

Current Trends and Changes to Research Strategy in UK Universities and Medical Schools

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Introduction

In an effort to ensure that the UK government is getting value for money, the Funding Councils now assess the quality of the research and teaching being carried out in UK Universities.

The quality of research is assessed every four or five years by means of the Research Assessment Exercise (RAE) and because Higher Education Funding Councils (HEFC's) allocate research funds selectively on the basis of quality, the rating awarded via the RAE has a significant direct and indirect bearing on funding. This has led to major changes in research strategy, with many departments restructuring in an effort to gain a higher rating in future Research Assessment Exercises.

What is the Research Assessment Exercise (RAE)?

- The funding bodies allocate funds for research on the basis of quality.
- A periodic Research Assessment Exercise (RAE) provides the judgement of quality on which to base these funding decisions.
- "Research" for the purposes of the RAE is understood as original investigation undertaken in order to gain knowledge and understanding.
- It includes work of direct relevance to the needs of commerce and industry, as well as to the public and voluntary sectors.

The first RAE was held in 1986 and was repeated in 1989, 1992 and 1996. The next RAE is planned for the year 2001.

The RAE is a major operation, in 1996 almost 3000 submissions for assessment were received from 192 Higher Education Establishments, listing over 55,000 active researchers. There were 82 submissions for Biological Sciences and 62 for Chemistry.

How is the assessment carried out?

Assessments are by informed peer review. Assessors are academic and professional peers in the subject. Most are members of academic staff of universities. Others are drawn from industry, commerce and the professions.

Research Assessment Exercise – The Submission

Departments decide which unit of assessment (subject) is the most appropriate for their submission. There are over sixty, covering the Arts, Sciences, Medicine and Engineering.

The submission must include:

- The name of active researchers in post on the census date.
- Details of up to four publications or other forms of research output produced by these researchers during the specified period covered by the exercise.
- Information about the numbers of research students and studentships in the department.
- Information about the department's research income during the assessment period.
- Information about the department's research achievements, arrangements for supporting and promoting research, indicators of external recognition and any other relevant information.

The Assessment Panel – Criteria and Operation

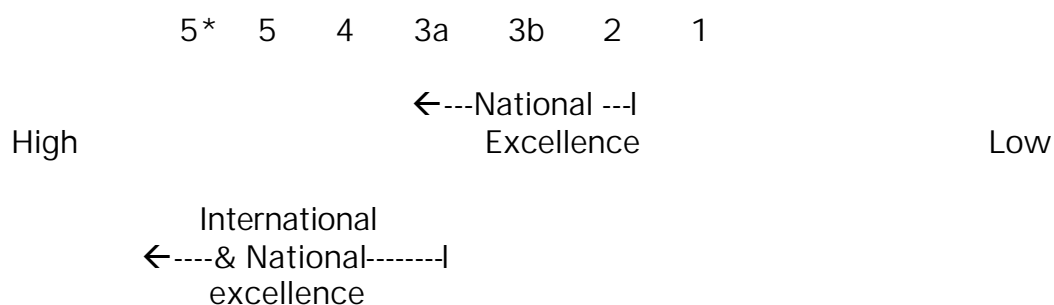
Each of the subjects has its own assessment panel comprising University staff, members of learned societies, subject associations, experts from industry and commerce, and other interested bodies. All are eminent and experienced researchers in their field.

The panels meet well in advance of the deadline for submissions to agree their criteria for assessment and working methods.

Results of the Assessment Exercise

The result of the RAE is the award of a research rating. The ratings are expressed in terms of a standard seven point numerical scale; the ratings reflect the panel's judgement as to the quality of the research submitted. Achievement of international excellence is essential to gain the highest ratings.

The Rating Scale – Summary



Reporting the results The results are reported using the following format.

Institution: University of Birmingham Number of submissions: 53

Unit of Assessment	Rating	Proportion of Staff Selected	Active research staff
Anatomy	5*	D (40 – 59%)	6.0
Biochemistry	5	B (80 – 94%)	24.0
Biological Sciences	4	B (80 – 94%)	33.5
Chemical Engineering	5	C (60 – 79%)	23.0
Chemistry	5	B (80 – 94%)	32.6

As you can see the report gives the total number of submissions and lists them alphabetically by subject giving the rating, the proportion of staff selected and the number of active research staff.

The results of the RAE are reported widely in the media. The information is often collated to produce unofficial league tables comparing the research performance of leading universities.

RAE 1996 – Top Fifteen Universities based on 5 & 5* ratings

University	Submissions		Total Submissions	% rates 5* or 5
	Rated 5*	Rated 5		
Cambridge	27	17	51	86
Oxford	25	15	47	85
Imperial College	6	12	24	75
University College London	11	18	43	63
Warwick	3	9	25	54
Bristol	1	19	43	47
Sheffield	5	13	41	44
Sussex	1	11	30	40
Manchester	4	14	49	37
Durham	1	10	31	35
Birmingham	4	14	53	34
Southampton	2	11	39	33
Leeds	4	12	51	31
Nottingham	6	8	47	30
York	2	5	23	30

This table gives the overall performance spanning all subjects. It will come as no surprise to find that Oxford and Cambridge are at the top! Incidentally, the order of merit based on Science, Engineering and Medicine only, is virtually the same.

What Effect does the Research Assessment Exercise have on Funding?

- Funding Council research funds are concentrated towards departments which have achieved the highest research ratings.
- A 1997 survey# found that 85% of Funding Council research funds go to departments rated 4, 5 & 5*. The equivalent figures for research funds from other government sources are very similar. Each step on the ratings ladder between 3a and 5* are thought to be worth £75K - £100K per year.
- A high research rating is likely to be advantageous when bidding for funds from government and charity initiatives.
- Because of the trend towards establishing centres of research excellence, which may in the future receive preferential funding, it follows that a high research rating is essential for future growth.

#Research Fortnight 14.5.97

The formulae used to allocate funds in UK universities are complex. The following extract from the journal "Research Fortnight" shows how the allocation of research funds from the funding councils is linked to a multiplier based on the RAE rating.

HEFC opens up the research poverty gap

- **New scale will concentrate research funds to elite departments**

THE POVERTY GAP between the research rich and poor in universities is set to widen. Last week the Higher Education Funding Council for England confirmed that its research funds will be further skewed to departments, which rated highest in the 1996 Research Assessment Exercise. Departments with a five star rating – the top grade in the 1996 RAE – will be rewarded with an extra premium of funding, while departments rated two or below will come away from the exercise empty handed. Unveiling the.....

Stairway to heaven

How the RAE rating is used in the HEFCE formula

1992 RAE rating	1	2	3	4	5			
Funding multiplier	0	1	2	3	4			
1996 RAE rating	1	2	3b	3a	4	5	5*	
Funding multiplier	0	0	1	1.50	2.25	3.38	4.05	

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The headlines say it all – the consequence of the 1996 RAE is that research funds from the funding councils are further concentrated towards elite departments – those who achieved the highest ratings. Departments graded 1 or 2 will receive zero funding, while a 5* department will receive four times the funding of a department graded 3b.

How do you improve your research rating?

Many departments are changing their research strategy by restructuring, in order to achieve a more balanced, more relevant research profile in the hope that this will lead to sustainable improvements in their research rating. This is illustrated by the following case histories.

Following relatively poor results (average rating – 3) in the 1996 RAE, an external review of research in the Faculty was commissioned, this recommended the formation of six new Schools from the eighteen existing departments. One of the new Schools is the School of Biomedical Sciences, formed by merging and restructuring the departments of Biochemistry, Human and Cellular anatomy, Pharmacology and Physiology, and the Multidisciplinary Laboratories. The new generic structures, institute formation, building changes, staff assimilation and grading, financial procedures etc. which were necessary in order to produce a more efficient cost saving structure, should lead to higher research productivity with improved quality, in preparation for the 2001 RAE.