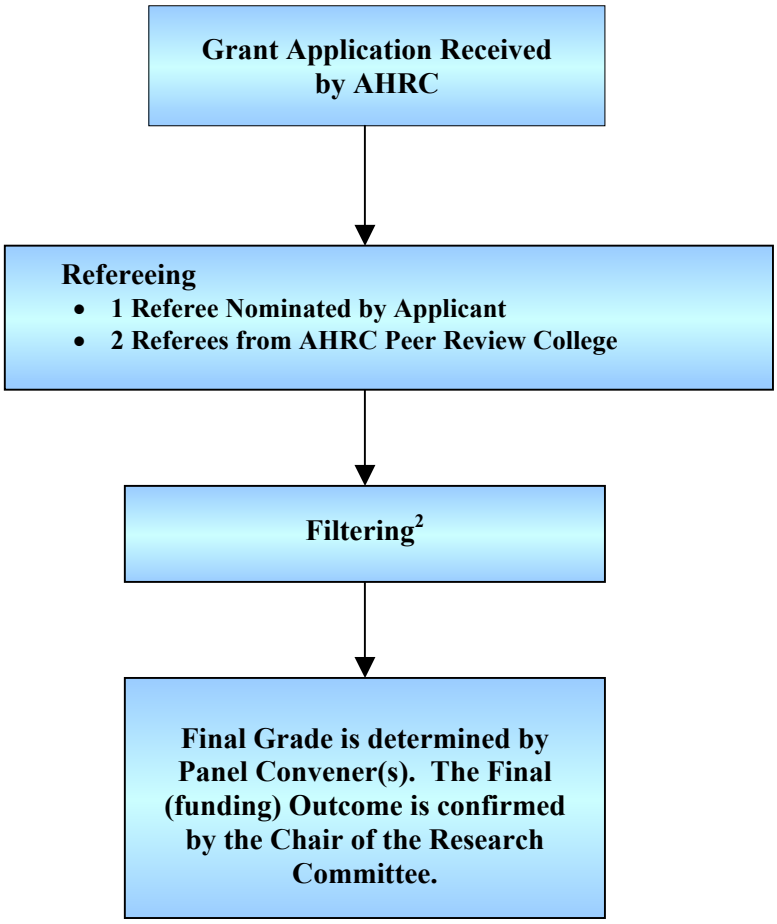
A research proposal that will not be funded in its own right but which is subject to a filtering step prior to submission of a full proposal. An outline will typically involve a cut-down case for support and the need to submit summary cost estimates rather than detailed cost breakdowns.

APPENDIX 2

FLOW CHARTS OF TYPICAL PEER REVIEW PROCESS FOR RESEARCH PROPOSALS

AHRC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS

Small Grants[1]

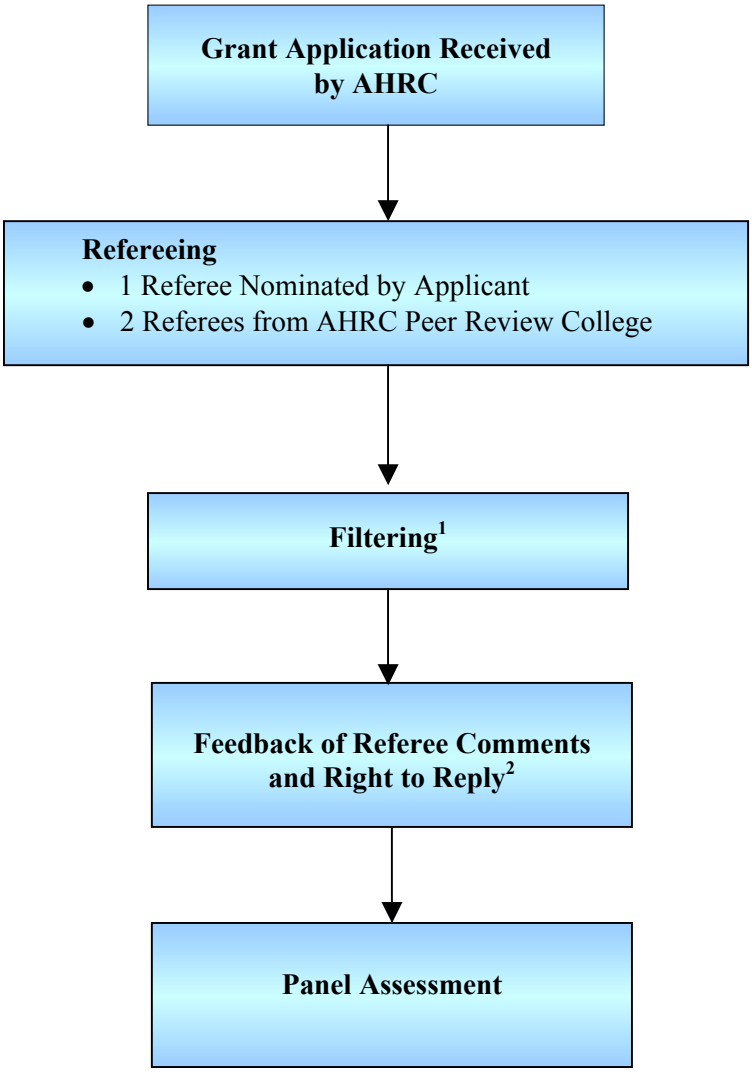


Notes:

1. £5,000 pre-fEC; £20,000 fEC
2. Applicants that receive the lowest two grades are filtered out. In practice, this is only about 5% of applications.

AHRC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS

Other Grants
(Excluding Research Centres)

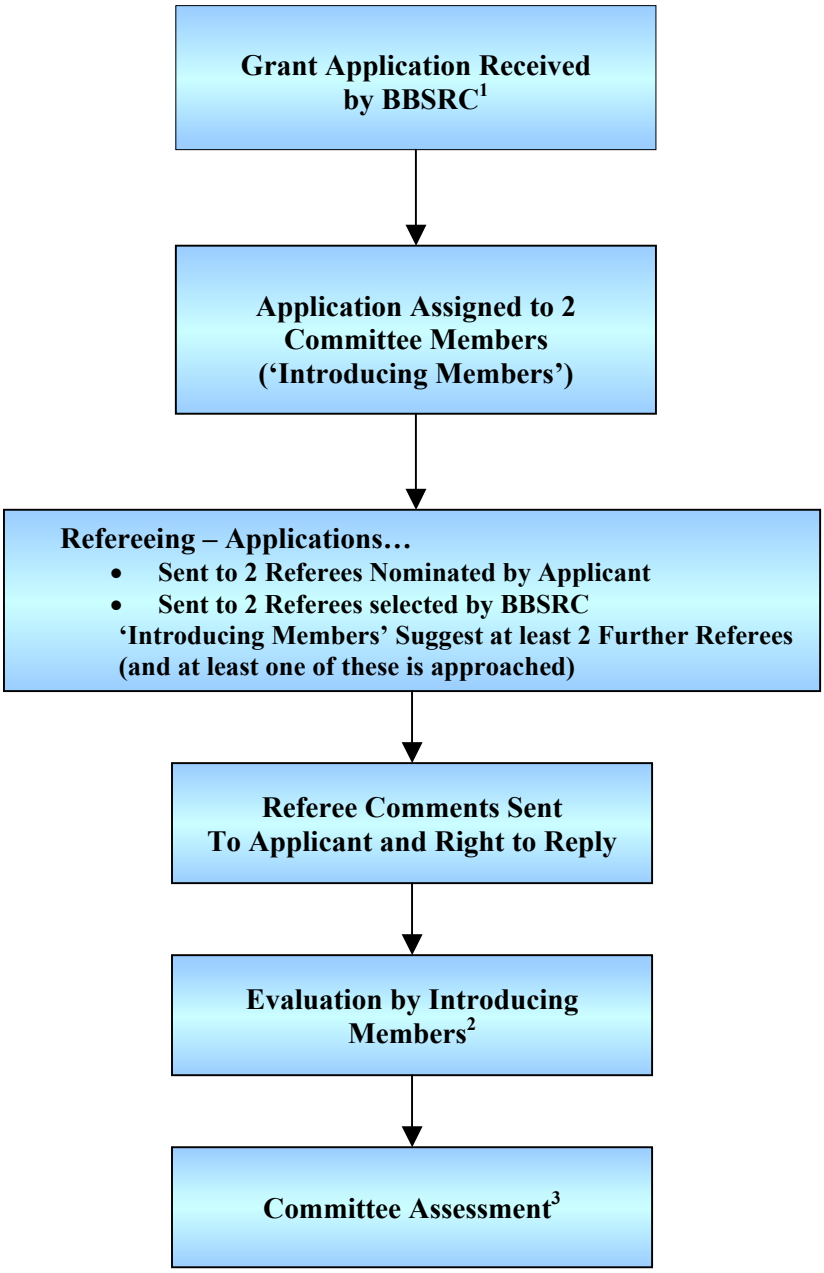


Notes:

[1] Applicants that receive the lowest two grades are filtered out. In practice, this is only about 5% of applications.

[2] Right to reply is for applications going to Panel.

BBSRC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS



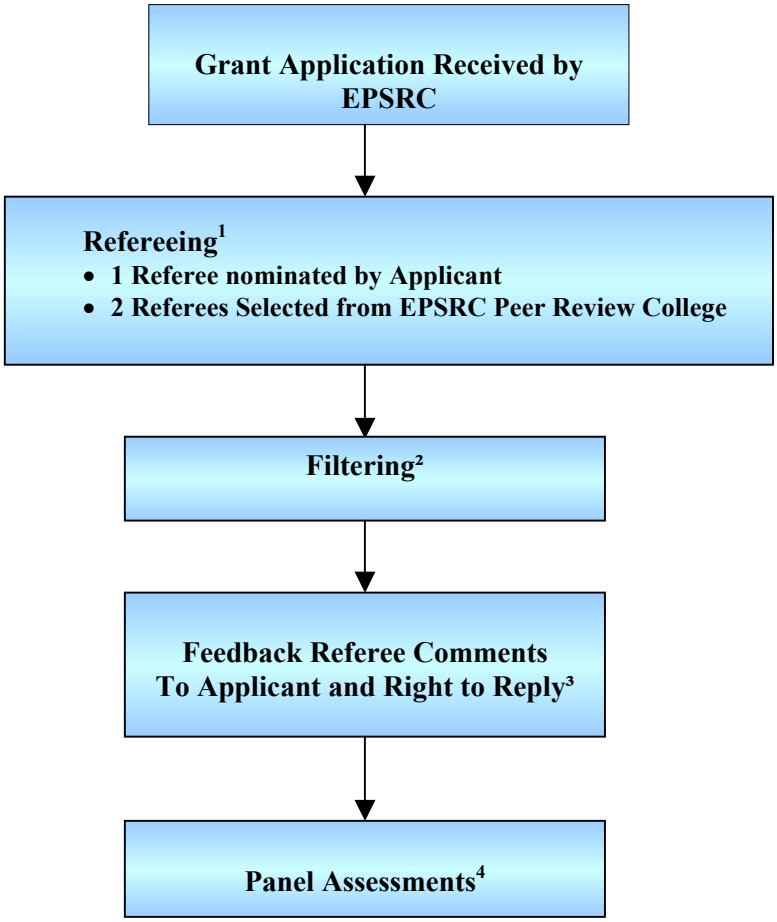
Notes:

[1] There are 4 'responsive mode' closing dates per year.

[2] Introducing members are asked to score applications from 0-9. A score of 7+ is deemed internationally competitive and will be funded if sufficient money is available.

[3] All applications go to Committee but in practice most of the discussion is about those within the funding zone.

EPSRC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS



Notes:

[1] There are about 4,400 members of the EPSRC Peer Review College. Each person is nominated for four years. The aim is to have at least 3 referee reports. Sometimes more than 3 referees will be contacted to achieve this. The response rate to requests for referee reports is about 70%.

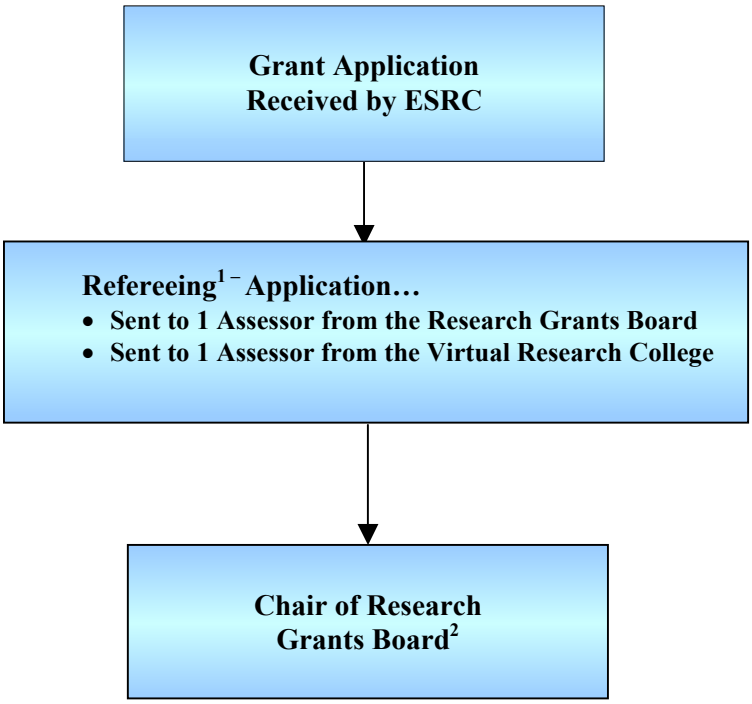
[2] If 2 out of 3 referee reports are negative the application may be sifted.

[3] Anonymised referee comments are sent back to the applicant. The applicant is allowed a week to respond.

[4] Panels typically review 40-50 grant applications. Each grant application is nominated two speakers on the panel. This means members have to speak to about 10 applications in detail – although they are encouraged to familiarise themselves with all the applications. Panel members are not asked to referee the proposals themselves. They are asked to use the referee reports, applicant responses and other panel information to rank the applications, ensuring this is done on a consistent basis for all applications. Effectively, they are moderating and prioritising.

ESRC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS

Small Grants <£100k



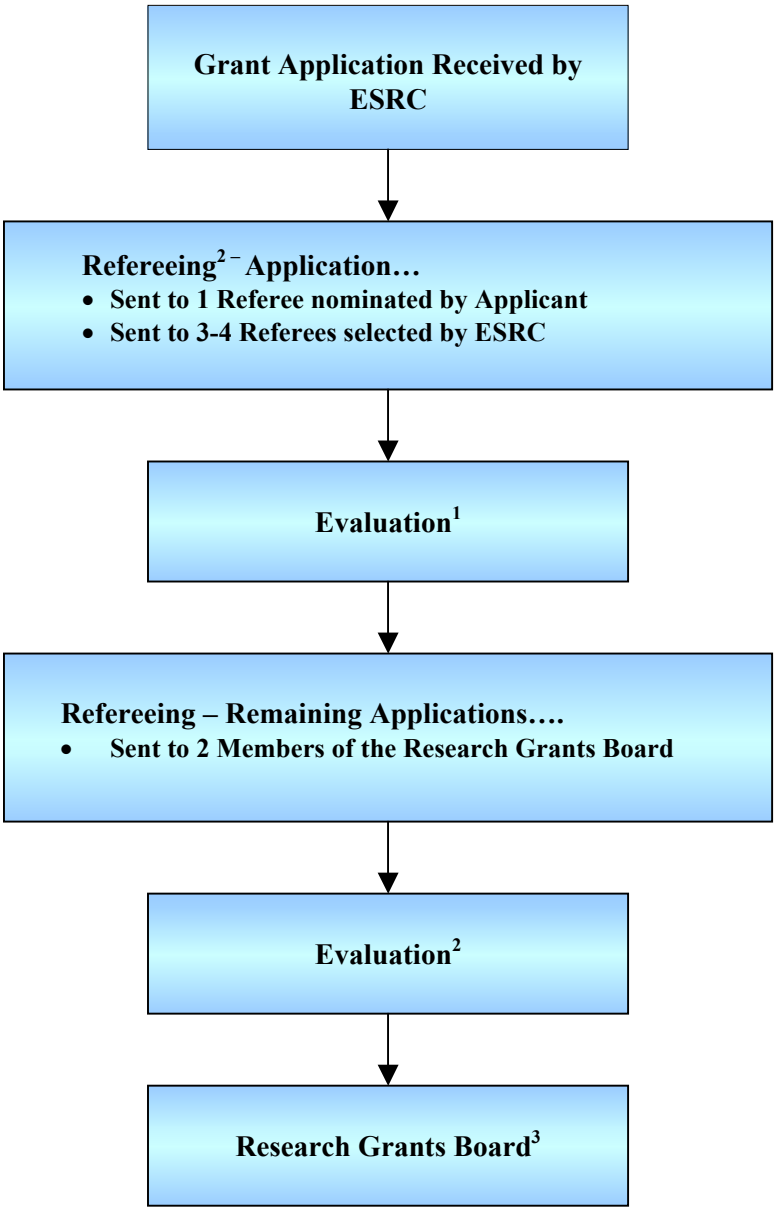
Notes:

[1] There is a **Research Grants Board** that determines all ESRC grant applications. This is comprised of approximately 25 people. The Virtual Research College comprises approximately 100 academics and operates in a similar way to the Peer Review Colleges of other Research Councils. The assessors grade the application

[2] There is a reconciliation process if the two assessors grade the application very differently. Grant applications below a particular score are rejected. Grant applications above the cut-off point are sent to the Chair of the Research Grants Board for sign-off.

ESRC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS

Standard Grants >£100k



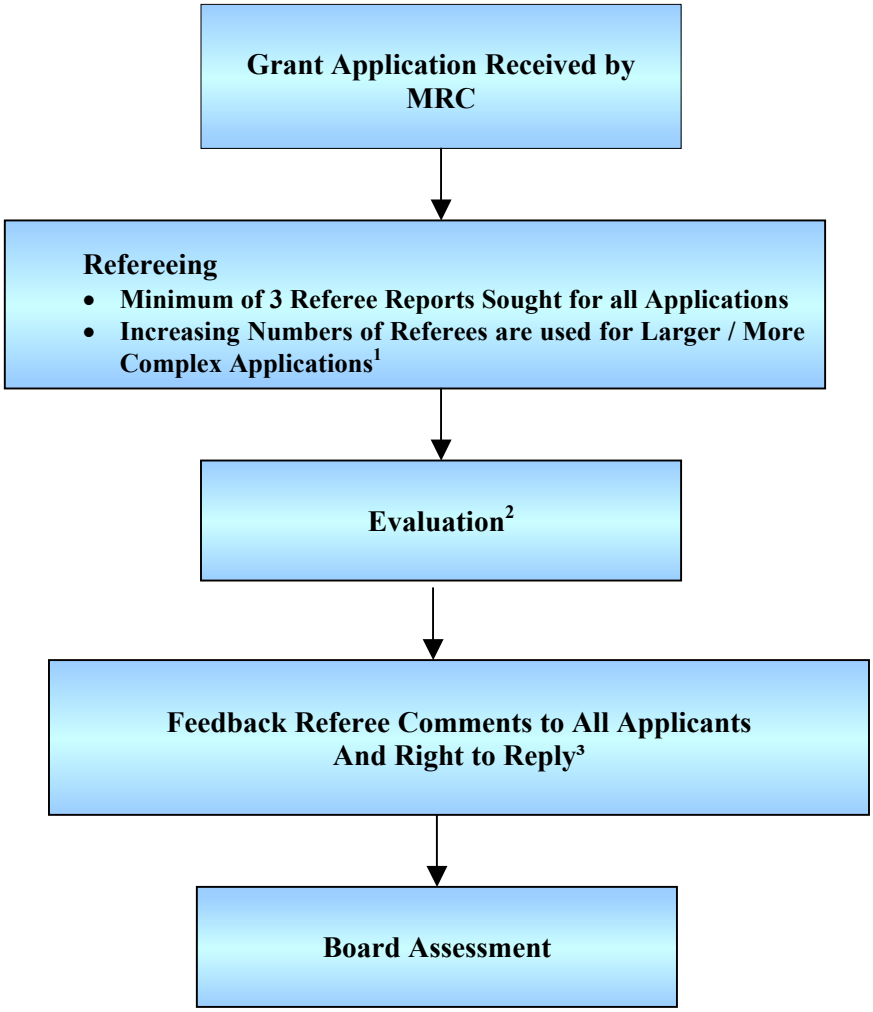
Notes:

[1] About 10-20% of applications are sifted out at this stage. Referee comments on large grants (>£500k) are sent back to applicants for comments at this stage.

[2] A further 10-20% of applications are sifted out at this stage.

[3] The Research Grants Board reviews all grant applications not sifted out in the two previous phases from those scored most highly down.

MRC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS



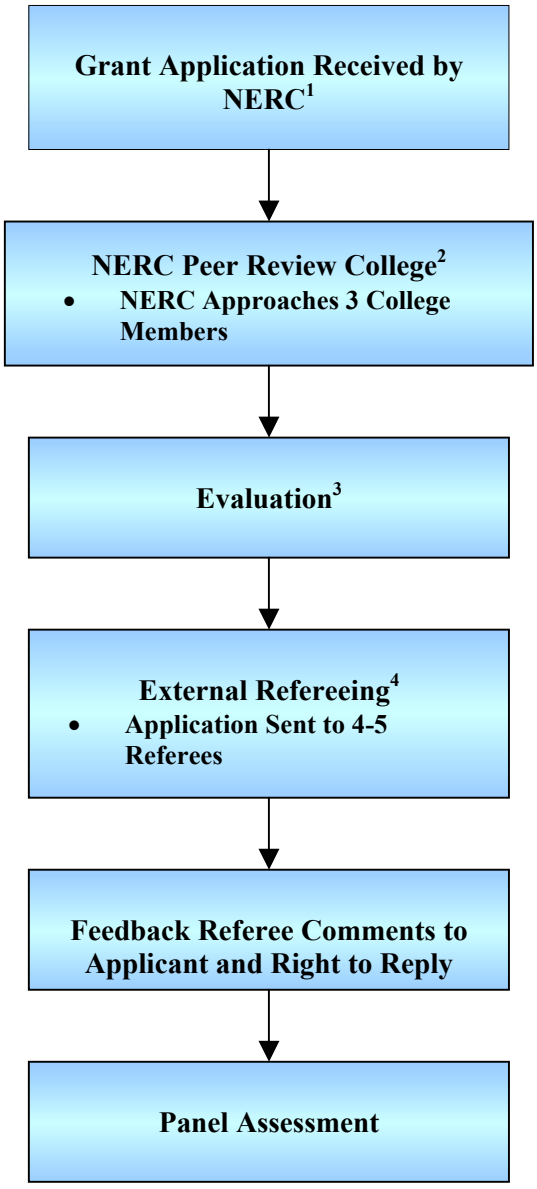
Notes:

[1] Aim for at least one overseas report for all applications over 3 years or which are complex. Also for smaller applications where there are no UK experts in the field.

[2] Applications are short-listed on the basis of referees' (and Board/Panel Members) comments such that those with a total value of approximately 2-3 times the value of funds to be awarded at the meeting will be assessed by the Board/Panel. (There is not a numerical cut-off, though the number tends to be 30-50).

[3] Applicants have an opportunity to submit a written response if their application is being assessed by the Board.

NERC TYPICAL PEER REVIEW PROCESS FOR GRANT APPLICATIONS



Notes:

[1] The process outlined is for standard grant applications. There are two rounds per year.

[2] There are 365 members of the Peer Review College. They are paid £1k pa to referee up to 15 applications and sit on a maximum of 5 panels.

[3] Use an algorithm based on referee scores to sift out about 50% of applications – but in practice tend to achieve about 40%.

[4] Including overseas academics. Aim to get at least one external referee report in addition to reports from Peer Review College.

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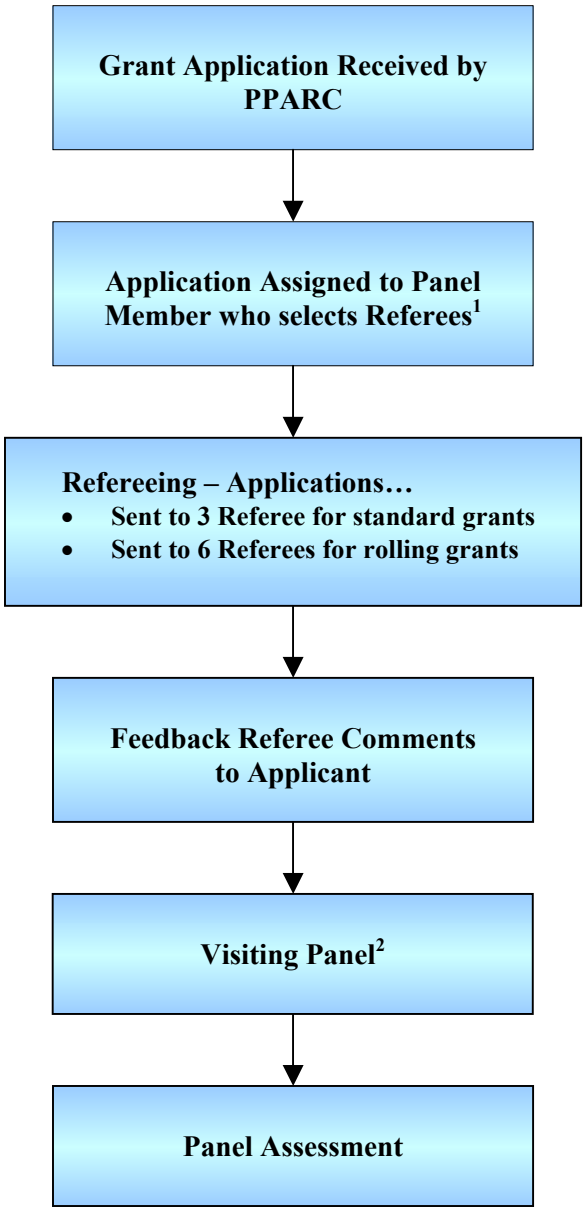
PPARC TYPICAL PEER REVIEW PROCESS FOR GRANTS APPLICATIONS (Astronomy Only)



Notes:

[1] Each Panel Member is responsible for about 6 grant applications.

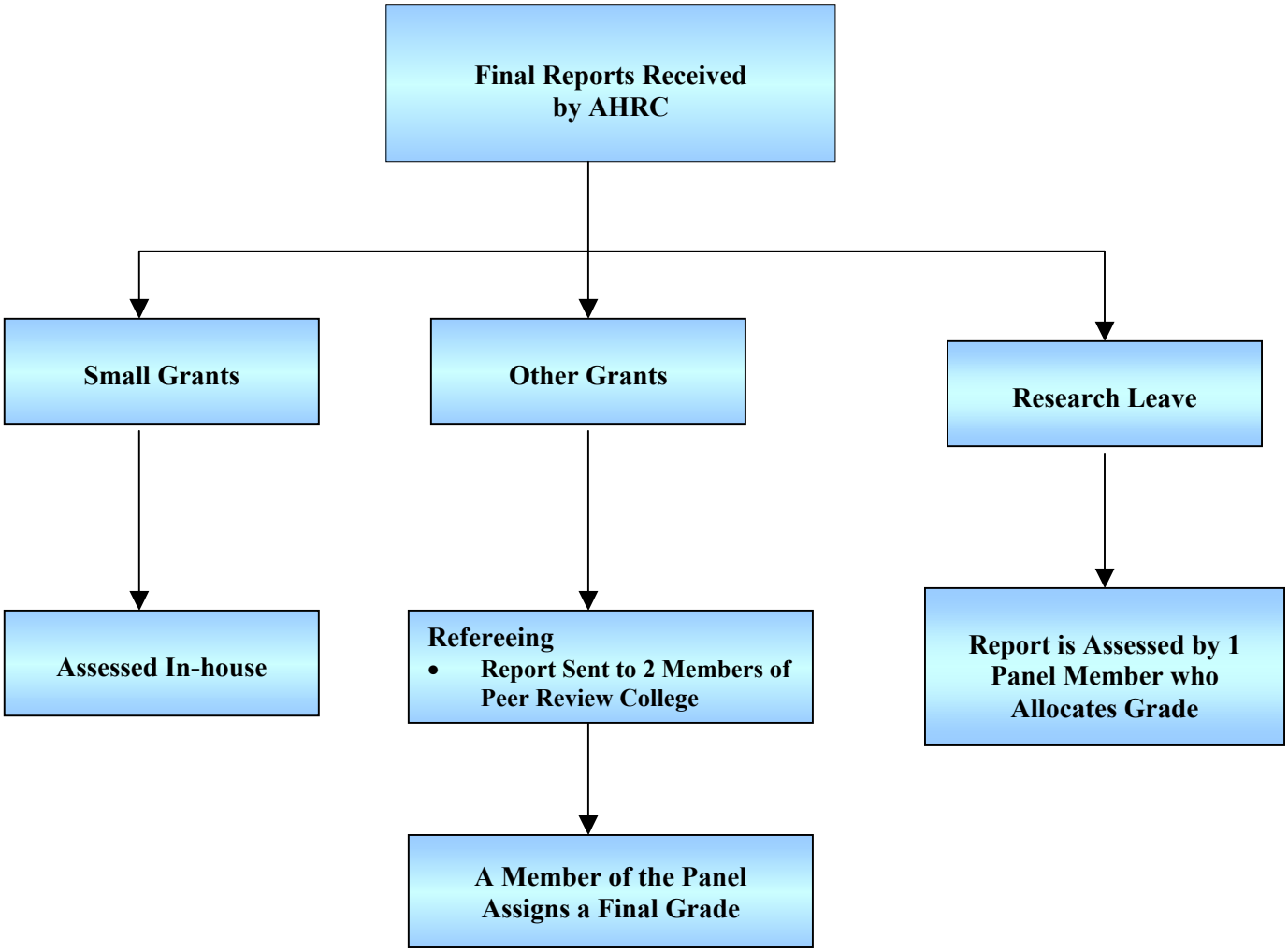
[2] For rolling grants it is common for a visiting panel assessment to take place. This is chaired by the Panel Member responsible for the application and typically involves 4 other people who are not represented on the Panel.

[3] All applications are sent to the Panel. There is no filtering process.

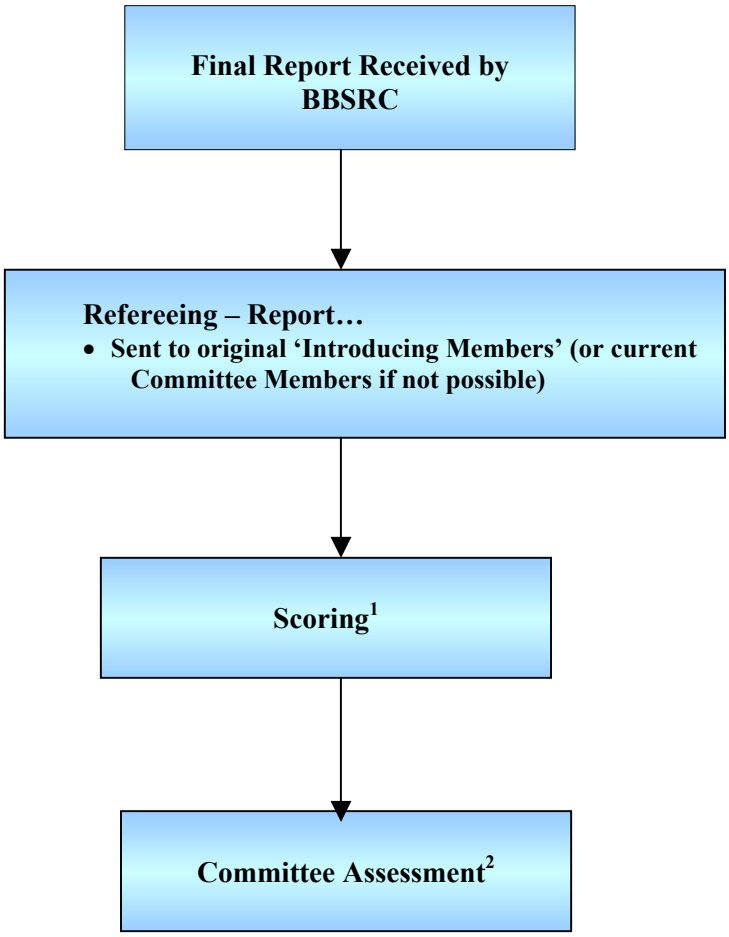
APPENDIX 3

FLOW CHARTS OF TYPICAL PEER REVIEW PROCESS FOR FINAL REPORTS

AHRC TYPICAL PEER REVIEW PROCESS FOR FINAL REPORTS



BBSRC TYPICAL PEER REVIEW PROCESS FOR FINAL REPORTS

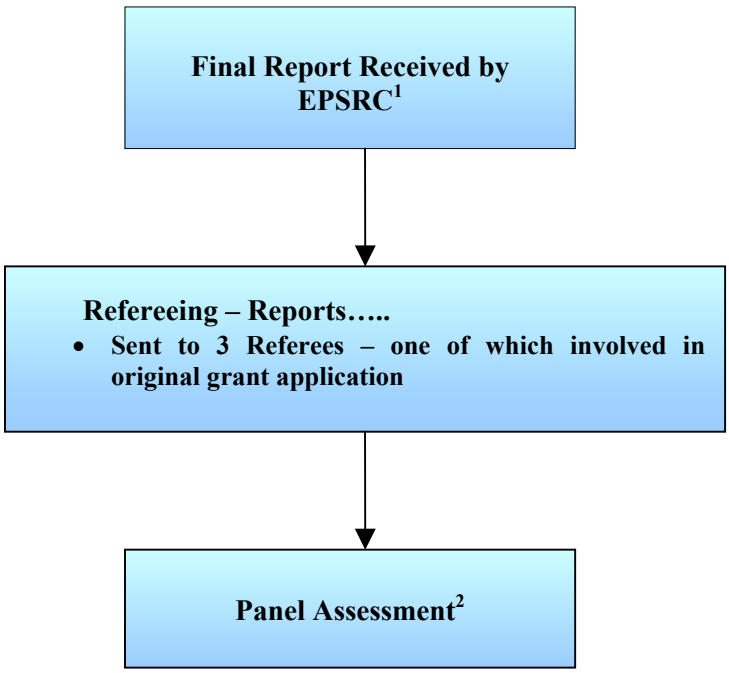


Notes:

[1] This is carried out by the academics to whom the report has been assigned.

[2] The reports go to Committee where there is an opportunity for discussion and amendment.

EPSRC TYPICAL PEER REVIEW PROCESS FOR FINAL REPORTS

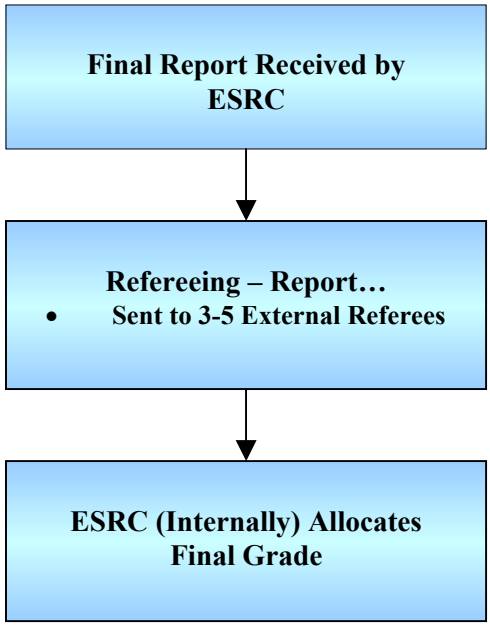


Notes:

[1] Final Reports are requested 3 months after the end of grants awards.

[2] The Panel scores the project and the PI will be informed of the outcome.

ESRC TYPICAL PEER REVIEW PROCESS FOR FINAL REPORTS (Small & Standard Grants)



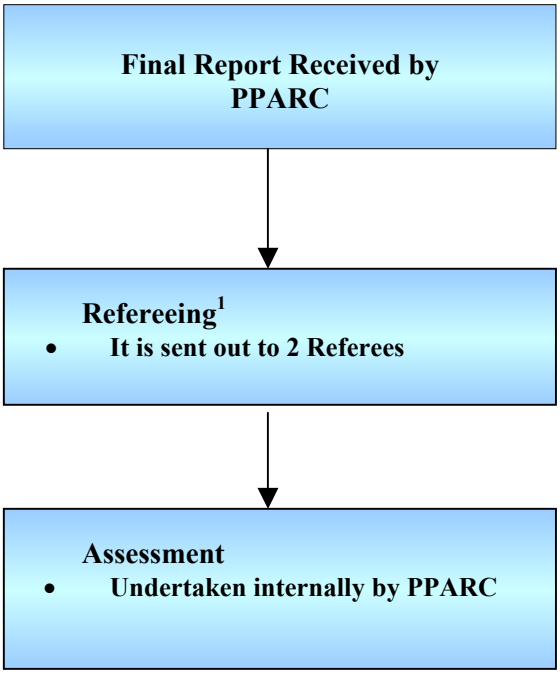
MRC TYPICAL PEER REVIEW PROCESS FOR FINAL REPORTS

- Final report received by MRC.
- Receipt triggers final payment on the grant (in conjunction with final expenditure statement).
- There is no external peer review.
- MRC is exploring an annual assessment of the final reports received by Programme Managers and Board/Panel Members to inform future funding decisions.

NERC TYPICAL PEER REVIEW PROCESS FOR FINAL AREPORTS

- Short final reports are prepared.
- There is no peer review of final reports. This stopped about 2 years ago.
- They are looked at by SPOs internally. Only in exceptional circumstances would a final report be sent to a member of the Peer Review College.

PPARC TYPICAL PEER REVIEW PROCESS FOR FINAL REPORTS



Notes:

[1] If referees assessed the project very differently a third opinion would be sought. However, this is rare.

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