REVIEW OF THE BBSRC NEW INVESTIGATOR SCHEME AND SUPPORT FOR EARLY-CAREER RESEARCHERS

SUMMARY

This report presents a review of BBSRC's New Investigator (NI) scheme undertaken by a cross-Office working group. The NI scheme operates within responsive mode grant funding to support applications from academics meeting the scheme's criteria for being regarded as 'new investigators'. Recent developments in BBSRC's policy with regard to postdoctoral researchers on grants are also outlined.

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BACKGROUND

- The BBSRC's New Investigator (NI) scheme formally came into being in 2001 although
 there were variations in operation before that date. After five years, it is timely to review
 the scheme and its success in encouraging new investigators into research. It is also
 timely to consider the implications of the implementation of full economic costing, which
 has necessitated changes to the scheme.
- 2. An Office working group was established to seek views from applicants under the scheme, both successful and unsuccessful, as well as from heads of departments and peer reviewers. The group also reviewed internal data on the NI scheme as well as similar schemes operating within other Councils.

BBSRC Support For Early Career Researchers

- 3. BBSRC's NI scheme is aimed at applicants from eligible institutions in their first appointments at lecturer level or above. Its purpose is to assist those individuals to obtain their first research grant at the beginning of their research careers; applicants must be within three years of the start of their first appointment. It therefore targets support on a specific and important phase of the career ladder: the initial years of appointment to a university lectureship or Band 5 Senior Postdoc in BBSRC-sponsored institutes, or equivalent. Applications are judged against the same criteria as other responsive mode proposals.
- 4. The NI scheme is one of a range of mechanisms which BBSRC has in place to support career development for early-career researchers. Others include:
 - the David Phillips Fellowship
 - Research Co-Investigator status on a research grant
 - RCUK Academic Fellowships
 - Roberts Skills funding for professional skills development for postdocs
 - Annual Next Generation careers conference for BBSRC students and postdocs

Support for Postdoctoral Researchers: Grants as Investments in People

- 5. The funding of research assistant and postdoctoral researcher posts on grants represents a considerable investment in people by Councils. The RCUK Research Careers and Diversity Unit is leading on a number of new activities to ensure that the importance of the postdoctoral career phase as a vital training and career development phase for researchers is properly recognised. A key project here is the revision of the 1996 Concordat on career development for postdoctoral researchers, with the aim of developing a new UK Code of Practice for the Management and Development of Researchers supported by all major UK research funders
- 6. RCUK is also leading the development of a new Research Careers Mapping Tool to provide early-career researchers with a range of resources to help them navigate the variety of research career paths open to them. Both of these projects are being led by RCUK under the auspices of the UK Research Base Funders' Forum.
- 7. Within BBSRC Office, discussions have been held with regard to how best BBSRC can seek to ensure that, where it is funding staff on a grant, the investment represents a good long-term investment in the people, as well as in the science. As a result of these discussions, Committee Chairs have agreed an addition to the Competitive Appraisal Factors for grant applications. The new factor will enable

Committees to take account of the potential of the grant proposal to offer important long-term benefits in regard to the development and training of the staff to be employed on the project.

REVIEW OF BBSRC'S NEW INVESTIGATOR SCHEME

- 8. The NI scheme offers an important mechanism for BBSRC to be able to target support for researchers in the early stages of their academic careers through the responsive mode system. The review of the scheme was designed to assess how well it is meeting its aim of assisting new research staff to establish themselves as academic bioscience researchers, and considered in particular:
 - the eligibility rules
 - the assessment of applications
 - the administration of the scheme
 - the subsequent success of researchers supported through the scheme
- 9. The working group drew mainly on the following information:
 - responses to questionnaires sent to a sample of applicants to the scheme since its inception in 2001
 - input from heads of university bioscience departments
 - data on NI and other responsive mode applications taken from Gabriel, the BBSRC grants processing system
 - the databank of queries from potential applicants to the NI scheme.

CHARACTERISTICS OF CURRENT NI SCHEME

Eligibility

- 10. In order to qualify as a 'New Investigator' under the scheme, applicants must satisfy specific eligibility criteria these are listed in full at **Annex B**. In summary, applicants must:
 - be within three years of the start date of their first appointment at the time of the closing date for submission to the grant round in which the application will be assessed.
 - not have received grant funding of more than £150k
 - normally be the sole applicant; however, to encourage interdisciplinarity, a coapplicant who is from a discipline other than biological sciences, may be included
 in the application; also if the New Investigator is from a non-biological science
 discipline, a co-applicant from the biological sciences may be included.
- 11. In addition, a letter of support for the Head of Department is required, describing the financial contribution from the institution to the start-up costs of the applicant's laboratory. Applicants who fail to qualify under the scheme may still be able to apply under the normal responsive mode mechanism.
- 12. The aspect of the NI eligibility criteria which has most often been reviewed is the stipulation that an applicant must not have received grant funding of more than £150k; this threshold was raised from £45k in the summer of 2004. This cap results in many applicants being rejected under the scheme, including for example, where the applicant has received an equipment only award. Difficulties with the setting of a cap on previous grant funding again came to light as part of the current review (see below), but the implications of full economic costing (fEC) mean that this rule would again require revision, if it is to be retained.

Assessment of NI applications

13. NI applications are assessed and scored by the BBSRC committees in the same way as, and alongside, standard responsive mode applications. This aspect of the NI scheme has long been regarded as one of the scheme's strengths. After the meeting, NI applications are "boosted" so that any scored within a small margin of the funding cut-off, and therefore crossing a strict quality level, are also funded.

Levels of awards

- 14. When the NI scheme was formally launched, the amount awarded was capped at £250k for a three year award. However, the introduction of full economic costing (fEC) in April 2006 resulted in the removal of this limit because value limited schemes are inconsistent with the principles of fEC. Although some Councils have retained value limits for the time being, these are expected to be phased out over the coming years.
- 15. New Investigators are now therefore able to apply for the level of funding they deem necessary to undertake their proposed research project. It is for peer review to determine the suitability of this as well as the appropriate level of funding to award. Early indications suggest that applications from NIs under fEC have been at levels akin to normal responsive mode applications.

FEEDBACK ON THE NI SCHEME FROM THE COMMUNITY

Applicants

- 16. Questionnaires were sent to 305 applicants to the NI scheme to seek their views on the strengths and weaknesses of the scheme, as well as to canvass for ways in which it might be improved.
- 17. The sample of 305 was taken from a total of 553 NI applications received since 2001, and was designed to cover all years and all committees; 127 of the 304 applicants (42%) were successful. Among the 127 successful applicants the sample comprised representative numbers of those who had scored above the formal "cut off" for funding, and those who had been "boosted" (see paragraph 13). The overall response rate to the questionnaire was 52% (158 responses) but, as might be expected, rather more responses were received from successful applicants (89) than from unsuccessful (69). The main points made in the responses are set out in the following paragraphs, and greater detail is provided at **Annex C**.
- 18. A consideration of all 158 responses showed that:
 - there were no significant differences between 'funded' and 'unfunded' in terms of seniority, age or years since finished PhD
 - the majority of respondents:
 - o were lecturers at time of application (87%), and are still lecturers (80%);
 - o were less than 36 years old at time of application (63%); and
 - had finished their PhD either 4-6 years (38%) or 7-9 years (35%) previous to applying.
 - rather few had returned from a career break: funded 2%, unfunded 10%.
 Although it appears that those returning from a career break might be less likely to be awarded an NI grant, the numbers were too low to conduct a statistical test accurately
- 14. In relation to the grants awarded to successful applicants (89 responses):

- 57% had received additional support (average £19k), almost all from their department
- almost all felt that their grant had or was likely to meet its objectives
- 98% said the grant had significantly facilitated the progress of their career
- 97% indicated that the grant had helped to establish their lab
- 46% felt that the grant had motivated them to stay in research
- 14% identified difficulty with securing further funding because of the competition (being rejected despite excellent referees' comments)
- the majority reported either no publications (48%) or one (25%) (it should be remembered that most of these grants are still active and many very recent)
- the levels of other outputs reported (new products, KT, public engagement, etc) were in similar proportions to, but lower than those reported to date by PIs in the 3 responsive mode evaluation surveys (Animal Sciences; Biochemistry and Cell Biology; Genes and Developmental Biology).

General comments

- 15. The main, high-level message from the questionnaires was that the scheme works well and is fit for purpose. All respondents except one felt that it should be retained. As reported above, 98% of NIs reported that the NI scheme had significantly facilitated the progress of their career.
- 16. 68% of NI applicants stated that they would have applied to BBSRC for grant funding even if there had been no NI scheme but 30% replied that they would have applied to another funding body instead (Wellcome, MRC).
- 17. There was some indication that while the NI scheme was successful and popular, it was not as well promoted as it could be: almost half of the New Investigators who had previously (unsuccessfully) applied to BBSRC had applied to responsive mode first. It was felt that more could be done to publicise the scheme, for example at regional roadshows, perhaps combined with presentations on best practice on completing grant applications for new researchers. There was also potentially a lack of transparency regarding how the NI applications were assessed in practice.

Eligibility and rules

- 18. The questionnaire sought the community's views of the eligibility and other criteria associated with the NI scheme. 42% of funded respondents and 32% of unfunded felt that the scheme is appropriately targeted, applying the right criteria, with 18% of funded and 42% of unfunded expressing the view that the scheme is too restrictive, the most commonly cited restriction being the time limit on length of appointment.
- 19. In terms specifically of eligibility, a higher proportion (24%) of unfunded respondents than funded (8%) had felt restricted by the eligibility: having to be the sole applicant, and the budget cap were identified as particular problems. It was also apparent in some responses that several respondents had misconceptions about the scheme, suggesting the need for the BBSRC to promote further and clarify the rules of the scheme to some members of the community.

Assessment and administration

- 20. The main identified strengths were that applications were judged on potential rather than track record and that the feedback from referees and committees was helpful. Respondents also welcomed the opportunity to respond to referees' comments. There were also a number of very positive comments on the administration of the scheme, with BBSRC staff considered to be helpful and supportive.
- 21. To improve the scheme further, respondents suggested:

- increasing the transparency of the process, and providing information on success rates:
- improving final feedback on funding decisions;
- judging NI applicants separately from "standard" responsive mode applicants;
- ring-fencing a budget for the scheme.

Heads of university bioscience departments

- 22. 33 Heads of departments were also invited to comment on the scheme. Despite chasing responses, the response rate was disappointing, at a little under 40%.
- 23. Some heads of department had personally benefited from the scheme, and all were equally supportive of the scheme, with a general appreciation of the opportunity it offers to allow NI applicants to gain experience of grant writing without allowing poor quality science to be funded. Appreciation of the link with the responsive mode mechanism was also evident. Some responses indicated a preference for the BBSRC approach compared with that of the MRC where New Investigators apply for funding from a separate ring fenced pool. Respondents also felt that the scheme was an essential tool for supporting careers of new researchers.

Feedback overall

- 24. In summary, there was a clear and positive consensus that the scheme:
 - enabled researchers in the very early stages of their career without a research track record to get a foot on the grants ladder;
 - helped to sustain the biosciences community;
 - provided committees with a structure to focus on brining in new blood;
 - offered a helping hand to those who had not applied before.

OFFICE ANALYSIS OF NI APPLICATIONS TO BBSRC SINCE 2001

25. Data held on the BBSRC's grant processing system, Gabriel, was analysed to identify emerging trends in the nature of NI applications since 2001, when the scheme formally came into being. In addition, some of the data gathered from the questionnaires were analysed further to identify whether NI applicants who would not have been funded without the scheme (i.e. those applications which scored above the international quality threshold but below the funding cut off) fared differently from those whose applications would have been funded in any case because they were scored above the cut off.

NI applications compared with responsive mode

- 26. The numbers of NI applications have remained stable over the last five years, (unlike responsive mode applications). The success rate for NIs over the five year period is significantly higher at 37% compared with 29% and, unlike responsive mode, the success rate for NI awards has not significantly fallen since 2001.
- 27. On average the value of NI awards (£204k) is smaller than in standard Responsive mode (£236k), but there is no significant difference in grants duration: in common with responsive mode, the proportions both of shorter (<34 months) and of longer (>38 months) awards have declined over time.

Gender differences

- 28. The proportion of applications from females is significantly higher for NI (27%) than for responsive mode (19%). The success rate for female NIs over the period was 33% compared with 41% for male NIs. This difference is not statistically significant, and the success rate for women appears to be increasing over time, whereas that for men appears to be decreasing. However, it would seem appropriate to keep the situation under review to monitor any systematic differences emerging.
- 29. Female new investigators are significantly more likely to request a shorter grant than their male equivalents (whereas there is no major gender difference for responsive mode). However, the average grant size is similar for both genders.

Successful NI applicants with scores above and below the funding cut off

- 30. In assessing the value of the NI scheme, an important comparison is that between NIs who would not have been funded without the scheme, and those who scored above the normal responsive mode cut-off. It is difficult to give definitive accounts of the relative performance of these two groups, because the groups had different characteristics in terms of when they applied and received funding: on average successful NIs in the assisted group were funded more recently than NIs in the unassisted group. Nevertheless, responses to questions indicate that there were no significant differences between the two groups in terms of:
 - the grant meeting or being likely to meet its objectives;
 - success at securing further funding
 - numbers of publications produced
 - impact factors of the journals used
- 31. This suggests that the Nis who specifically benefited from the scheme were as successful subsequently as those who would probably have been funded without the NI scheme. Thus the scheme has not supported uncompetitive scientists.

AREAS FOR POSSIBLE IMPROVEMENT:

- 32. While no fundamental overhaul of the scheme appeared necessary or desirable, some aspects of the scheme did warrant further scrutiny based on feedback received.
- 33. One common area for suggested improvements related to the eligibility criteria, which were seen as too restrictive. Not surprisingly, significantly more of the unfunded applicants had felt restricted by these. The most commonly cited issues were the requirement to be the sole applicant and the cap on previous funding. Some also felt that BBSRC should be more proactive in providing guidance on how to write a good application and how the overall process worked¹. This view was enforced by a common complaint of encountering difficulty securing further funding, often in spite of excellent referee comments.

Cap on Previous Funding

34. In relation to the cap of £150k of previous funding the main issue was that where an applicant had received numerous small grants, they all counted towards the limit. It was felt that this ran counter to the spirit of the scheme which should be aimed at those who have not written grant applications before or managed post-docs on grants. Consequently, many felt that those who had received small grants or equipment only grants should be allowed to apply.

¹ The whole BBSRC peer review process is now listed on the website

35. As grants are now awarded on a fEC basis, the value of £150k will also become increasingly untenable. Following discussion of other possible approaches, it was agreed that a more suitable option would be to restrict applications to those who have not had grants on which they have employed research staff, i.e., postdoctoral researchers. Being the PI on a grant which had funding for postdoctoral researcher time was felt to be a more reliable indicator of whether someone should still be counted as a 'new investigator', or rather had already successfully embarked on the next phase of their career. This revised criterion would remove the need to impose an artificial financial limit on applicants, as well as not disadvantaging those who have received equipment grants.

Eligibility of Fellowship Holders

- 36. There is also currently confusion over which fellowships holders are permitted to apply and which are not; the current eligibility criteria contain a list of those which bar an applicant from the NI scheme, and those which do not. Part of the reason for this complexity relates to developments in the provision of fellowships, in particular the introduction of RCUK Academic Fellowships. It was important for Councils to allow RCUK Academic Fellows to be eligible under their various New Investigator schemes, but other fellowships, such as BBSRC David Phillips Fellowships continued to bar an applicant from the scheme.
- 37. The key difference here is that the RCUK fellowships do not come with a research support grant, while, for example the David Phillips Fellowship does. BBSRC's Studentships and Fellowships Panel was asked for its views on whether David Phillips Fellows should also be eligible for the NI scheme, but the clear view was that this was not appropriate. It is proposed, therefore, that the above grant criterion should apply equally to grant or fellowship awards, and that other references to fellowships in the eligibility criteria are removed.
- 38. The removal of references to which fellowships bar an applicant and which do not will help simplify the eligibility requirements and avoid confusion; grant funding will now act as the main criterion in this regard. However, the change also clarifies that the time-limit for eligibility under the scheme starts counting down from the start of a fellowship at the relevant level, such as the RCUK Academic Fellowships. This would now seem appropriate given that RCUK fellows are appointed from the start on openended contracts, and therefore it becomes increasingly artificial to determine the point at which a fellowship ends and standard employment by the research organisation starts.

Equal Opportunities

39. In connection with the three year time limit for eligibility under the scheme, there was also felt to be some potential for indirect discrimination against people who may have taken maternity / paternity leave, or periods of part-time employment. The revision of the scheme therefore gave the opportunity to recast the criteria in terms of the period of full-time equivalent employment (i.e. taking account of career breaks, etc).

CONCLUSIONS AND RECOMMENDATIONS

40. There is a strong consensus that the New Investigator scheme is popular and successful and a major element of BBSRC's strategy to support the careers of recently appointed lecturers (and researchers at Band 5 equivalent, or above). NI grants are seen as an effective way of giving the new researcher the confidence and ability to undertake early stage research. At a departmental level it has been argued that it allows a more independent development of lecturers at an early stage.

- 41. There is therefore no evidence to support a major restructuring of the scheme but a number of potential changes were identified to ensure that this popular scheme continues to flourish. Three specific changes are recommended:
- 42. **Recommendation 1:** Revise the scheme eligibility criteria (see Annex D):
 - A replacement of the cap on previous funding with a requirement that the applicant had not previously been in receipt of grant funding for a postdoctoral researcher (see paragraph 35);
 - Removal of references to fellowships which bar applicants from eligibility under the NI scheme and those which do not (see paragraph 38);
 - Explicit reference to the fact that the time-limit for eligibility is a full-time equivalent period, and can take account of career breaks and part-time working (see paragraph 39).
- 43. **Recommendation 2:** To develop an improved communication programme for the scheme to include higher profile publicity (E.g., targeted leaflets available at research organisations) and dedicated presentations at regional roadshows. (See paragraph 17)
- 44. **Recommendation 3:** A bi-annual report to Committee Chairs monitor the success of the scheme based on pre-defined reporting criteria, including numbers of applications made, success rates, including gender analysis. (See paragraph 28)

Science and Technology Group Human Resources Group BBSRC

ANNEX A

Former eligibility criteria for the BBSRC New Investigator scheme, extracted from the BBSRC Funding Guide.

To be eligible to apply under the scheme, applicants must:

- Be within three years of the start date of their first appointment at the time of the
 closing date for submission to the grant round in which the application will be
 assessed. Applicants must also be at lecturer level or above, or if applying from a
 BBSRC, MRC or NERC Institute, be at the BBSRC Band 5 level equivalent or
 above. Applicants must hold a contract which guarantees that their tenure will
 extend beyond the duration of the proposed project
- Not have received grant funding of more than £150k. This total will include
 amounts in any other grant funding requests where the results are not known at
 the time of submission but which are subsequently successful. Details of such
 requests must therefore be given in the application and their outcome notified to
 BBSRC immediately they become known.
- Be the sole applicant, although, to encourage interdisciplinarity, a co-applicant
 who is from a discipline other than biological sciences may be included in the
 application. If, however, the New Investigator is from a non-biological science, a
 co-applicant from the biological sciences may be included. Non-biological
 sciences include physics, chemistry, mathematics, IT, engineering etc.

Only one application to each grant round is permitted, and New Investigator applicants may not submit another type of grant application as a principal applicant to the same BBSRC grants round. Neither current holders (Principal Investigators) of research grants, nor those researchers who have previously received grant funding from any source in excess of £150K are eligible.

New investigator applicants who have been co-applicants, but not principal applicants on successful grant applications are eligible for the scheme.

With the exception of the holders of RCUK Academic Fellowships, holders of research fellowships such as BBSRC and other research council Fellows, Royal Society Fellows, Lister Fellows etc., are **not eligible** to apply to this scheme. RCUK Academic Fellowship holders must ensure that their situation complies that given in paragraph 3.6 before applying. However, all research fellows are eligible to apply for BBSRC standard responsive research grants providing they are able to satisfy the usual eligibility requirements for these.

EVALUATION OF BBSRC'S NEW INVESTIGATOR SCHEME SURVEY RESULTS

SAMPLE STATISTICS

305 questionnaires were sent out to successful and unsuccessful applicants to BBSRC's New Investigator scheme; the 305 were identified from a total of 553 applicants since the scheme started. 158 responses were received. The following table sets out the breakdown between:

- successful and unsuccessful applicants
- among the successful applicants, those which received a "boost" and those which ck=leared the funding cut off unassisted
- decisions made up to and since Autumn 2004

	Category	Number that exist	Number sent	Number received	Received as % of existing
Successful	A: NI - scored above cutoff	111	60	39	35%
up to Aut 04	B: NI - scored below cutoff	65	36	26	40%
Unsuccessful	C: Unsuccessful - scored <7	260	115	40	15%
up to Aut 04	D: Unsuccessful - scored >7	27	14	10	37%
Recent	E: New Investigators	34	31	24	71%
Spr & Aut 05	F: Unsuccessful applicants	56	49	19	34%
Total		553	305	158	29%
Total – funded (A,B,E)		210	127	89	42%
Total - not funded	d (C,D,F)	343	178	69	20%

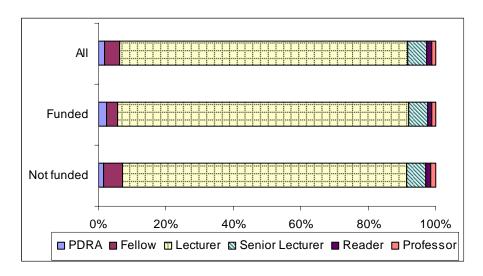
The responses were fairly evenly spread across the Committees. There was good representation from each of the five years, but a higher response rate from those applying/awarded in 04 and 05.

The results are presented in the order of the questions in the questionnaire.

Note that some of the differences may be artefacts of the relatively small sample size in some of the categories. Simple statistical tests have been carried out where relevant, and many of the apparent differences are not statistically significant. Differences are taken to be significant when the 'p-value' is less than 0.05.

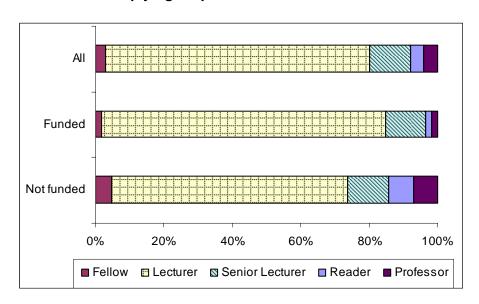
GENERAL INFORMATION

Job title when applying to NI scheme



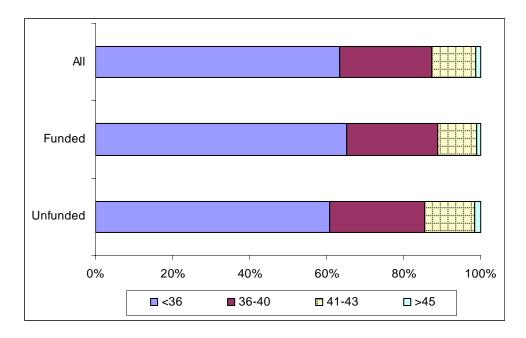
- Majority were lecturers
- Funded and unfunded have a very similar distribution
- Bs appear slightly more junior than As (A: 6% were below lecturer (PDRAs/Fellows); B: 12%), but the difference is not significant (Chi-squared, p = 0.32).

Job title when replying to questionnaire



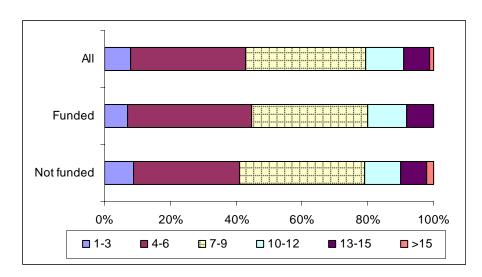
- Majority still lecturers.
- More unfunded appear to have reached senior positions than funded, but difference is not significant (Chi-squared, p = 0.36)
- As appear more senior than Bs (20% of As are more senior than lecturer, for Bs this is 8%), but difference is not significant (Chi-squared, p = 0.22); Bs were generally more recent than As, so likely that fewer Bs have been promoted yet (69% of Bs were awarded in 03 and 04 compared with 52% of As).

Age at first application



- Majority of funded and unfunded were under 36 when applying
- As slightly younger (A: 72% were <36; B: 62% were <36), but difference is not significant (Chi-squared, p = 0.39).

Years since awarded PhD



- Majority between 4 and 9 years since completing PhD
- Funded appear to have finished their PhDs earlier than not funded, but difference is not significant (Chi-squared, p = 0.66).
- More Bs had recently finished PhD (A: 43% <6 years; B: 52%), but the difference is not significant (Chi-squared, p = 0.24).

At the time of applying, had you just returned after a break from research?

More unfunded had just returned from career break (funded: 2%; unfunded: 10%); the numbers are two low to conduct a valid statistical test.

YOUR APPLICATION TO THE NI SCHEME

What prompted you to apply to BBSRC's NI scheme? (Please tick one of more and comment if you wish)

No major difference between funded/unfunded, so results pooled:

I read about it on the BBSRC website	50%
Head of Dept/colleagues suggested I should apply	32%
It is the normal procedure for new lecturers in my department	13%
It was suggested to me by BBSRC staff	2%
Other	3%

Had the scheme not existed, what would you have done? (Please tick one of more and comment if you wish)

Funded only

Applied to BBSRC for grant funding anyway	68%
Applied to another funding body	30%
(most common: Wellcome – 9, MRC – 6)	
Waited, and applied for grant funding later in my career	2%
Changed career path	0
Other	0

To what extent was your application restricted by the scheme's eligibility criteria?

More unfunded had been restricted (24% of unfunded ticked 1 or 2; 8% of funded). This difference is highly significant (Chi-squared, p<0.01).

	4	3	2	1
	(not at all)			(significantly)
All	60%	25%	9%	6%
Funded	72%	20%	6%	2%
Unfunded	45%	30%	14%	10%

Some added comments as to how their application had been restricted:

	All	Funded	Unfunded
Base: all respondents	158	89	69
Requirement to be sole applicant	8%	3%	13%
Budget cap	6%	9%	3%
Requirement to be on a permanent contract	4%	2%	6%
Lack of clarity of rules	2%	3%	0%
The restriction on no previous funding, making it difficult to	1%	0%	3%
generate preliminary data on which to base the proposal			
Restriction on time post appointment in which you can apply	1%	0%	1%

Many more of the 'unfunded' were restricted by the requirement to be the sole applicant than the 'funded', which raises the question of whether we are missing interdisciplinary applications. Alternatively, these respondents may be less confident/able researchers who would have felt more comfortable having a co-applicant?

To what extent is the scheme targeted at the right people? Do you have any comments on the eligibility criteria?

This was an open-ended question, to which response rates are always lower.

The most common response was that the criteria are right. However, many commented that they are too restrictive, with some differences emerging between funded and unfunded:

Comment (main comments in bold , extra comments/ explanation added by some shown below in italics)	All	Funded	Unfunded
Base (number of respondents)	158	89	69
Targeted right/criteria fine	37%	42%	32%
Good that there's no age limit	2%	2%	1%
Too restrictive	28%	18%	42%
Remove restriction on length in appointment (e.g. extend scheme to any researcher without significant grant funding), or increase the time limit to 5 years	9%	0	20%
[This requirement is good]	2%	3%	0
Relax budget cap	5%	7%	3%
[This requirement is good]	1%	0%	1%
Relax requirement for sole applicant	4%	1%	7%
[This requirement is good]	2%	2%	1%
Allow senior postdocs (e.g. >5yrs experience) to apply	3%	4%	0
Relax restriction on previous grant funding, especially for equipment grants	3%	1%	4%
Fellows should be eligible	2%	2%	1%
[Fellows shouldn't be eligible]	1%	0	1%
Allow researchers on fixed term contracts to apply	2%	2%	1%
Open to researchers coming from overseas	1%	0	3%
Open to clinicians wanting to move into research	1%	1%	1%
Comment reflects a misconception of the scheme and/or rules	13%	9%	19%
There is an age limit	6%	8%	3%
Funding is ringfenced	4%	1%	9%
The number of NI applications that a researcher can submit is limited	3%	0%	7%

YOUR NI GRANT (Funded only)

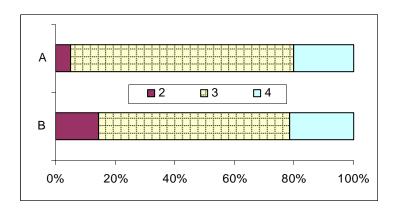
Please give details of any additional financial or in-kind support for the work funded by your NI grant (e.g. from your department)

57% reported having received additional support, average £19k. 54% had received support from university/department (mostly start-up funds) 6% from other sources (Royal Society, ISIS, SRIF)

If your grant is finished or nearing completion, how successful was the work supported by this grant in meeting its objectives?

4: very successful; 1: not successful (nobody ticked 1).

The majority felt it was successful, there was no significant difference between A and B (chi-squared, p = 0.62).



If you ticked 1 or 2, were the reasons for this related to: (few responses to this)

Experimental/methodological/technical issues	2
Lack of resources, e.g. funding, equipment	0
Staff e.g. difficulties in recruiting, managing or	1
retaining staff	
Changes to the objectives of the research due to	1
new information or after initial findings	
Unrealistic project objectives	1
Other (please specify)	0

To what extent has this grant facilitated the progress of your career? (Please tick one or more and comment if you wish)

A clear yes, with no major difference between A and B

4	3	2	1
(significantly)			(not at all)
74%	25%	2%	0

More specifically, how was the NI grant beneficial to you? (Please tick one or more and comment if you wish)

Helped me to establish my lab	97%
Motivated me to stay in research	46%
Helped me to win further funding	26%
Helped me to secure a promotion/new job	25%
New comment added: Kept me in my job/enabled me to come	14%
off probation	
Other	12%

Have you applied for further funding since being awarded your NI grant? Yes/No (Categories A - D)

The funding data needs to be interpreted with some caution, as respondents varied in how much information they gave. Some gave long lists of all the successful and unsuccessful applications they had made, others only gave the most recent, others (it appeared, unless they were very lucky) only told us about their successful applications.

	All	Funded	Unfunded	Α	В
Applied for further funding	90%	92%	88%	92%	92%
Secured further funding	71%	67%	75%	74%	58%

The difference between funded and unfunded for securing funding appears large, but is not significant (Chi-squared, p = 0.39). Also, it should be borne in mind that 'funded' obviously had NI funding so it was less urgent for them to apply for more, whereas 'unfunded' were still trying hard to secure their first grant.

Comparing A with B (that is, those whose applications were "boosted" [B] with those whose applications would have been funded regardless [A]), it appears that As had more success in securing funding; however, the difference is not significant (Chi-squared, p = 0.22). Also should bear in mind that B grants were on average more recent than A, i.e. Bs had had less time (and inclination) to secure further funding yet (69% of B grants were awarded in 03 and 04 compared with 52% of A grants).

Other funding data, comparing As and Bs

	All	Funded	Unfunded	Α	В
Median no. applied	3	3	3	3	3
Median no. funded	1	1	1	1	1
Median no. not	1	1	1	1	1
funded					
Median no. where	0	0	0	0	0
decision is awaited					
Av % funded	49%	48%	50%	47%	51%
Applied - mean no.	2.6	2.5	2.7	2.6	2.4
where PI					
Funded – mean no.	1.3	1.1	1.6	1.2	0.9
where PI					
Mean size of grant	321	353	280	320	427
(£k)					

Median used because data are left skewed

There is no significant difference between funded and unfunded categories, except that the further grants secured by the 'unfunded' appear smaller than those secured by the funded. Bs appear to have secured larger grants than As.

Success rates in securing further BBSRC funding

Unsurprisingly, NIs did significantly better at securing further BBSRC grants than unfunded applicants: (funded: 38% of those applying secured one or more BBSRC grants; unfunded: 29%). The difference is highly significant (Chi-squared, p<0.01).

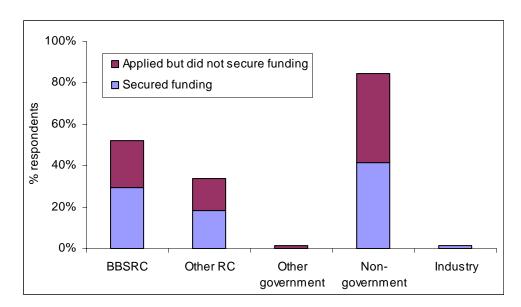
This is much higher than the success rate for all responsive mode applications (although bear in mind this analysis was done per researcher rather than per application. This was considered to be the more accurate analysis given the differences in information given by respondents).

The success rate was identical for A and B (38%).

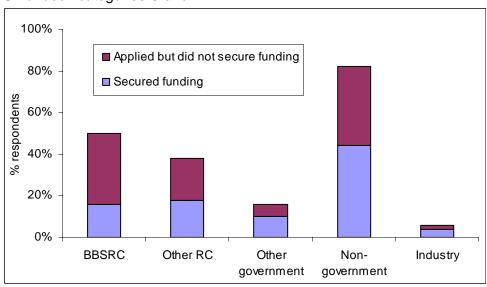
Types of funding body

Graphs show distribution between different types of funding body in terms of people applying

'Funded': categories A and B



'Unfunded': categories C and D

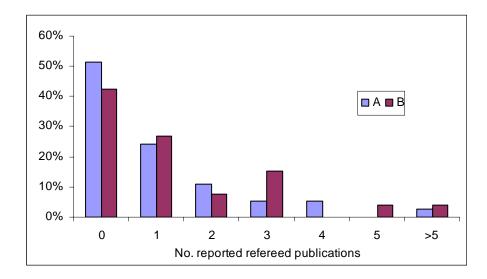


Please comment on any difficulties/issues related to securing funding after being awarded an NI grant

Competition - being rejected despite excellent referees	14%
reports	
The need for preliminary data to support the application	5%
Lack of/insufficient feedback	3%
Derogatory references	3%
Rules on position needing to outlast life of grant	2%

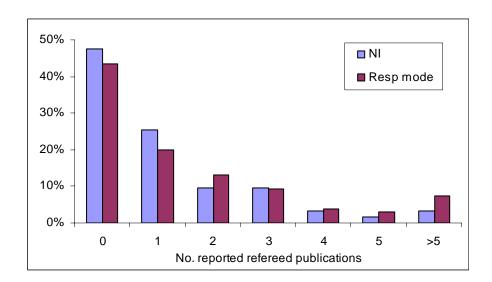
Please provide details of all refereed publications arising as a direct result if this grant

There was no major difference between A and B in terms of number of publications, but more As did not report any publications, even though B grants were generally more recent.

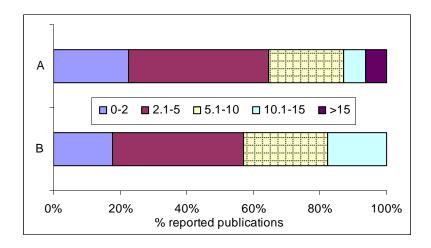


The median no. publications for A is 0, B is 1 (median used because the data are so left skewed)

The distribution of numbers of publications is very similar to that reported by current grantholders in the three responsive mode surveys undertaken to date (Animal Sciences; Biochemistry and Cell Biology; Genes and Developmental Biology)

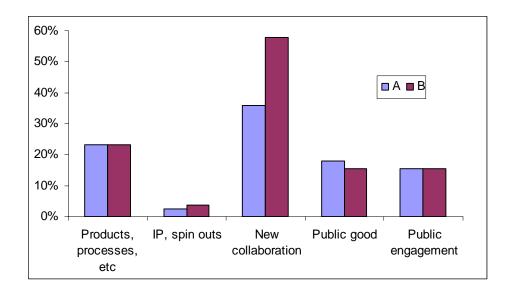


Impact factors (to be interpreted with caution): B appears to be slightly lower, but the difference is not significant (Chi-squared, p = 0.46).

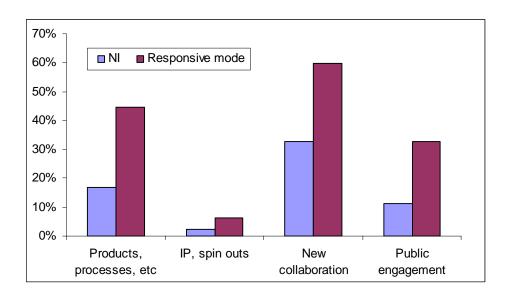


Please indicate any other major outputs that have arisen (or are expected) as a direct result of this grant

New contacts/collaborations were the most commonly cited; no significant differences between A and B



Partial comparison with responsive mode: (based on results from AS, BCB and GDB current grants surveys) suggests that levels of outputs reported by NIs are considerably lower than for responsive mode, which might be expected given that many of the responsive mode grants would have been to established research groups with previous work, other grants, etc. The distribution between the different outputs is broadly similar.



THE NI SCHEME

Do you think BBSRC should have a NI scheme? Yes/No

All replied yes except 1 unfunded respondent.

BBSRC's NI scheme aims "to assist newly employed university lecturers, and researchers at BBSRC-sponsored, and certain other research institutes in their first open-ended appointments to obtain their first research grant". To what extent is the scheme currently meeting this aim?

Perhaps unsurprisingly, unfunded were more negative. However, as many respondents commented that they could only speak from personal experience, these data are perhaps of limited use.

	4	3	2	1
	(very well)			(not at all well)
All	49%	25%	13%	14%
Funded	78%	16%	5%	1%
Unfunded	10%	36%	23%	31%

What are the strengths and weaknesses of the scheme? Do you have any thoughts on how it could be improved?

Do you have any comments on BBSRC's grant administration/assessment procedures for NI grants?

These were open-ended questions, to which response rates are always lower.

Comments made by three or more respondents are summarised below.

General comments on the scheme

Comment	All	Funded	Unfunded
Base (number of respondents)	158	89	69
The scheme works well, is fit for purpose	20%	24%	16%
The scheme is important as it enables new ideas to enter the system	2%	1%	3%
Plus many comments from NIs that the grant was vital for establishing their career, measured elsewhere			
	70/	00/	400/
Give applicants more guidance on how to write a good application and how the process works e.g. hold a workshop	7%	2%	13%
Would be beneficial to the NIs if PhD studentships could be awarded with the grant	4%	8%	0
It is still difficult to generate sufficient data: provide pilot/pump-priming funding	4%	3%	4%
Give NIs guidance on how to run a project and a lab	3%	3%	1%

Plus several comments/suggestions from one respondent only:

- The Committee awarded funding for a senior RA on the grant, this worked well;
- Each Committee should have an NI representative representing their interests and ensuring consistency of standards and procedures;
- NIs could be assigned a mentor; and
- NIs could be required to submit an annual report, on which they receive feedback.

Comments on the assessment process

Comments	All	Funded	Unfunded
Base (number of respondents)	158	89	69
Strengths		- 1	
Applications are judged on potential rather than on track record and preliminary data, this is vital. Many of the respondents said potential should be emphasised more than it currently is	27%	22%	32%
It is very valuable to be able to respond to referees' comments	9%	8%	10%
Feedback from referees and the Committee was very helpful/is very important	8%	9%	6%
Weaknesses/suggestions		•	
Concerns over the transparency of the process, and comments that there is little information on the assessment process, success rates, etc.	18%	11%	28%
[The process was fair and transparent]	4%	3%	4%
Give better feedback on the application and on funding decisions	13%	4%	23%
Applicants are not given sufficient 'leg-up' - the success rate for NIs should be higher	9%	2%	17%
NI applications should be judged separately from responsive mode	9%	4%	14%
[It is a strength that NIs are assessed within responsive mode]	3%	3%	3%
There should be a separate budget for NI grants	8%	4%	13%
It appears to be difficult for applicants in low-rated	2%	0	4%

Comments	All	Funded	Unfunded
departments to secure a grant			
Comments indicating misconception of the scheme			
Referees must be told that the applicant is an NI; the referee did not seem to realise (or take into account) that I was an NI	6%	3%	9%

Comments on the administration of the scheme

Comments	All	Funded	Unfunded
Base (no. respondents)	158	89	69
Excellent/good	11%	16%	6%
Fine/OK/no problems	4%	3%	4%
Staff were helpful and supportive	6%	10%	0
The process was too slow	6%	9%	3%
Advertise the scheme more widely	2%	3%	0

Do you have any other comments relevant to this evaluation?

Nothing major; a few comments on how the survey could have been improved.

Revised eligibility requirements for the New Investigator scheme

- 1. The New Investigator scheme is a mechanism designed primarily to assist newly employed university lecturers, fellows and researchers in BBSRC institutes at band 5 level or above (and their equivalents in MRC and NERC institutes) to secure their first major element of research support funding.
- 2. To be considered under the scheme applicants must have no more than three years full-time employment at lecturer, Band 5 or equivalent level (or the full-time equivalent taking account of career breaks, part-time employment, etc), including fellowships at this level.
- 3. Apart from funding received for equipment, applicants must not have either previously received, or currently be in receipt of, competitively obtained research or support grants from any source as a Principal Investigator (including that associated with a fellowship) that includes the provision of funding for research staff costs,.
- 4. Applicants mush have appointments which extend beyond the duration of their proposed project.
- 5. Applicants must satisfy both the above scheme specific eligibility requirements as well as the normal eligibility requirements for BBSRC responsive mode grants <u>see paragraphs</u> 3.2 to 3.5.
- 6. Applicants may only submit one New Investigator application to each BBSRC grants round, and they may not submit another type of grant application as a principal applicant to the same grants round. Researchers who have been co-applicants on successful grant applications are eligible for the scheme
- 7. Although applicants are normally expected to be the sole applicants, in order to encourage projects of an interdisciplinary nature, a co-applicant who is from a discipline other than biological sciences, may be included in the application. Other permutations may be acceptable, but only with the prior agreement of BBSRC
- 8. Applications will be judged against the same criteria as other responsive mode proposals; however, research potential rather than track record will be taken into account. As part of their case for support applicants should describe the support their institution will be providing to the start up of their laboratory. This should include the financial contribution to be provided.