

REF Sub-panel 18: Meeting 2

29 January 2014 Grand Connaught Rooms, London

Minutes

Present:

Oriana Bandiera Timothy Besley David Blackaby Stephen Bond Sarah Brown Nicholas Crafts Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Ben Lockwood Deborah McClean (adviser) David Miles Peter Neary (chair) Stephen Pudney Alan Sutherland Jonathan Thomas Ian Walker Gillian Weale (secretary)

Apologies:

Jorge Padilla

1. Introduction and competence to do business

- 1.1. The chair welcomed members to the meeting and introduced Deborah McClean and Gillian Weale as the sub-panel's adviser and secretary for the assessment phase.
- 1.2. In the light of the attendance, the sub-panel confirmed its competence to do business.

2. Conflicts of interest

2.1. Sub-panel members reviewed the register of their declared major conflicts of interest and confirmed they were correct. If changes occurred to their major conflicts, members were advised to update them via the panel members' website (PMW). In the case of minor conflicts of interest, these should be notified by webmail to the chair, who would decide how to handle each case, with a copy to the secretary for the record.

3. Output calibration

- 3.1. The chair introduced the calibration exercise. He had selected 16 outputs from the submissions to UOA18, which all sub-panel members had read in advance of the meeting. These outputs had been chosen to avoid major conflicts of interest so that all sub-panel members could participate in the whole of the calibration exercise. Sub-panel members had assigned a score to each output in the sample, on the scale U-4, with half scores available for use. They had also been asked to assess their familiarity with the area of each output, on a scale of 0-10, 10 being most familiar.
- 3.2. The deputy chair tabled an analysis of sub-panel members' scoring for each output, to provide some context to the discussion. The analysis showed a variety of scores given for each output by different sub-panel members, but the chair reminded sub-panel members that the purpose of the calibration exercise was to discuss these differences and arrive at a convergence of views, and ensure assessments were made in accordance with the criteria. Analysis of the results showed that familiarity with the field did not have a significant impact on the scores given, and that differences between sub-panel members were mostly about the average score to be awarded than about the relative merits of different papers: in particular, there was clear agreement on the highest- and lowest-scored outputs
- 3.3. The chair reported on the calibration exercise undertaken at the Main Panel C meeting on 23 January, at which five outputs from each sub-panel had been discussed. He referred to the extract from the minutes of the Main Panel's meeting which had been circulated (SP18.2.6), which included a series of principles, consistent with the published criteria and working methods, agreed by the Main Panel. There were also points in the minutes relating to the application of criteria and level descriptors which the sub-panel noted.
- 3.4. The sub-panel discussed each output selected for calibration, following an assessment of the piece by an expert rapporteur. Discussion focussed on the application of the criteria in the light of characteristics and issues emerging from the sample outputs. Two members declared a minor conflict of interest in one of the outputs but did not leave the room for discussion, in accordance with the

chair's decision that all sub-panel members should participate fully in the calibration exercise.

- 3.5. The application of the criteria were discussed in relation to the occurrence of characteristics such as:
 - How significant, difficult, important or novel was the question being addressed.
 - The robustness and of the methodological approach and whether it was possible to repeat the study from the information available within the output.
 - The soundness of any statistical analysis employed.
 - The size of any data sample used.
 - The persuasiveness and coherence of the argument.
 - The extent to which the author(s) drew attention to limitations and constraints in their approach or conclusions.
 - How consistent the conclusions were with the findings or evidence presented.
 - The extent to which the output set the agenda for future research, or represented incremental progress in the field.
 - How widely findings could be applied outside the area in question.
 - How far the findings confirmed existing knowledge, or overturned it.
- 3.6 In addition the panel confirmed, in accordance with the criteria, that:
 - The journal in which an output had been published was irrelevant to the assessment of its quality, which should be on the basis solely of the published criteria. The scoring analysis of the calibration sample demonstrated that journal rankings were unrelated to panel members' scoring of outputs. However, it was agreed that the quality of a journal could be taken as a signal of how thoroughly the originality of a paper had been checked, thus avoiding the need for sub-panel members to review the background literature.
 - The whole range of scores (U-4) should be used. Half-scores would be used by the sub-panel in making its judgements until the latter stages of the assessment.
 - It would be important to balance the views of panel members who were experts in any sub-field with the views of those with a more general perspective.
 - An output concerned with a particular, and possibly very small, geographical area or location could nevertheless be 'internationally recognised', 'internationally excellent' or 'world-leading'.
 - As far as possible, outputs should be judged on their intrinsic merits rather than on the reviewer's impressions of the sub-field or approach to which they contribute. Examples of papers in controversial fields such as "Freakonomics" or "Fresh-water macroeconomics" were discussed, and it

was agreed that the criteria should be applied to such outputs on their own terms.

- 3.7 The sub-panel discussed use of citation data in its assessment of outputs. The chair referred panel members to the paper SP18.2.2. Contextual data on citation rates was also available for reference on the PMW. The chair presented a graph showing the pattern of citations across the 2,558 outputs submitted to SP18. They followed an approximate power law with a coefficient greater than 0.5: many papers get very few citations (940 had none at all, only 1,286 had 2 or more, only 411 had ten or more), while the bulk of citations accrued to a very small number of papers (only 2 had more than 200 citations, only 43 more than 40). The chair reminded sub-panel members that the only citation data which could be used during the assessment of outputs were those provided on the personal spreadsheets, which come from the proprietary Scopus database and were frozen at the submissions deadline. He also noted at least one major error in the numbers (which had been notified to the REF team). Given all these issues, in addition to standard problems with citations in general (potential for manipulation, need to correct for number of years elapsed and for systematic differences in citation patterns across sub-fields, etc.), the citation data were unlikely to be of significant help, and should only be used with great care and as supplementary information, in accordance with 'Panel Criteria', part 2C, paragraph 67.
- 3.8 The chair explained that Main Panel C would be able to see the scoring of outputs in real time during the assessment phase, in order to take an overview of sub-panels' progress and review calibration if necessary.

4. Output allocation arrangements

- 4.1 The chair outlined his approach to the allocation of outputs. Each submission had been allocated to three lead panel members, who would oversee the complete submission in each case: outputs, impact and environment. Each panel member had been allocated an average number of outputs to assess, but this was before an expected c1200 outputs had been cross-referred from SP19: Business and Management Studies. Second readers had been assigned in order to keep submissions together and blocks of outputs from staff members together, but not every output would be read twice. Where two readers had been assigned to a paper, they should feel free to confer by phone or email to reach an agreed grade. Duplicate outputs needed to be allocated to the same panel member and the secretary would run a report on duplicate outputs to assist with this.
- 4.2 The chair had already approved the cross-referral of a number of outputs to SP10: Mathematical Sciences and SP4: Psychology, Psychiatry and Neuroscience, which had been requested by the submitting institutions. In the case of other outputs where cross-referrals had been requested, he was confident that the panel was competent to assess them. Panel members were asked to contact the chair if they encountered an output which they felt should be cross-

referred. It was not expected that there would be many more of these, and it remained the responsibility of this sub-panel to determine the final score of any item it had cross-referred.

- 4.3 Two outputs submitted to SP18 which had requested consideration for doubleweighting had been reviewed by the chair, who had agreed to the requests in both cases. Panel members assigned to read these outputs would need to make an assessment of their quality only.
- 4.4 Only one output submitted to SP18 was in a foreign language: arrangements were made to have this read by a suitably skilled member of the panel so there would be no need to request specialist advice.

5. Audit

5.1. The panel's attention was drawn to paper SP18.2.3 which outlined the procedures for audit. Potential issues requiring audit (e.g., personal circumstances, submitted members who hold full-time appointments at a foreign institution, etc.) were discussed and panel members were advised to raise audit queries with the secretary, via REF webmail, giving full details of their query.

6. IT systems

6.1 The adviser gave a short briefing on how to use the REF IT systems. Members could request further help from her or the secretary or from the REF admin team.

7. **Project plan and future meetings**

- 7.1. The sub-panel reviewed the project plan which outlined what work would be done at each meeting and the preparation required between meetings. The chair drew attention to the output reading targets and advised panel members of the order in which he would like outputs to be read in advance of the meeting on 11 March. These arrangements would be confirmed in an email to panel members.
- 7.2. Impact calibration would take place at the meeting on 10 March, at which the impact assessors would be in attendance. The chair would be making the selection of case studies for calibration, and confirming the allocation of impact submissions very shortly and would email panel members with further information once this was done. Main Panel C would be undertaking a calibration exercise at its meeting on 6 March.
- 7.3. The next meeting would take place on 10 and 11 March 2014 at the Grand Connaught Rooms, London.

8. Any other business

8.1. There being no other business, the chair thanked members for their attendance and contribution, and closed the meeting.



REF Sub-panel 18: Meeting 3 Part 1

10 March 2014

Grand Connaught Rooms, London

Minutes

Present:

Oriana Bandiera **Timothy Besley** David Blackaby Stephen Bond Sarah Brown Will Cavendish **Diane Coyle** Nicholas Crafts Janet Finch (main panel chair) Amelia Fletcher Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Ben Lockwood Rachel Lomax Michael Kell Deborah McClean (adviser) David Miles Peter Neary (chair) Jorge Padilla Stephen Pudney Dave Ramsden Mark Robson (main panel member) Duncan Shermer (REF team) Alan Sutherland Martin Walsh (main panel member) Adrian Wood Ian Walker Gillian Weale (secretary)

Apologies:

Jonathan Thomas

1. Introduction and competence to do business

- 1.1. The chair welcomed everyone to the meeting and introduced the impact assessors, attending for the first time. He also introduced members of Main Panel C, and a member of the REF team, attending as observers.
- 1.2. In the light of the attendance, the panel confirmed that it was competent to do business.

2. Register of interests

2.1. The panel reviewed the register of their declared major conflicts of interest and confirmed they were correct. The chair reminded members that updates to major conflicts of interest should be made via the panel members' website (PMW). Minor conflicts should be notified by webmail to the sub-panel chair and copied to the secretary for the record.

3. Impact calibration

- 3.1. The chair introduced the calibration exercise, the purpose of which was to look at a selection of outputs and work towards a common view of the how the criteria of 'reach' and 'significance' should be applied across the four star ratings. The outputs selected for calibration had been chosen from institutions where no-one on the panel had a conflict of interest. Panel members and impact assessors had been asked to score nine impact case studies and two impact templates and submit their scores to the secretary in advance of the meeting. A guidance paper and extracts from the documents 'Assessment framework and guidance on submissions' and 'Panel criteria and working methods' had also been circulated in advance of the meeting.
- 3.2. The chair drew the panel's attention to the five threshold criteria which should be applied when reviewing case studies. If any of these criteria were not met, the case study would be awarded a 'U'. There was the option to audit against the threshold criteria if there was insufficient information in the case study to determine whether the threshold criteria had been met, but on the whole the case study was intended to be self-contained, and should be assessed on the basis of how far the claim made about impact had been supported by evidence within the document. Therefore the quality of the underlying research and the sources of corroborating statements should only be followed up by an audit query where there was a risk of the case study being awarded a 'U'. Audit queries should be raised through the secretariat only.
- 3.3. On the matter of the quality of the underlying research supporting a case study, it was emphasised that as long as the 2* threshold was reached, no further judgement of the research should be made. Instead the focus of judgement

should be on the quality of the impact claimed. If impact assessors were in doubt as to the quality of the research, they could discuss this with the academic members of the sub-panel. Negative or detrimental impact was not eligible, but serendipitous or unplanned impact was acceptable.

- 3.4. The chair reminded members that the impact templates account for 4% of the total profile and were designed to give the submitting institutions an opportunity to describe their approach to impact. They were also to be judged on the criteria of 'reach' and 'significance'.
- 3.5. The deputy chair presented an analysis of the scores that panel members had submitted in advance of the meeting. The sub-panel then discussed each case study and impact template, during which the following general points emerged:
- 3.5.1. An absolute, direct correlation between the research and the impact was likely to be rare, and so not being able to demonstrate a strict chain of causality would not necessarily rule out a high score.
- 3.5.2. The sub-field of the research, the narrowness or otherwise of the research question and the organisations or field in which the impact was claimed would need to be taken into account when judging the quality of a case study.
- 3.5.3. Improving the quality of public debate in the media was an eligible instance of impact. Similarly impact could be achieved through influencing policy debate, even if the policy did not change.
- 3.5.4. The sub-panel was reminded of the dates between which impact could be claimed, and the period in which the underlying research needed to have taken place. Research published towards the end of the eligible period, or after the time during which impact was claimed, could reflect delays in publication, rather than the impact's having happened in advance of the research being undertaken.
- 3.5.5. Judgement of the impact templates should extend beyond the quality of the drafting to the substance of what was taking place in each submission.
- 3.5.6. It was reasonable, and expected, but not mandatory, for submitting units to refer to wider institutional structures and support for impact in their impact templates.
- 3.6. The chair reported on the calibration exercise by MPC, which had met on 6 March 2014. The Main Panel had discussed a selection of case studies and impact templates from across the sub-panels in its remit, some in plenary session, and some in breakout groups. Minutes of this discussion, which included general points on both the case studies and impact templates would be circulated to the sub-panel for reference.

- 3.7. The chair made some contextual comments about the purposes of the REF exercise more broadly, and confirmed that the sub-panel was responsible for assessing and scoring according to its judgement, and within the framework of the published criteria. The Main Panel would be looking at scores from all the sub-panels during the assessment period.
- 3.8. The chair had allocated impact case studies and templates and these allocations were now available via panel members' personal spreadsheets. Both case studies and impact templates would be read by academic members of the panel and impact assessors, although it was expected that the academic members would take the lead in the assessment of the impact templates.

4. Impact audit

4.1 Confirming the discussion under item 3.2 above, the chair drew attention to the guidance in SP18.3.2 concerning the audit of impact case studies. Several members had identified candidates for audit in advance of the meeting and these would be pursued. Any further cases should be raised with the secretary as soon as possible, so that the results were available in time for the meeting on 21 May.

5. Future meetings

- 5.1 Between this meeting and the next meeting on 21 May, panel members and impact assessors were asked to read all the impact material, with a view to confirming impact sub-profiles and completing the assessment of impact in May. In order to keep to this schedule, members and assessors were encouraged to hold bilateral discussions in advance of the next meeting, and arrive at agreed scores where possible.
- 5.2 The next meeting at which impact assessment would be discussed was scheduled for 21 May 2014, at Felbridge Hotel and Spa, East Grinstead

6. Any other business

6.1. There being no other business, the chair thanked colleagues for their contribution and closed the meeting.



REF Sub-panel 18: Meeting 3 Part 2

11 March 2014

Grand Connaught Rooms, London

Minutes

Present:

Timothy Besley David Blackaby Stephen Bond Sarah Brown Nicholas Crafts Janet Finch (main panel chair) Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Ben Lockwood Deborah McClean (adviser) David Miles Peter Neary (chair) Jorge Padilla Stephen Pudney Alan Sutherland Ian Walker Gillian Weale (secretary)

Apologies:

Oriana Bandiera Jonathan Thomas

1. Introduction and competence to do business

- 1.1. The chair welcomed members and introduced Janet Finch, chair of Main Panel C, who would be attending for part of the meeting.
- 1.2. In the light of the attendance, the panel confirmed that it was competent to do business.

2. Minutes of the previous meeting

2.1 The sub-panel confirmed that the minutes of the previous meeting held on 29 January 2014 were an accurate record of discussion.

3. Register of interests

3.1. The panel reviewed the register of their declared major conflicts of interest and confirmed they were correct. Members agreed to record any amendments to major conflicts via the Panel Members' website, and to email minor conflicts to the chair and secretary for a decision and for the record.

4. Outputs assessment

4.1. The chair gave an update on progress so far. In addition to the c1100 items being cross-referred to the sub-panel from SP19: Business and Management studies, smaller numbers of items had been cross-referred from a handful of other panels. In terms of cross-referrals out, one item had been sent to SP4 Psychology, Psychiatry and Neuroscience, and approximately 34 items had been sent to SP10 Mathematics and Statistics. From the assessment of outputs undertaken so far, the following issues had emerged:

4.2 Double-weighted outputs

- 4.2.1 The vast majority of outputs submitted to the sub-panel were journal articles, but there was provision outlined in Section C2, paragraphs 50-56 of 'Panel criteria and working methods' to submit a request to double-weight outputs of 'extended scale and scope'. Any such requests had to be accompanied by a 100-word statement to justify the request. The sub-panel would need to decide whether or not to accept requests for double-weighting within its unit of assessment, this decision being separate from the judgement of the quality of the output. In some cases the decision on double-weighting would require consideration of the justification statement and features of the output itself.
- 4.2.2 The sub-panel noted the discussion of the double-weighting issue at the Main Panel C meeting on 5 March, and made decisions on the claims for double-weighting in submissions to it.
- 4.2.3 One panel member with a major conflict of interest left the room for this discussion.

4.3. Co-authored outputs in the same submission

4.3.1. It was permitted to submit the same co-authored output against different authors within the same submission, as outlined in Section C2, paragraphs 47-48 of the 'Panel criteria' document. Institutions so doing were required to include a 100-

word statement to describe the 'distinct' nature of each co-author's contribution, and there was an expectation that the output should be 'substantial' overall.

- 4.3.2. The discussion of this issue at the Main Panel C meeting on 5 March was noted, and it was agreed that decisions would be taken on a case by case basis in order to ensure fairness. Where it was not possible to determine that the case was made for co-authorship from reading the output, or there was a risk of grading the piece Unclassified, an audit query should be raised.
- 4.3.3. Cases would be reviewed by the sub-panel at a later stage in the assessment of outputs and the secretariat would provide a full list of duplicate outputs within the same submission in time for that discussion.
- 4.3.4. Two panel members with major conflicts of interest left the room for this discussion.

4.4. Staff on part-time contracts

- 4.4.1. Several cases had been identified in submissions of staff on the minimum fractional contract (0.2FTE) for eligibility to be returned in the REF with four outputs. Although their inclusion was completely compliant with the published guidance, in some cases, knowledge within the panel membership suggested that these staff were already employed on full-time contracts at overseas institutions.
- 4.4.2. It was agreed that any such cases should be audited to ensure the correct contractual position, and that, where relevant, instances of these fractional contracts could be reflected in scores given to environment statements. The general approach to be adopted would be discussed by the whole sub-panel, but the final decision on whether and how environment grades should be amended should be taken by non-conflicted members only.
- 4.4.3. Some comment on the practice might be included in any feedback from the subpanel on the REF at the end of the exercise.

4.5. Outputs with significant material in common

- 4.5.1. A member had come across an instance where the same model had been run on two different datasets, and the results presented in two outputs submitted against the same authors in the submission. On its own either paper might score highly, but taken together, the second looked less original.
- 4.5.2. It was agreed that a view could be taken on the level of originality in the second output, but that there could be value in repeating the model on different data, in the interests of checking its robustness, and refining analysis.

- 4.6. In preparation for this meeting, members had been asked to read all outputs allocated to them from 12 institutions where no-one had a conflict of interest. Provisional profiles for these institutions based on scores uploaded by sub-panel members were displayed, and emerging issues discussed, as follows:
- 4.6.1. Review and handbook articles should be treated on their own terms as with any other type of output, and members should be prepared to score such pieces across the full range of marks.
- 4.6.2. Where there was a risk of awarding a score of Unclassified/0 to an output, the chair would assign a second reader.
- 4.6.3. The limitations of the citations data provided with submissions to this sub-panel were reiterated.

5. Future meetings

- 5.1. At the next meeting on 22 May, the sub-panel would be looking at provisional profiles for 50% of outputs. The chair would circulate further instructions in due course to direct members' reading, but emphasised that the reading of impact case studies and templates took priority at this point.
- 5.2. The chair also anticipated completing the allocation of cross-referred items from SP19 between this meeting and the next, and so draft profiles would include scores for these outputs as well.
- 5.3. The panel executive group would consider the data analysis required for the next meeting.
- 5.4. The next meeting was scheduled for 21 May (impact) and 22 May 2014 (outputs) at Felbridge Hotel and Spa, East Grinstead.

6. Any other business

6.1. There being no other business the chair thanked members for their contribution and closed the meeting.



REF Sub-panel 18: Meeting 4 Part 1

21 May 2014

The Felbridge Hotel and Spa, East Grinstead

Minutes

Present:

Oriana Bandiera **Timothy Besley** David Blackaby Stephen Bond Sarah Brown Will Cavendish **Nicholas Crafts** Amelia Fletcher Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Ben Lockwood Rachel Lomax Michael Kell Deborah McClean (adviser) David Miles Peter Neary (chair) Jorge Padilla Stephen Pudney Dave Ramsden Mark Robson (main panel member) Alan Sutherland Jonathan Thomas Adrian Wood Ian Walker Gillian Weale (secretary)

Apologies:

Diane Coyle

1. Introduction and competence to do business

- 1.1. The chair welcomed members to the meeting and thanked colleagues for their work in preparation for it.
- 1.2. In the light of the attendance, the panel confirmed that it was competent to do business.

2. Minutes of the previous meeting

2.1 The sub-panel confirmed that the minutes of the previous meeting held on 10 March 2014 were an accurate record of discussion.

3. Register of interests

3.1. The panel reviewed the register of their declared major conflicts of interest and confirmed they were correct. Members were reminded to keep declarations of their major conflicts up to date via the panel members' website and their minor conflicts via REF webmail to the chair and secretary.

4. Impact assessment

- 4.1. The chair prefaced the discussion of impact submissions by referring to the progress made on impact assessment discussed at the last Main Panel C meeting held on 24 April. In particular sub-panel chairs had been asked to encourage their sub-panels to use the full range of scores when assessing impact, and not to compromise at the mean where there was difficulty in agreeing scores. The chair reminded members that, although half-scores were available for award against each impact case study and impact template, each submission's final impact profile would be expressed as integers 0-4.
- 4.2. In advance of the meeting, all sub-panel members and impact assessors had read their allocation of case studies and templates. Each case study has been read by one academic member of the panel and one impact assessor. Each impact template had been read by two academic members and two impact assessors. Members and assessors had submitted their scores for each impact item without conferring to reach an agreed score before the meeting. The chair presented a summary of the scores submitted by reader, and noted that the scoring patterns of academic members and impact assessors was broadly consistent. The purpose of the discussions in this meeting was to reach a panel agreed score for each impact item and agree sub-profiles for each impact submission. Comments for feedback reports, both on the exercise as a whole, and on individual submissions, would also be collected.
- 4.3. The secretary projected draft impact sub-profiles based on scores submitted by panel members and assessors. Each submission was discussed in turn, and

scores were agreed for all case studies and templates, highlighting the reasons for these scores with reference to the criteria of 'reach' and 'significance' and the level descriptors. Detailed discussion was focussed on cases and templates where there was a wide disparity in scores submitted by individual readers, or where a score of 'unclassified' had been recommended. The sub-panel agreed provisional scores for a small number of case studies where further audits were required to determine whether the 2* quality of the underlying research criterion had been met.

- 4.4. Following this discussion, the sub-panel reviewed the revised impact sub-profiles based on panel agreed scores. It was agreed to circulate these, with comments on individual submissions, to the lead assessor for each submission. They were asked to complete a draft comment for the impact section of the feedback report to submitting institutions as soon as possible after the meeting. The secretary would circulate guidance from the REF team on feedback reports to assist sub-panel members with this task. Members and assessors were also invited to submit any general reflections on the process of assessing impact in relation to Economics and Econometrics, to inform the sub-panel's section of Main Panel C's feedback report.
- 4.5. Members of the sub-panel absented themselves from discussions of impact submissions from institutions with which they had conflicts of interest.

5. Audit

5.1 The secretary tabled a report showing the audits raised on impact case studies, and the outcomes received.

6. Future meetings

6.1. There were no further meetings scheduled at which impact would be discussed.

7. Any other business

7.1. There being no other business the chair thanked the impact assessors warmly for their contribution and closed the meeting.



REF Sub-panel 18: Meeting 4 Part 2

22 May 2014

Felbridge Hotel and Spa, East Grinstead

Minutes

Present:

Oriana Bandiera Timothy Besley David Blackaby Stephen Bond Sarah Brown Nicholas Crafts Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Ben Lockwood Deborah McClean (adviser) David Miles Peter Neary (chair) Stephen Pudney Alan Sutherland Jonathan Thomas Ian Walker Gillian Weale (secretary)

Apologies:

Jorge Padilla

1. Introduction and competence to do business

- 1.1. The chair welcomed members to the meeting, at which progress with the assessment of outputs was to be discussed.
- 1.2. In the light of the attendance, the panel confirmed that it was competent to do business.

2. Minutes of the previous meeting

2.1 The sub-panel confirmed that the minutes of the previous meeting held on 11 March 2014 were an accurate record of the discussion.

3. Register of interests

3.1. The panel reviewed the register of their declared major conflicts of interest and confirmed they were correct. Members were reminded to keep declarations of their major conflicts up to date via the panel members' website and their minor conflicts via REF webmail to the chair and secretary.

4. Outputs assessment

- 4.1. In advance of this meeting, members had been asked to read and submit scores for a minimum of 50% of their allocation of outputs overall, and for 100% of their allocation in relation to a selection of submissions. This target had been exceeded and draft sub-profiles, based on 75% of outputs scored, were presented. It was agreed that, where readers had submitted integer scores, that these would be accepted as panel agreed scores. In advance of the next meeting, members were asked to review outputs where they had lodged half-scores and replace these with integer scores. Notes of previous scores could be kept in the Comments field of the spreadsheet in case these needed to be revisited by the sub-panel at a future meeting. Where outputs were being read by more than one sub-panel member, both were asked to upload their agreed score.
- 4.2. The sub-panel discussed draft output sub-profiles for each submission, in the context of emerging sub-profiles for other panels which had been reviewed at the Main Panel C meeting on 24 April, and the points made during the calibration exercise. It was confirmed that journal title was not taken as a proxy for quality in terms of the level descriptors for this assessment, but that citation data could be used by members to help in their assessment of individual outputs. Members were reminded that the views of other sub-panel members could be sought if they were experiencing difficulties assessing an output in their allocation.
- 4.3. The sub-panel discussed a number of outputs submitted more than once by the same institution, and the application of paragraphs 48 and 49 of 'Panel criteria and working methods'.
- 4.4. The chair had since the previous meeting allocated the outputs cross-referred from Sub-panel 19 to members of this sub-panel. Members were requested to read their allocation of cross-referrals from this and other sub-panels and submit their scores to the secretary by 16 June, so that the results were available to the chair in time for the next Main Panel C meeting on 19 June. Comparative data on scoring of cross-referred outputs and outputs originally submitted directly to SP18 would be presented at the sub-panel's next meeting in July.

4.5. Members of the sub-panel absented themselves from discussions of outputs from institutions with which they had conflicts of interest.

5. Future meetings

- 5.1. The next meeting was scheduled for 17 and 18 July 2014 at the Felbridge Hotel and Spa, East Grinstead.
- 5.2. In addition to continuing with the assessment of outputs, the calibration exercise for environment would take place at the July meeting. The secretary would circulate further information on the preparation required for this in due course. Feedback reports would also be progressed further.

6. Any other business

6.1. There being no other business, the chair thanked members for their contribution and closed the meeting.



REF Sub-panel 18: Meeting 5

17 July 2014

Felbridge Hotel and Spa, East Grinstead

Minutes

Present:

Oriana Bandiera David Blackaby Stephen Bond Sarah Brown Nicholas Crafts Janet Finch (chair, Main Panel C) Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Ben Lockwood Deborah McClean (adviser) David Miles Peter Neary (chair) Stephen Pudney Alan Sutherland Jonathan Thomas Ian Walker Gillian Weale (secretary)

Apologies:

Timothy Besley Jorge Padilla

1. Introduction and competence to do business

- 1.1. The chair welcomed members to the meeting and introduced Janet Finch, chair of Main Panel C who would be attending for some of the discussion.
- 1.2. In the light of the attendance, the panel confirmed that it was competent to do business.

2. Minutes of the previous meeting

- 2.1. The sub-panel confirmed that the minutes of the previous meeting held on 21 and 22 May (Parts 1 and 2) were an accurate record of the discussions.
- 2.2. The chair reported on the discussion of impact assessment which had taken place at the Main Panel C meeting on 19 June. The Main Panel had reviewed emerging impact sub-profiles at sub-panel level and agreed to undertake an audit of the impact assessment to ensure consistency of judgement across UOAs within its remit. Depending on the outcome of this audit, sub-panels might be asked to revisit their scores.

3. Conflicts of interest

3.1. The panel reviewed the register of their declared major conflicts of interest and confirmed they were correct.

4. Outputs assessment

- 4.1. The draft output sub-profiles, based on over 95% outputs read, were reviewed, along with comparative data from Main Panel C. The scores for outputs cross-referred in from other sub-panels, principally SP19, were also discussed. Scoring patterns for the cross-referred outputs were compared with scores given for outputs submitted to UOA18. A subset of these, which were outputs submitted to both UOA18 and UOA19 by different institutions, were used as a further check on the consistency of scoring by members of SP18. It was agreed that a very small number of the SP19 cross-referrals would have to be returned unscored, as the sub-panel did not have the expertise to judge them. The chair and secretary undertook to communicate with the chair of SP19 on this point.
- 4.2. Having reviewed this data, along with scoring patterns by panel member, it was agreed to undertake some further analysis and review. The deputy chair, with a member of the sub-panel who had no major conflicts of interest with submissions to UOA18, would carry out an econometric analysis of the scores of individual sub-panel members which would be circulated to the sub-panel before the next meeting. Alongside this, all sub-panel members would be asked to critically review all scores for two submissions in the scoring of which they had not previously been involved, and to lead discussion at the next meeting of the sub-panel in September. The secretary would circulate the relevant data to help with this review.
- 4.3. Members of the sub-panel absented themselves from discussions of output subprofiles for institutions with which they had conflicts of interest.

5. Individual staff circumstances

5.1. The secretary reported on the review of individual staff circumstances and confirmed that there was no action required of the sub-panel.

6. Environment calibration

- 6.1. The chair introduced the calibration exercise. In advance of the meeting a sample of four environment submissions from unconflicted institutions had been read and scored by each panel member. These scores were tabled, and each submission in the sample discussed in relation to the criteria of 'vitality' and 'sustainability'. The discussion covered the following broad points:
- 6.1.1. How to treat the variety of sizes of submission (number of staff submitted).
- 6.1.2. How to treat submissions that were clearly in a transitional phase with respect to some or all of staff numbers, grant income, or overall strategy.
- 6.1.3. The possible effect on sustainability within submissions of senior staff on shortterm fractional contracts. This issue had also been discussed at the Main Panel C meeting on 19 June.
- 6.2 The chair had issued the allocation of environment submissions to panel members, with three panellists allocated to each submission. Panellists were asked to score environment submissions without conferring with their fellow readers, and all submissions would be assessed in a plenary session at the September meeting.

7. Feedback reports

7.1. Sub-panel members had made a start on drafts of the impact section of feedback reports. This would also be discussed at the forthcoming MPC meeting on 24 July. A draft of feedback on a submission which had a highly scoring profile, and for which no members had a conflict of interest, was displayed and the sub-panel used this as a basis for discussion of approaches to composing feedback. It was agreed that drawing attention to strengths within a submission was straightforward, but that comments in relation to weaknesses had to be very finely judged, especially if this enabled particular case studies to be identified. It was stressed that all feedback had to be based on the published criteria and be fully justifiable. If there were negative aspects on which the sub-panel wished to give feedback, this might be better done via the SP18 section of the Main Panel report, especially if it applied to more than one submission. Members were encouraged to refer to the guidance issued by the REF team, and circulated following the last

meeting. The adviser and the secretary were also available to help with the drafting of feedback.

8. Future meetings

8.1. The next meeting of the sub-panel will be held on 9 and 10 September at Ettington Chase, Banbury Road, Ettington, Stratford-upon-Avon CV37 7NZ.

9. Any other business

9.1. There being no other business the chair thanked members for their contribution and closed the meeting.



Sub-panel 18: Meeting 6 9 & 10 September 2014 Ettington Chase, Stratford-upon-Avon

Minutes

Present:

Oriana Bandiera Timothy Besley David Blackaby Stephen Bond Sarah Brown Nicholas Crafts Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Ben Lockwood Deborah McClean (adviser) David Miles – Day 1 only Peter Neary (chair) Stephen Pudney Alan Sutherland Jonathan Thomas Ian Walker Gillian Weale (secretary)

Apologies:

Jorge Padilla

1. Introduction and competence to do business

- 1.1. The chair welcomed members to the meeting and, in the light of the attendance, the sub-panel confirmed that it was competent to do business.
- 1.2. The chair updated the sub-panel on discussions at the Main Panel C meeting held on 24 July at which emerging sub-profiles for outputs and impact were reviewed. He had made a number of detailed points to explain the results for SP18, and

following a challenging debate, the Main Panel accepted them without the need for further revision.

2. Minutes of the previous meeting

2.1 The sub-panel confirmed that the minutes of its previous meeting held on 17 July 2014 were an accurate record of the discussions.

3. Register of interests

3.1. The sub-panel reviewed the register of their declared major conflicts of interest and confirmed they were correct.

4. Outputs review

- 4.1. The sub-panel considered the work which had been undertaken over the summer to review all output scores with a view to addressing concerns expressed at Main Panel C meetings about the relatively high output sub-profile scores for SP18. Each panel member had been asked to take a critical look at every score for outputs in two submissions with which they had not previously been involved in grading. The goal was to satisfy themselves that the scores were justified in relation to the criteria for assessing outputs. Readers had been contacted where there were questions or concerns about the scores awarded, and reviewing panellists had in many cases read outputs again to be sure that the proposed score was justified. Each panel member gave a report on the two submissions they had been asked to review, and indicated where they were making recommendations for changes. A small number of changes were proposed for most submissions, and further bilateral discussions with readers took place during the course of the meeting to confirm final scores.
- 4.2. In addition to the detailed review of outputs undertaken at submission level, the sub-panel also considered an econometric analysis of its scoring, both of outputs submitted directly to SP18 and those which had been cross-referred from SP19, Business and Management Studies. The deputy chair introduced the results. The purpose of this analysis was to determine whether or not members of the sub-panel had scored outputs consistently with each other, and whether or not the sub-panel had treated outputs from SP18 and SP19 in the same way.
- 4.3. The analysis consisted of linear probability models for scores, with fixed effects for: each panellist; each submission where the sub-panel had scored five or more outputs; each journal where two or more outputs were scored; type of output; citation count; year of publication; and whether the output was originally submitted to SP18 or SP19. Results were also described by type of submission and type of journal.

- 4.4. The results of the analysis showed that once the fixed effects had been taken into account, there was no difference in the way the sub-panel had scored outputs but had instead applied the criteria consistently across all its work in this area. Where the data could be compared, there was no evidence of systematic differences in scoring based on whether or not the output had been submitted to SP18 or SP19.
- 4.5. The chair presented further data showing the absolute number (rather than the proportion) of outputs scored at each star level within SP18 and in other subpanels within Main Panel C. He noted that SP18 is the only sub-panel in MPC which has fewer 4* outputs in absolute number in REF 2014 than in RAE 2008, and one of only two with fewer 4*+3* outputs. The main explanation for the simultaneous fall in absolute numbers and rise in the proportion of high-scoring outputs is the extreme selectivity of submissions to SP18.Some evidence for this was an analysis which demonstrated the increasing proportion of Russell Group institutions submitting to SP18 from the RAE2001 through RAE2008 and to REF 2014. Having considered both this data and the econometric analysis, panellists were asked to confirm their scores by the end of the week so that stable subprofiles could be referred to when drafting feedback reports.
- 4.6. The sub-panel revisited one impact case study to rehearse the reasons behind the score awarded, confirming that they were satisfied with both the score and how it had been reached. . Given the nature of the impact involved, it was agreed that the details of the assessment of this case study would be reported to the Main Panel, and the user assessor who had been involved would also be reminded of the final outcome.

5. Environment assessment

- 5.1. The sub-panel discussed recommended scores for environment submissions. In advance of the meeting, each environment statement had been allocated to three panel members to read and score. The sub-panel reviewed each run of scores, and a draft sub-profile, based on the median of the three scores, for each submission. The three readers offered comments on the reasons for their scoring, and the sub-panel discussed and came to a final decision on each one.
- 5.2. The presence in some submissions of a significant number of staff on fractional contracts who had nevertheless submitted four outputs, was discussed. It was agreed that the lead assessors for every submission would review this aspect while drafting feedback reports and bring comments to the next meeting. The secretary would circulate the relevant data to enable this.
- 5.3. Final environment sub-profiles would be confirmed at the next meeting, in the light of discussion at the Main Panel C meeting on 1 October.
- 5.4. Members of the sub-panel absented themselves from all discussions about institutions with which they had conflicts of interest.

6. Feedback reports

6.1 Members of the sub-panel were asked to prepare draft feedback reports on all aspects of submissions in time for the next meeting on 22 October. The secretary would circulate data and notes to assist with this. Members were also reminded of the guidance document on drafting feedback reports which was available via the PMW, and included helpful examples.

7. Audit

7.1 The sub-panel received a report on the audits carried out on outputs within the submissions to SP18. This included a systematic audit undertaken by the REF Audit Team to compare outputs submitted to the 2014 REF with those submitted to the 2008 RAE. This audit also checked publication dates. As a result of this audit, four U scores were confirmed by the sub-panel.

8. Future meetings

8.1. The next meeting will take place on Wednesday 22 October at CCT Venues Barbican, Aldersgate House, 135-137 Aldersgate Street, London EC1A 4JA.



REF Sub-panel 18: Meeting 7 22 October 2014 CCT Venues-Barbican, London

Minutes

Present:

Oriana Bandiera Timothy Besley David Blackaby Stephen Bond Sarah Brown Nicholas Crafts Simon Gaechter Rachel Griffith (deputy chair) Andrew Harvey Campbell Leith Deborah McClean (adviser) **David Miles** Peter Neary (chair) Graeme Rosenberg (REF team) Duncan Shermer (REF team) Stephen Pudney Alan Sutherland Jonathan Thomas Ian Walker Gillian Weale (secretary)

Apologies:

Ben Lockwood Jorge Padilla

1. Introduction and competence to do business

1.1. The chair welcomed members to the meeting and, in the light of the attendance, the sub-panel confirmed that it was competent to do business.

2. Minutes of the previous meeting

2.1 The sub-panel confirmed that the minutes of the previous meeting, held on 9 and 10 September, were an accurate record of the discussions.

3. Register of interests

3.1. The panel reviewed the register of their declared major conflicts of interest and confirmed they were correct.

4. Environment assessment

- 4.1. The chair reported on discussions of emerging environment sub-profiles at the Main Panel C meeting on 1 October. There were no actions required of the sub-panel as a result.
- 4.2. The sub-panel reflected on line graphs showing sub-profiles and overall profiles for submissions to UOA18, noting in particular the relationship between each sub-profile and the overall profile.
- 4.3. An econometric analysis, which compared scores given to outputs submitted by early career researchers with those submitted by non-early career researchers, was considered. This demonstrated no significant difference in the scores awarded to outputs from these two groups of submitted staff.

5. Overall profiles and feedback reports

- 5.1. The sub-panel reviewed the draft feedback for a selection of the larger and more complex submissions to the UOA, in the light of final sub-profiles and overall profiles. It agreed some common drafting principles to ensure consistent feedback to all submitting institutions. Particular consideration was given to feedback on submissions in which there was a significant number or proportion of staff on fractional and/or fixed-term contracts who had also submitted four outputs. Members were requested to finalise feedback statements by 31 October.
- 5.2 The sub-panel confirmed recommended output, impact and environment subprofiles and an overall quality profile for each of the following submissions to the UOA, based in each case on its full and final assessment of the complete submission, made in accordance with the published criteria and working methods:

University of Aberdeen Birkbeck College University of Birmingham University of Bristol Brunel University University of Cambridge City University, London University of East Anglia University of Edinburgh University of Essex University of Exeter University of Glasgow University of Kent University of Leicester London School of Economics and Political Science University of Manchester University of Nottingham University of Oxford Queen Mary, University of London Royal Holloway, University of London University of Sheffield University of Southampton University of St Andrews University of Surrey University of Sussex University College London University of Warwick University of York

- 5.3 The sub-panel resolved to recommend the quality profiles for each of the submissions listed above, as set out in the panel spreadsheet, to the main panel for agreement.
- 5.4 Members of the sub-panel left the room for the discussion of submissions with which they had a major conflict of interest.
- 5.5 The sub-panel also discussed a draft of the overview report, and delegated to the chair the right of Main Panel C to edit the subject overview report at its meeting on 28 October. Members of the sub-panel were invited to send any further comments on the drafting to the chair in advance of this date.

6. Data security and return of materials

6.1. The sub-panel was reminded of the confidentiality arrangements surrounding its deliberations and the results as the assessment entered the closing stages. The results would be published on 18 December, after which information in the public domain could be discussed. Feedback reports on submissions would remain confidential to submitting institutions.

7. Any other business

7.1. Warmest thanks were expressed to all members, the chair, deputy chair and secretariat for their hard work and contribution across the period of the assessment.