

Analysis of RAE submissions, 2001

I. Introduction

1. Questions and hypotheses

The stated purpose of the Research Assessment Exercise, as stipulated in the *Guidance for Submissions* (RAE 1999b) is “to produce ratings of research quality which will be used by the higher education funding bodies in determining the main grant for research to the institutions they fund”, and to “inform policy development”. The definition of research that is used is quite broad and unspecific: “original investigation undertaken in order to gain knowledge and understanding” (RAE 1999b). The RAE is thus defined by its use and not by its quality or impact. The premises of such a definition might seem unacceptable to people and institutions involved, especially when set against the tradition of academic criticism that runs through every field of research. Understandably, right from its beginnings, the exercise has been the centre of heated debates.

Every RAE comes with accompanying official literature and it is followed by a trail of reactions, comments and research on its conduct and impact, recommendations for future exercises, consultations etc. It also receives extensive media coverage and has all the characteristics of political centrality, financial weight, personal and institutional risk and sensationality to stay well balanced between the status of an utterly bureaucratic procedure, in the context of an ‘audit society’, and that of a mere institutionalization of (everlasting) academic competitiveness.

There is no wonder then that each RAE has stimulated analysis of the database that supports it. Bassegy and Constable (1997) looked at the distribution of the publications included in the submissions to RAE 1996 across a diversity of ‘fields on enquiry’ and found that fields of enquiry are differently connected with the RAE ratings of the institutions pursuing them. For instance, school/teacher/child issues, governance, disciplines in educational settings, and methodology featured more prominently among the concerns of the higher rated institutions, while curriculum issues, teacher education, and INSET were more likely to be pursued in the lower graded departments.

An extended, but little quoted report that covers RAE 1996 is Kerr et al (1998). An important aim of the report is to ‘classify and map the research undertaken by education departments in England ... and identify the concentrations or gaps in the research effort relating to particular themes’. Research outputs included in the RAE submissions were organized into six themes (with three eventually emerging as predominant: ‘education’, ‘education policy’, and ‘education management’) and crosscut by several background variables (such as population characteristics, National Curriculum subjects, school type, ‘old’ vs. ‘new’ universities etc.). The report found that the ‘old’ universities were awarded higher RAE ratings, and that the level of external funding correlates with the RAE grading. Also, the concentration of research on the three overarching themes seemed to be similar at every level of the scale, with the exception of lower emphasis of the two 5* institutions of the theme of professional development (p. 23).

If the previous databases were confidential and access to them was a difficult enterprise (for instance, the analysis of RAE 1996 mentioned above was actually commissioned by HEFCE, but even so, it had to overcome a series of obstacles related to the confidentiality of the data), most submissions and documentation for RAE 2001 are available on-line at www.hero.ac.uk. Only a few parts of the submissions were still deemed confidential and thus removed from the publicly available documentation. In consequence, an analysis of the RAE 2001 dataset poses far less access problems than its antecedents.

However, there are some other difficulties that make such an analysis less manageable. Most of them have to do with the policy and funding decisions associated with RAE 2001, which increased the worries about potentially depressing consequences of the latest RAE on an important proportion of educational research institutions (in terms of funding/resources, but also in terms of the relation teaching/research, recruitment of staff and students, staff mobility, continuity of research strategies, etc.).

It is not the purpose of this report to address these issues or to summarize research on the conduct and impact of RAE. While bearing in mind the underlying complexity of the educational research scene, this report only attempts a ‘snapshot’ of it in terms of potential differences in staffing, income and thematic interests between different institutions. The relation between these characteristics and the rating of institutions at the RAE is worth exploring, and the comments below are only a preliminary exploration.

The evidence collected through email, direct communication, and exploration of websites, suggested a set of questions and working hypotheses that guided the selection of the data analysed here:

- a. How do the patterns of staff selection for entering RAE vary across different groups of institutions? And following from this, how does the teacher training/research ratio vary between differently rated institutions? Is there any connection between teacher training and the patterns in the distribution of funding?
- b. How does the distribution of income from different sources vary across different (in terms of rating) groups of institutions? What does this suggest about the potential of departments rated lower than 4 to attract alternative funding? What categories of funding seem to have a stronger connection with the 1996 rating, suggesting a possible impact of RAE?
- c. How are research interests dispersed throughout the system? Does the distribution of research interests correlate with the distribution of rating? If so, what would be the fields most endangered by the cutting of funds for lower-rated institutions? Which leads to, how can research expertise, in terms of uniqueness, quality, and amount of research carried on in particular fields (and all these terms need analysis and definition), be mapped across the system?

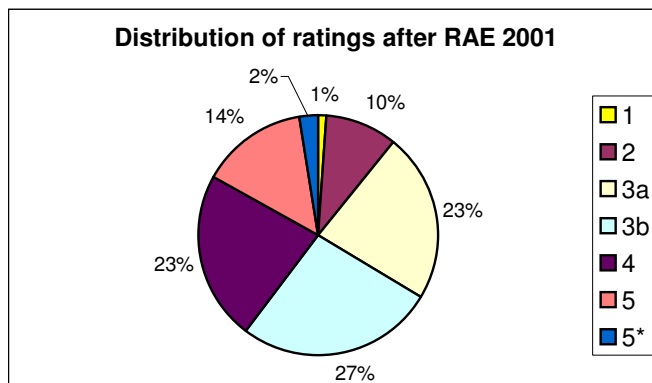
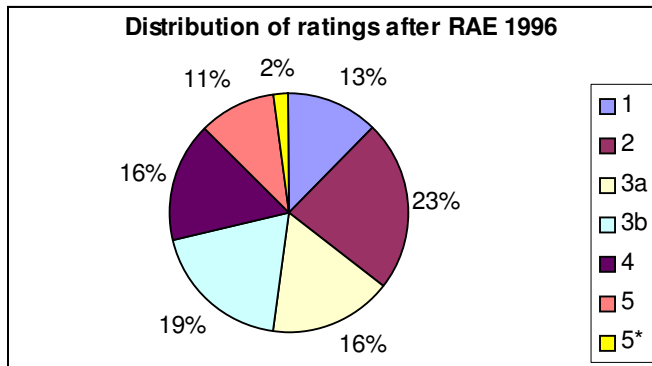
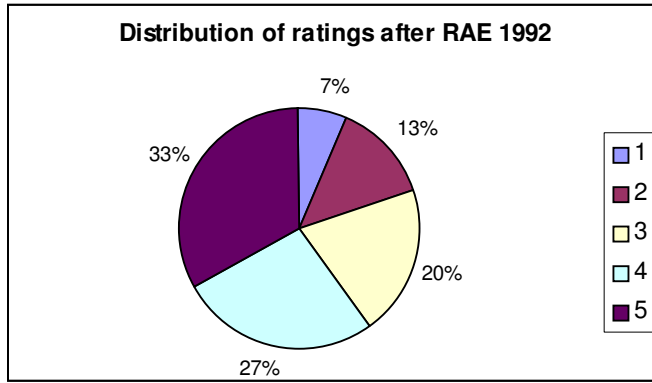
2. Approach

It was not feasible to address all these questions, and not even to attempt to explore comprehensively any one of them. I decided therefore to do a quick exploration of each of these areas and to experiment with data and possible approaches to them, so that, apart from identifying immediate 'evidence', some broader aims can be pursued, ie, raising further questions that could be of relevance for an understanding of the issues at hand. Three sets of preliminary analyses were performed, involving putting together data from different parts of the RAE submissions and creating SPSS files to contain them. However, no regressions or tests of statistical significance were carried on, again due to the specific constraints of this exploratory project, thus any reading of the (preliminary) findings below needs to take into account these limitations. The three areas were:

- a) The proportion of existent academic staff that was entered for RAE by each group (based on rating) of institutions. Data used were pulled from form RA0;
- b) The distribution of sources of income across the different ratings (using data from Form RA4)
- c) The distribution of research interests as condensed in the list of research groups included in each submission (data from Form RA5). For reasons of time form RA2 was not analysed in depth, even though it might have provided a much more comprehensive and reliable picture. I have considered the use of a sample from the RA2 submissions (there are about 9000 individual entries to sample from), but I did not think that such an approach would have been a considerable gain given the purpose of this report. Section IV gives an idea of the usefulness of an analysis based on RA2.

3. Background findings

If in 1996 (Kerr et al., 1998, p. 23) some 51.1% of the total research output was submitted by institutions rated 4 and above (with a dominant 25.8% coming from institutions rated 4 only), in 2001 the proportion increased to 66.6% from 4-5* (including 37.5% from 4s); but this needs to be seen in conjunction with the higher number of grades 4 awarded in 2001 as compared to 1996. The charts below show the proportion of institutions being awarded each of the ratings from the total of institutions entered for RAE (86 in 1992, 103 in 1996, and 83 in 2001), from 1992 to 2001:



4. Types of findings

Three types of findings are outlined in this report:

- Patterns of staff selection for RAE;
- Sources of income;
- Research interests and fields of enquiry, inasmuch as they are expressed by the choice of research groups to be included in submissions.

All three were crosscut with the ratings the submitting institutions have received (see Appendix 2). It might be interesting, for further investigation, to crosscut them with the ratings from RAE 1996, in an attempt to assess the impact of the exercise.

5. Follow-up

Apart from the issues raised in the set of questions above, two other directions were identified as needing further exploration:

- Mapping research expertise in the UK (and this report is an exploration of potential ways of doing this, the analysis of RAE submissions being only one of them)
- Research strategy and evidence of esteem: research expertise vs. rhetorical efficiency.

Section IV below comments on these directions for research and includes examples of potential findings.

II. Findings

1. Staff (Form RA0)

Definitions (excerpts from RAE guidelines – RAE, 1999a):

- *Category A staff* are academic staff who were in post at the submitting institution on the census date (i.e. 31 March 2001) who do not fall into the definition of category A* (category A* staff being academic staff who transferred between eligible UK institutions in the period between 1 April 2000 and 30 March 2001 inclusive).
- *Full-time equivalent (FTE)* refers to the extent of the contracted duties of a member of staff at the census date, as compared to those of a typical full-time member of staff in the same category (e.g. academic). It does not take into account the length of time within the year for which he or she was employed nor the relative proportion of total contracted time spent on research. FTE values are positive numbers expressed to two decimal places (e.g. 0.67), with a maximum of 1.00 FTE being assigned per member of staff.
- *Selected staff* are ‘those individuals in or associated with a department who were actively engaged in research’, in the wider sense, at the census date (31 March 2001) or at some point from 1 January 1996 who were chosen to be submitted by institutions to the 2001 RAE.

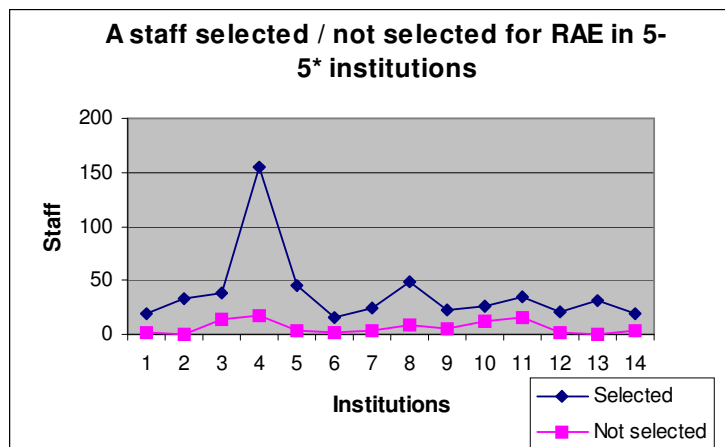
Approach

Only selected research active staff A were the focus of my analysis. The figures in the tables are based on the full-time equivalent figures submitted by institutions.

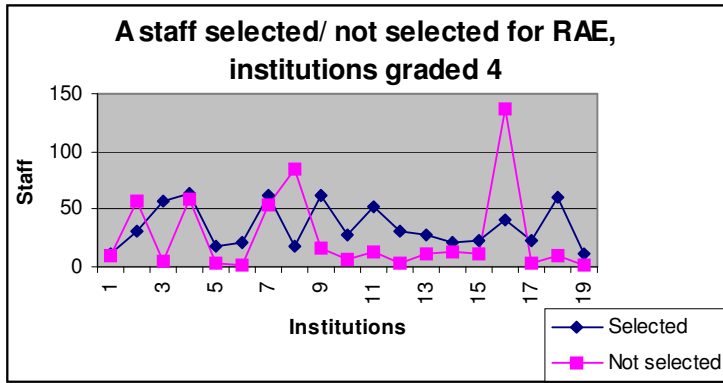
Findings

Variation of the proportion of staff selected within each group of institutions (each individual institution is represented on the X axis of the charts below)

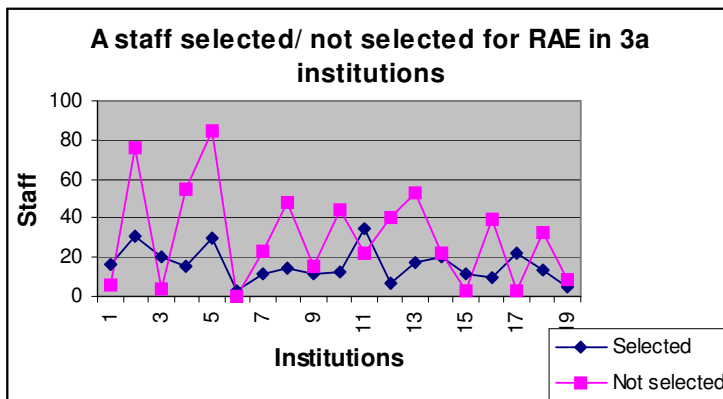
The proportion of A staff selected for RAE neatly overcomes the proportion of staff not selected in all 5 and 5* institutions:



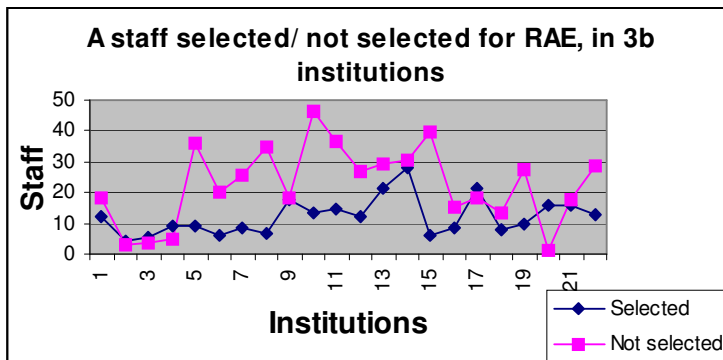
The pattern becomes less clear in the case of institutions rated 4:



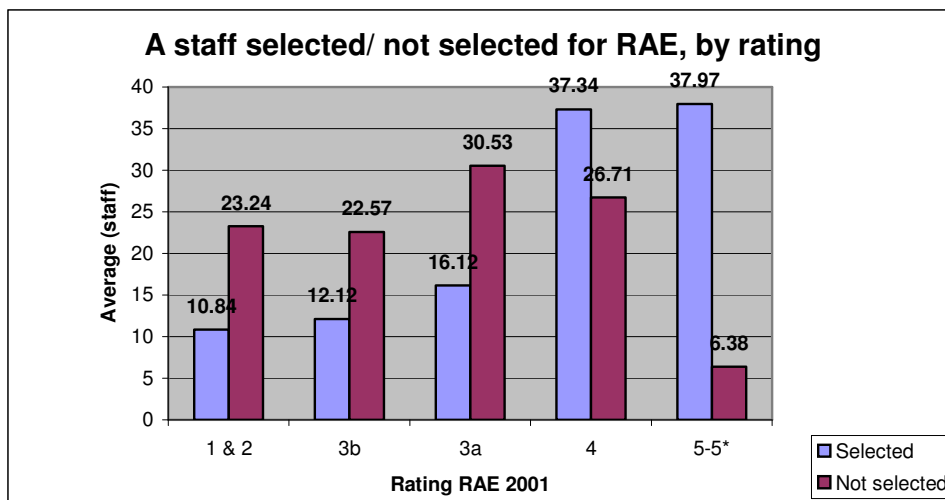
The proportion of staff not selected becomes even higher as we move to the 3a sector, where only about one third of institutions have more A staff selected than not selected:



Finally, in 3b departments the initial pattern is almost reversed, with less than one fifth of institutions having more A staff selected than not selected:



The chart below summarises these trends, by using a calculated average for every category of institutions:



It could be useful to plot these figures against data about the amount of teacher training that is going on in every category of institutions and to see to what extent the different patterns are due to the differential distribution of the workload within different institutions, which might entail specific research choices and hypothetically a preference for less mainstream research and practitioner-focused research, or are they due to differences in the overall research capacity.

2. Research income (Form RA4)

Definitions (excerpts from RAE guidelines – RAE, 1999a):

- *Research income:* The external income received from the different sources is listed for between 1 January 1996 and 31 December 2000. This was returned by financial year, from 1 August to 31 July. It also includes two part year returns (1 January to 31 July 1996 and 1 August to 31 December 2000), where in some cases institutions have pro-rated external income received for the whole of the financial year. The actual research income from external grants or contracts received in each financial year is sought rather than the initial value of the grants or contracts. For this purpose the HESA definition of research income will apply: that is, all income in respect of externally sponsored research carried out by the institution (or its subsidiary organisation) and for which directly related expenditure has been incurred (including recovery of indirect costs). Research studentships are not included.
- *Sources of income:*
 - a. *OST Research councils et al* - includes all research grant and contract income from research councils covered by the Office of Science and Technology and the British Academy.
 - b. *AHRB* - includes all research grant and contract income from the Arts and Humanities Research Board.
 - c. *JIF* - the proportion of grants awarded from the Joint Infrastructure Fund (JIF) provided from OST or Wellcome Trust funds may be included. JIF grants provided from HEFCE

funds were not included, as this would have produced an inconsistent indicator across the UK since SHEFC and HEFCW do not contribute to the JIF.

- d. *JREI* - grants awarded under the Joint Research Equipment Initiative. These were returned broken down into the portions provided by Research Councils, industrial sources and funding councils.
- e. *UK-based charities* - research grants and contract income from all charitable foundations, charitable trusts etc., based in the UK and registered with the Charities Commission, from exempt charities (except those specifically included under other headings) or from those recognised as charities by the Inland Revenue in Scotland.
- f. *UK central government bodies, local, health and hospital authorities* - includes all research grants and research contract income from UK central government bodies, UK local authorities and UK health and hospital authorities, except research councils and UK public corporations. This therefore includes government departments, Northern Ireland departments and all organisations financed from central government funds. Income from non-departmental public bodies (NDPBs) except the four higher education funding bodies was returned under this heading. It excludes NHS funding in respect of clinical or non-clinical teaching.
- g. *UK industry, commerce and public corporations* - includes all research grant and contract income from industrial and commercial companies operating in the UK. UK public corporations (defined as publicly owned trading bodies, usually statutory corporations, with a substantial degree of financial independence) include the nationalised industries and bodies such as the Ordnance Survey and the Housing Corporation.
- h. *EU government bodies* - includes all research grant and contract income from all government bodies operating in the European Union (EU), including the EC but excluding the UK. SOCRATES, ERASMUS, TEMPUS, ESF and similar grants are excluded from this return. Where an institution is acting as a co-ordinator for an EC award it should only include the funds that will be directly spent in that institution as one of the contractors for the award. In respect of countries joining the EU during the assessment period income was only to be included from the date of enrolment onwards (and returned under "other overseas" before that date).
- i. *EU other* - includes all research grants and contract income from all non-government bodies operating in the EU, excluding the UK. The same provision regarding the countries joining the EU during the assessment period applies.
- j. *Other overseas* - includes all research grant and contract income from bodies operating outside the EU.
- k. *Other sources* - includes all research grants and contract income not covered by the heads described above (with the source specified).

Approach

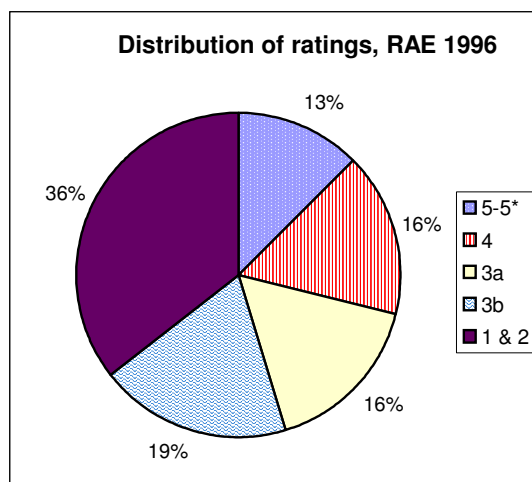
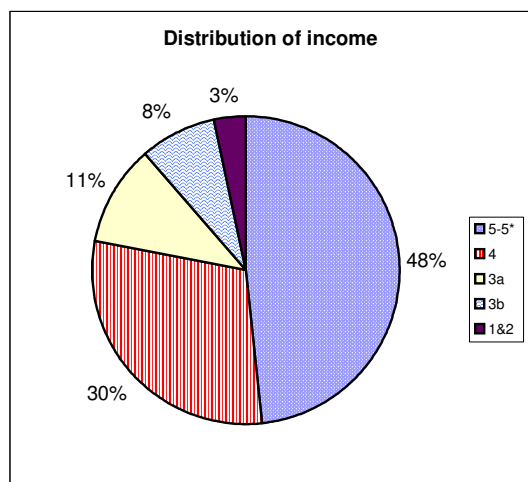
The amounts of funding from all submissions over the entire period under assessment were added together and then disaggregated by source of income and rating.

Findings

Distribution of income by rating (numbers and percentages)

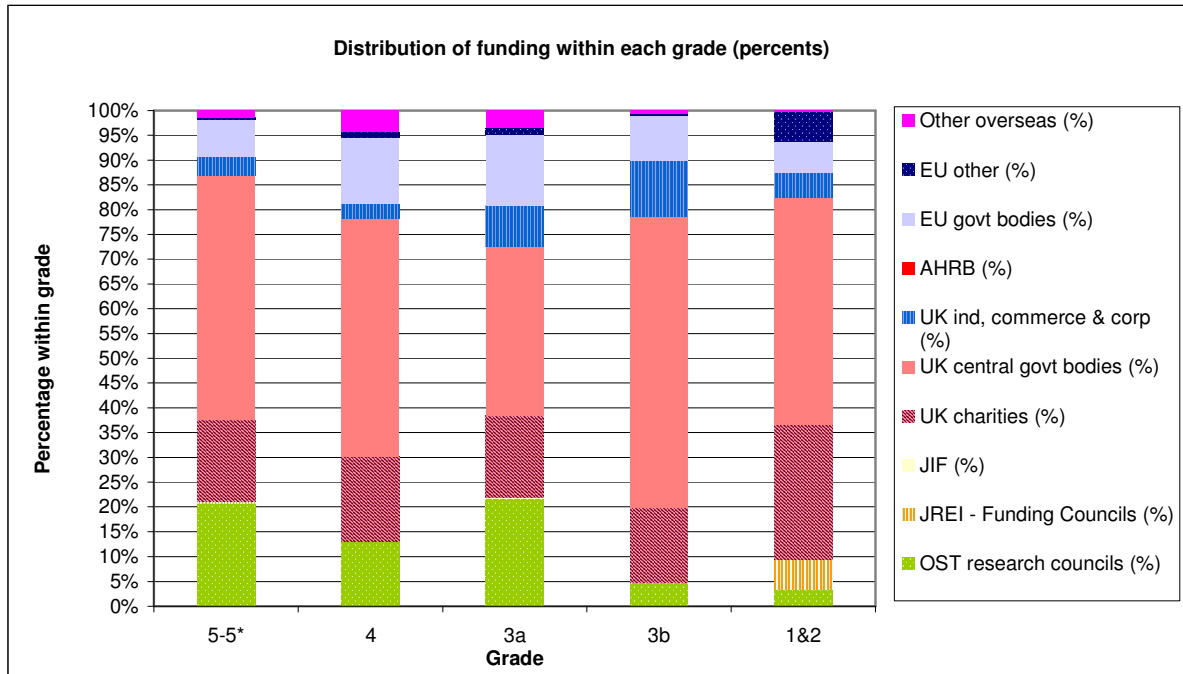
	5-5*	4	3a	3b	1&2
OST research councils	14039260	5440538	3134643	555029	164850
OST research councils (%)	20.10367	12.75733	20.51281	4.752207	3.430541
AHRB	28863	0	0	4830	
AHRB (%)	0.041331	0	0	0.041355	0
JIF			44849		
JIF (%)	0	0	0.293488	0	0
JREI - Funding Councils	229669				290500
JREI - Funding Councils (%)	0.328877	0	0	0	6.045326
UK charities	11110315	7218428	2380008	1709042	1298030
UK charities (%)	15.90953	16.92624	15.57455	14.63297	27.0121
UK central govt bodies	33254072	20191178	4945044	6722751	2200287
UK central govt bodies (%)	47.61852	47.3456	32.35991	57.56079	45.78813
UK ind, commerce & corp	2545473	1160962	1196193	1274509	237407
UK ind, commerce & corp (%)	3.645017	2.7223	7.827776	10.91246	4.940457
EU govt bodies	5151633	5621124	2085821	1042255	299168
EU govt bodies (%)	7.376936	13.18078	13.64942	8.923879	6.225708
EU other	200564	451107	184280	42006	284000
EU other (%)	0.2872	1.057785	1.205911	0.359659	5.910061
Other overseas	974649	1840164	513486	74083	16763
Other overseas (%)	1.395659	4.314937	3.360205	0.634305	0.348839
Other	2299821	722867	797066	254889	14360
Other (%)	3.293253	1.695026	5.215926	2.182382	0.298833
TOTAL	69834319	42646368	15281390	11679394	4805365

The distribution of income (as percent of total across the assessment period and in all institutions) favours, as expected, the departments with higher ratings. However, when compared to the proportion of institutions with different rating during the period under assessment (i.e., assigned at RAE 1996), the distribution appears to be very skewed. A way of judging this apparent skewness would be to plot income data across several assessment exercises and to check to what extent the bigger amount of income correlated with certain characteristics of the universities (e.g., 'traditional' universities) rather than being an effect of the RAE ratings.

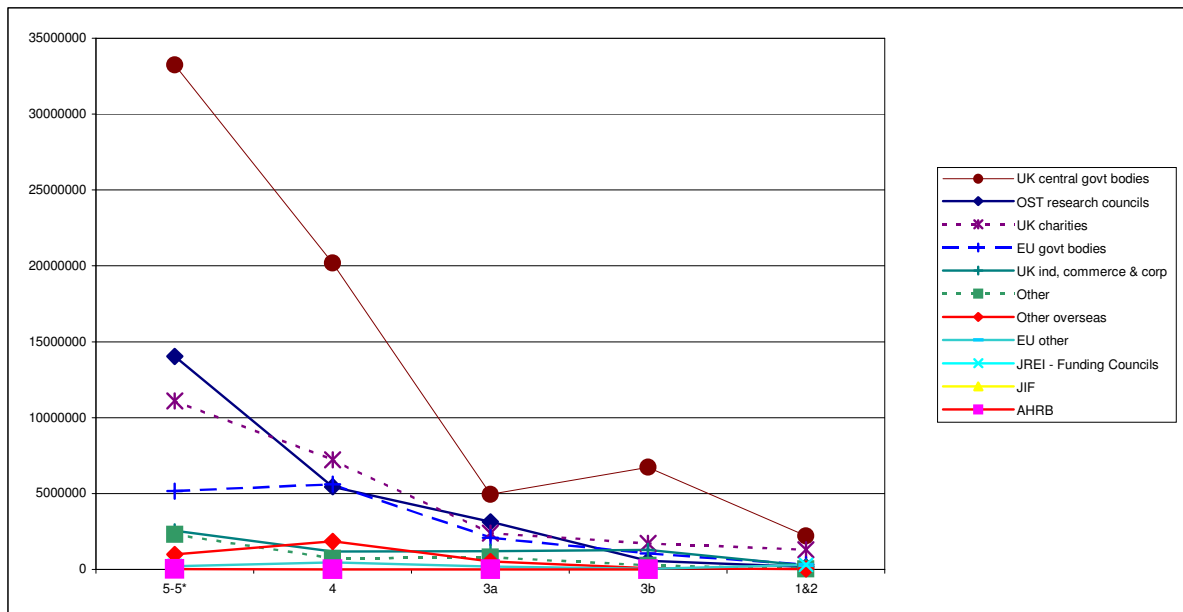


Distribution of income by types of sources (numbers and percentages)

The distribution of income, by source of income, within each group of institutions, suggests that the lower rated departments are more likely to seek alternative funding (EU, UK industry, commerce and corporations, UK charities, while the higher rated departments make use of income prominently from UK central governing bodies and OST research council, with a fair amount coming from UK charities and from non-EU overseas sources too. It might be worth exploring whether the pro-active efforts of lower-rated departments towards attracting alternative funding were an expression of increased confidence (in the case of 3a-s, for instance), or one of highly constrained situations that might have had depressing effects on the emerging research cultures. The chart below summarized the proportion of income from different sources in each type of institutions:



In absolute figures, the patterns for each source of income (across ratings) look as follows:



3. Research groups

Definitions (excerpts from RAE guidelines – RAE, 1999a):

- *Research group*: the research group that staff and outputs are assigned to. Only one research group was allowed to be assigned to each research output and a limit of 26 research groups were allowed to be assigned per submission.

The Education Panel, in its criteria, stipulated that institutions need to include, in the section *Research Strategy and Structure* of Form RA2, information on “how research groups are structured, who belongs to them (referring to RA1), how they operate, and their main achievements, activities, prime audience, educational significance and theoretical/ methodological orientation”. However, some of this information is considered confidential and is not fully available on line. Therefore, the findings below are only based on an analysis of the research groups’ names, without getting into further detail. They should thus be read with attention to the fact that only a finer grained analysis would ensure a better fit between each group and the analytic category it was allocated to.

Approach

Data in Form RA5 are not as straightforward as RA0 and RA4; they are not in numerical format, they are not consistently structured across submissions, and they vary considerably. A line-by-line coding was needed in an attempt to summarize such data. A great deal of simplification and an increased potential for error are associated with this.

Two possible approaches to the data seemed at hand when beginning this analysis:

-either to use a pre-designed analytic framework and content-analytic techniques; such a framework would have needed to be a comprehensive coverage of the field, with non-overlapping categories of comparable weight;

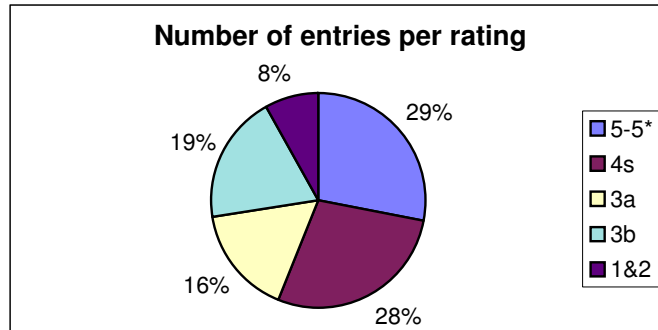
-or to start from the texts and gradually work out a scheme that would be a fair rendering of the data without so much concern for the relative weight etc. of the categories.

Some previous research and published comments were of assistance when exploring these alternatives. For instance, some starting points for a pre-designed framework could have been those elaborated and used by Basseby and Constable (1997, p. 6), Furlong and White (2000, p.25-29), Kerr et al (1998, pp.79-82), Nisbet (1995, p. 92), as well as the core keywords used in the EPPI-centre reviews (EPPI, 2003) and the field descriptors included in the RAE criteria (RAE 1999a). The effort of integrating such frameworks and testing them against the data could be a useful enterprise for future research. For the current project, however, the gradual construction of the framework starting from data, but informed by the literature, was preferred. The reason for doing so was that the identification of (no matter how small) areas where expertise/interest is unique and original seemed to be more important, for the time being, than an accurately weighted mapping that would have necessarily missed such detail.

The analytic framework that emerged is enclosed as Appendix 1.

There were altogether 438 entries (an entry being defined by the couple research group – institution), counted after subtracting the double entries for institutions that made a joint submission.

Each entry was coded for as many categories as applicable, in an attempt to capture the detail. Therefore the final number of coded entries raised to 644, distributed as follows:

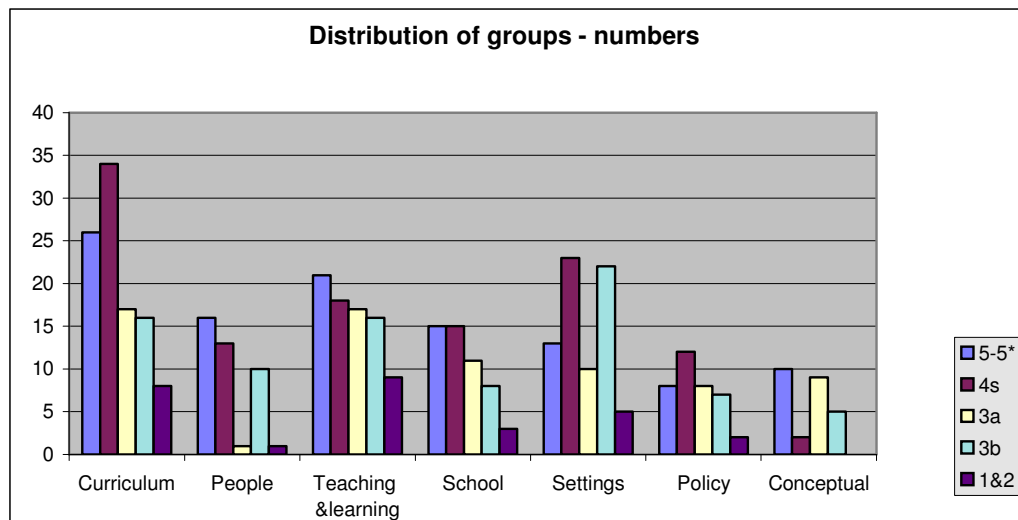


A limitation is generated by the fact that the coding was carried on using only the names of the research groups, rather than the full descriptions of them. The reason for doing so was the lack of time and further research needs to address this.

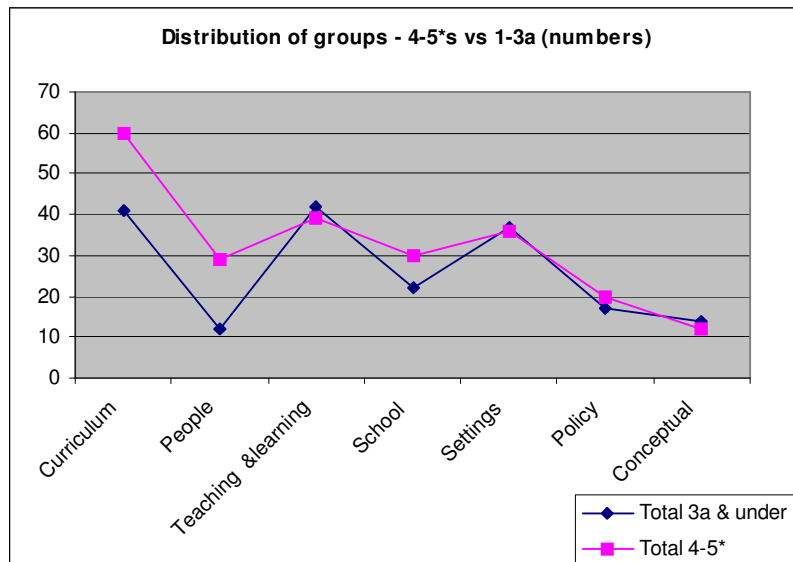
Findings

Distribution of research groups across ratings:

	Teaching							Comparative		
	Curriculum	People	&learning	School	Settings	Policy	Conceptual	& internat.	Methodology	Other
5-5*	26	16	21	15	13	8	10	6	2	3
4s	34	13	18	15	23	12	2	2	2	1
3a	17	1	17	11	10	8	9	1	0	0
3b	16	10	16	8	22	7	5	1	1	2
1&2	8	1	9	3	5	2	0	0	1	5
Total	101	41	81	52	73	37	26	10	6	11
Total 4 & under	75	25	60	37	60	29	16	4	4	8
Total 3a & under	41	12	42	22	37	17	14	2	2	7
Total 4-5*	60	29	39	30	36	20	12	8	4	4



It is interesting, from the chart above, how the interest and possibly the expertise in research on different educational settings (primary/secondary/tertiary, continuing education, work-based learning) appears to lie within the 4 and under sector rather than with the 5-5* institutions. Even when aggregating 4 and 5-5*s, the proportion for 3a-s and under still remains high for research on teaching & learning and research on issues specific to different educational settings.



The extent to which this distribution connects with the teacher training/research ratio or with methodological preferences (e.g. action research) and involvement with practitioner research in different groups of institutions remains to be explored.

Areas of expertise:

The finer-grained findings do not lend themselves to charting; however, they do point to some areas of expertise that seem to be preferred differently by groups of institutions:

→Institutions rated 3a and under:

- Areas in which the contribution (proxied by the number of research groups) of the lower graded institutions is crucial/ unique:
 - Teacher supply and retention
 - Problem-based learning
 - Learner-managed learning
 - Secondary education
 - School-based learning
 - Very able pupils
 - Physical education
 - Business education
- Areas in which more research is being carried on in institutions graded 3a and under than in institutions graded 4-5*:
 - ICT
 - Further and higher education
 - Continuing education and lifelong learning
 - Action research

→Institutions rated 4 and above:

- Crucial/exclusive contribution:

- Longitudinal research
- Methodological issues
- Economics of education
- Politics of education
- Educational psychology
- Learning out-of-school – learning and society
- More research being carried on in 4-5*s than in 3a-s and under:
 - Assessment
 - Philosophy of education
 - Special educational needs
 - Comparative and international education
 - Child development

The above findings need to be checked against fuller descriptions of the research groups and against data collected through form RA2; also, the extent to which the declared research groups do in fact express the research culture of an institution needs exploring. In addition, further research is needed on the appropriateness of the use of research groups as an indicator of research expertise in different fields and sub-fields of research. Finally, it is not clear whether further cuts in funding for certain groups of institutions would necessarily affect the areas where they have more exclusive expertise, rather than those that are covered in higher graded institutions as well. Therefore the findings above need to be read with caution.

III. Further research

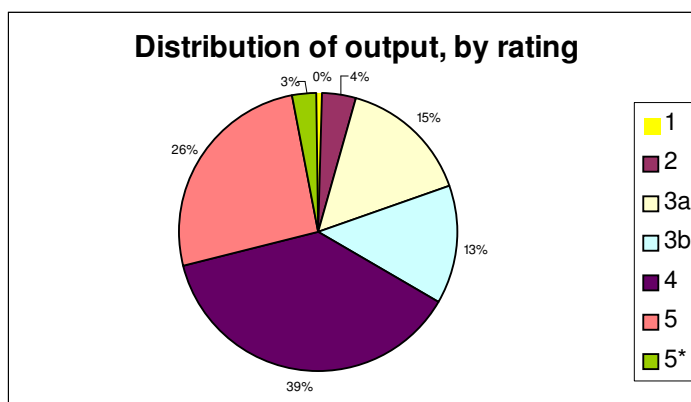
1. Mapping research expertise:

- A more comprehensive picture could be obtained by analysing the **CERUK database** (NFER, 2004). There are important limitations in this approach, however, having to do with:
 - the voluntary basis for submissions to the database (thus a very incomplete and arguably biased picture)
 - limitations regarding the searchability of the database (not very flexible).
- A perhaps more productive approach could be the analysis of the full **RA2 forms**, including the additional three fields that the Education Panel has requested to be recorded against each piece of research output:
 - the field of the enquiry (e.g. "teacher education", or "sociological theory developed in HE setting")
 - the prime audience and educational significance (e.g. "policy makers: homework policies in primary schools")
 - a succinct description of the theoretical and methodological approach.

A much fuller picture could thus be constructed, by crosscutting themes of research with details of the intended audience, research groups, perceived educational significance, and methodological approaches. Such analysis would require time (the database has about 9,000 individual entries to be coded and analysed) and would entail certain limitations, such as the risk of over-simplification that is intrinsic to any mapping exercise. I did not attempt such analysis due to the time constraints and the purpose of this report. However, I investigated the potential of such approach to yield interesting results. In order to do so, I constructed a set of keywords that I subsequently used to explore the database, with the aim of checking whether evidence of distributed research expertise exists. A summary of the findings is included below.

The total number of publications/ output entered for RAE was 9257, distributed as follows:

	Count	Percents
1	46	0.50
2	394	4.26
3a	1401	15.13
3b	1247	13.47
4	3475	37.54
5	2426	26.21
5*	268	2.90
Total	9257	100.01



Time did not permit a systematic analysis of data from form RA2 (outcomes), but it is a very rich source, especially as (starting with RAE 2001) it now includes information about intended audience, methodology and 'educational significance' of fields of research/ individual items of research (HEFCE, 1999). I have done some preliminary exploration of this database, and I filtered the entries using a set of keywords meant to give a flavour of the data. The results of this repeated filtering concern the intended audience of research outcomes from different groups of institutions,

as well as possible areas where research expertise lies closer to one end of the rating scale or to the other.

Intended audience:

I have used the following filters to extract data about possible types of intended audience:

- Researchers = ‘academic’ + ‘research’ + ‘lectur’ + ‘educationalist’
- Teachers and teacher trainers = ‘teach’ + ‘practit’
- Policy-makers = ‘policy’
- Administrators = ‘admin’
- Students (in education) = ‘student’
- International audience = ‘internat’
- Employers = ‘employ’
- General public = ‘public’.

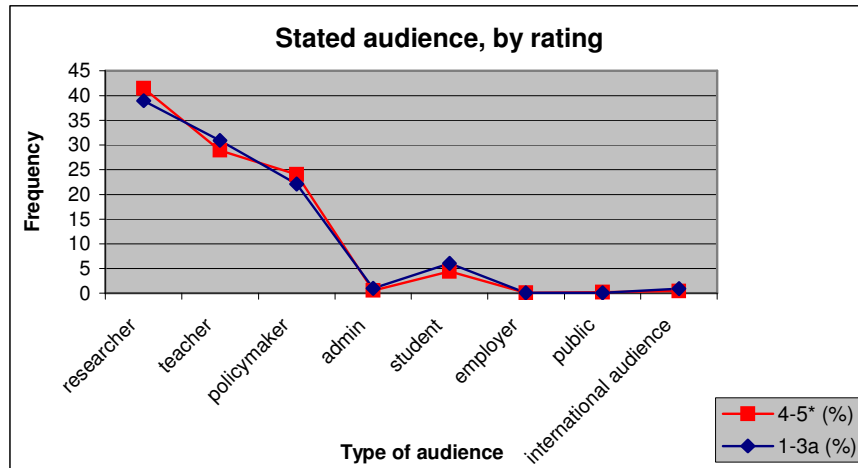
The table below only summarises the results of such filtering, and thus it cannot make any claim of representing the data in its entirety. The gathering of the figures included in this table has a fairly important error built into it, given by the fact that the description of the intended audience and the description of the ‘educational significance’ of a piece of research are aggregated within a single field of the form, and thus the returns to my filters might have included strings/ words from the ‘educational significance’ part of the data. Time did not permit proper analysis and disaggregating of these data.

	researcher	teacher	polycymaker	admin	student	employer	public	international audience	Total
1	27	1	45	0	0	0	0	0	73
2	182	219	95	8	38	1	0	15	558
3b	693	618	423	13	116	1	1	9	1874
3a	1015	685	524	28	142	0	1	21	2416
1-3a	1917	1523	1087	49	296	2	2	45	4921
4	2304	1573	1308	27	203	4	0	31	5450
5	1361	990	811	21	201	3	0	6	3393
5*	217	145	132	3	7	0	18	1	523
Total	5799	4231	3338	100	707	9	20	83	1428
1-3a (%)	38.9554969	30.94899	22.0890063	0.995733	6.015038	0.040642	0.04064	0.914448283	100
4-5* (%)	41.4477899	28.91309	24.03373906	0.544523	4.388213	0.074738	0.19218	0.405722827	100

The percentages in the table were calculated of the total results per type of institution. Other types of audience, not included here, were, for instance:

- LEAs;
- Media;
- Professionals (nurses, artists, engineers)
- Librarians etc.

The different groups of institutions seem to follow rather similar pattern, with a certain preference of 4-5* for a researchers and policymakers audience, to the detriment of a teachers audience:



If this pattern would still hold when properly analysing the whole database, it might indicate another areas where departments rated 3a and below could have crucial research capacity.

Areas of expertise

Keyword searches were a way of quickly getting information about the differential coverage of areas of research in different groups of institutions (in terms of RAE rating). For example, after querying the database, some fields of enquiry appeared as covered in departments rated 3a and below, rather than in departments rated 4-5*:

- environmental education
- headteacher training and development
- social justice,

whereas departments rated 4-5* had more prominent coverage of, for instance,

- issues of race
- discourse studies etc.

The examples above are just ‘first-glance’ observations; however, it might be worthwhile, even if potentially over-simplifying, to extend the analysis to the entire database.

2. Research strategy and evidence of esteem: research expertise vs. rhetorical efficiency

- *Data*: analysis of the information submitted through forms RA5 and RA6. *Problem*: restricted access to forms RA5 and RA6, parts of which were designated as confidential (sub-forms RA5c *Research strategy* and RA6b *Individual staff circumstances*), and were removed from submissions prior to publication.
- *Hypotheses and questions – rhetorical analysis*: the image the institutions present of themselves and the rhetorical means put into action in order to achieve it might be of high relevance here. A possible approach would explore to what extent, especially for “borderline” institutions, the differences in grades reflect differences in research expertise, as opposed to differences in rhetorical efficiency. This has nothing to do with the panel’s impartiality, as the “form” of the submission is an integral part of it and the panel cannot undertake discourse analysis or use information external to the submission. Also this does not mean that the grading process was biased, but only that the rhetorical efficiency of various submissions differed and thus some of them might have created an incomplete perspective of an institutions’ research activity.

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Universities Funding Council (1992) *Research Assessment Exercise 1992: The Outcome*. Circular 26/92. Table 71: Education

Appendix 1

Thematic framework: research groups

Limitations: classified only according to the group's name

Procedural issues:

- Each group was coded in as many categories as relevant.
- Categories are based on data, thus do not intend to cover comprehensively the field

1. Curriculum

1.1. Subjects

1.1.1. *Art, drama, music, design*

1.1.2. *Business and economics*

1.1.3. *English and literature*

1.1.4. *Language and literacy*

1.1.5. *Foreign and second languages*

1.1.6. *Geography and environmental education*

1.1.7. *Mathematics*

1.1.8. *Science and technology*

1.1.9. *Physical education*

1.1.10. *Religious, spiritual, personal, social and citizenship education*

1.1.11. *Health and dental education*

1.2. Assessment

1.2.1. Assessment (general)

1.2.2. Key Skills

1.3. Curriculum (general)

2. Pupils/students and teachers

2.1. Pupils

2.1.1. Child development

2.1.2. Psychology

2.1.3. Able pupils

2.1.4. SEN: disabilities and learning difficulties

2.2. Gender

2.3. Teachers

2.3.1. Teacher training and development

2.3.2. Teacher supply and retention

2.3.3. Teachers (general)

2.3.4. Practice development

3. Teaching and learning

3.1. Teaching and learning (general)

3.2. Teaching

3.2.1. Teaching (general)

3.2.2. Pedagogy and behavior management

3.2.3. Special education teaching

3.3. Learning

3.3.1. Learning (general)

3.3.2. School-based learning

3.3.3. Non-school-based learning and society

3.3.4. Learning and assessment

3.3.5. Learner-managed learning

3.3.6. Problem-based learning

3.4. ICT and communication

4. School and society

4.1. *School in community/society*

4.2. *Multiculturalism, democracy*

4.3. *Inclusion, support, equity*

4.4. *Discipline and bullying*

4.5. *Organisational development*

4.6. *Management and leadership in education*

4.7. *School governance*

4.8. *School effectiveness and improvement*

4.9. *Diversity and access*

5. Educational settings

5.1. *Early years education*

5.2. *Primary education*

5.3. *Secondary education*

5.4. *Compulsory education*

5.5. *Post-compulsory education*

5.6. *Further and higher education*

5.7. *Education outside the school*

5.8. *Youth transitions, vocational and professional education*

5.9. *Continuing education and lifelong learning*

6. Policy

6.1. *Policy analysis (general)*

6.2. *Policy and practice*

6.3. *Policy and research*

6.4.

6.5. *Policy evaluation and impact*

6.6. *Politics of education*

6.7. *Educational change and development*

7. Conceptual and theoretical work

7.1. *History of education*

7.2. *Philosophy of education*

7.3. *Sociological and cultural studies of education*

(general)

7.4. *Economics of education*

8. Comparative and international education

9. Methodology

- 9.1. *Methodology (general)*
 - 9.2. *Action research*
 - 9.3. *Longitudinal research*
-

10. Other (unspecific – e.g. “Education”, “Leverhulme Project”, “Social science”; singular topics – e.g. “librarianship”).

Appendix 2

Rating scale used in RAE 2001 (HERO, 2001)

5* (five star)

Quality that equates to attainable levels of international excellence in more than half of the research activity submitted and attainable levels of national excellence in the remainder.

5

Quality that equates to attainable levels of international excellence in up to half of the research activity submitted and to attainable levels of national excellence in virtually all of the remainder.

4

Quality that equates to attainable levels of national excellence in virtually all of the research activity submitted, showing some evidence of international excellence.

3a

Quality that equates to attainable levels of national excellence in over two-thirds of the research activity submitted, possibly showing evidence of international excellence.

3b

Quality that equates to attainable levels of national excellence in more than half of the research activity submitted.

2

Quality that equates to attainable levels of national excellence in up to half of the research activity submitted.

1

Quality that equates to attainable levels of national excellence in none, or virtually none, of the research activity submitted.

Appendix 3**RAE 2001 results**

Institution	2001 Rating
Anglia Polytechnic University	3b
Bath Spa University College	2
Birkbeck College	3b
Brunel University	3a
Canterbury Christ Church University College	3a
Cardiff University	5*
City University	3b
College of St Mark & St John	2
Coventry University	3b
Edge Hill College of Higher Education	3b
Glasgow Caledonian University	3b
Goldsmiths College	4
Homerton College, Cambridge ²	5
Institute of Education	5
Keele University	3a
King Alfred's College, Winchester	3b
King's College London	5
Lancaster University	5
Leeds Metropolitan University	3a
Liverpool John Moores University	3b
Manchester Metropolitan University	4
Middlesex University	2
North East Wales Institute of Higher Education	2
Nottingham Trent University	3b
Open University	
A - Educational Technology	4
Z - Education	4
Oxford Brookes University	3b
Queen Mary, University of London	1
Sheffield Hallam University	3a
St Martin's College	3b
Staffordshire University	2
Swansea Institute of Higher Education	2
The Queen's University of Belfast	4
University College Chichester	2
University College Northampton	3b
University College Worcester	3b
University of Bath	5
University of Birmingham	5
University of Brighton	3b
University of Bristol	5*
University of Cambridge ¹	5
University of Central England in Birmingham	3b
University of Derby	3b
University of Dundee	3a
University of Durham	5
University of East Anglia	4

University of East London	3b
University of Edinburgh	4
University of Exeter	5
University of Glasgow	4
University of Gloucestershire	3a
University of Greenwich	3a
University of Hertfordshire	3b
University of Huddersfield	3b
University of Hull	3a
University of Leeds	4
University of Leicester	4
University of Liverpool	3b
University of Manchester	4
University of Newcastle	4
University of North London	3b
University of Northumbria at Newcastle	3b
University of Nottingham	4
University of Oxford	5
University of Plymouth	3a
University of Reading	3a
University of Sheffield	5
University of Southampton	4
University of Stirling	4
University of Strathclyde	4
University of Sunderland	3a
University of Surrey	4
University of Surrey Roehampton	3a
University of Sussex	5
University of Ulster	3a
University of Wales, Aberystwyth	3a
University of Wales, Bangor	3a
University of Wales, Swansea	3a
University of Warwick	4
University of West of England, Bristol	3a
University of Wolverhampton	2
University of York	4
Westhill College	3a

1 - Joint submission with Homerton College, Cambridge

2 - Joint submission with the University of Cambridge