

The Ranking of University Departments in Britain

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1. Introduction

The ratings of research quality in university departments published by the Universities Funding Council in August 1989¹ gave rise to anxiety if only because a crucial element of central funding now depends upon them. The anxiety is, however, much broader. The validity and reliability of assessments of 'the best places' is always uncertain and disputable. The 1986 UGC rating was criticized for its hurried crudity and the 1989 exercise, similarly confined to research, probably has a greater validity from the experience of the 60 specialist committees which prepared it. The interests of others are varied - from vulgar curiosity to information facilitating rational choice on the part of parents, students, employers and academics themselves as well as civil servants, administrators and politicians making funding decisions.

We shall doubtless hear much more about the UFC exercise through the papers and evaluations being presented by Professors Sizer, Taylor and Dr Ben Martin. My own contribution can be no more than a footnote to these weighty considerations of policy. But it also suggests a wider approach to the problems of understanding variations in research and teaching quality in the evolving British system of universities and polytechnics.

Martin Trow and I wrote a portrait of **The British Academics** in 1971 which emphasised the historically-determined hierarchical character of the university system both before and in the immediate aftermath of the Robbins Report of 1963. The correlates of research orientation were there explored, partly through a sample survey of British university teachers in 1964 and partly through institutional analysis. I then repeated the survey in 1976 and in 1989 so that trend statistics are now possible. I also added an explicit question about the location of the best departments in the respondent's discipline.

¹ Published in Times Higher Education Supplement 1.9.1989.

Thus the 1976 and 1989 surveys yield reputational rankings by academics in their own subject on a wider set of self-defined criteria, i.e. not necessarily confined specifically to research quality. The respondents were asked 'Where are the best three departments in your subject, whether at universities or polytechnics?'.

Before presenting the results of the ranking question, it is worth remarking that my general analysis of the surveys carried out in 1964, 1976 and 1989 are beginning to demonstrate important relevant movements in the research orientation and research productivity reported by university respondents. In 1964 only 10% of the universities sample reported themselves as very heavily oriented to research as distinct from teaching but by 1989 this response had doubled to account for 20%. Meanwhile, over the same period, the proportion of the sample reporting that they had published at least twenty articles also roughly doubled from 27% to 53% and the proportion who had published 5 or more books rose from 4% to 13.5%. Similarly, those who agreed with the assertion that 'an academic first loyalty should be to research in his discipline. The teaching of students and the running of his university should be second to this first duty of an academic career' was 4% in 1964 and 11% in 1989.

We cannot necessarily take these indications of opinion and behaviour entirely at face value. Both research orientation and research productivity are correlated with age, academic rank, gender and institutional affiliation and all of these relations need further exploration. But it is noticeable that, if age is kept constant, measures of productivity still show marked increase, that gender is related to productivity and that there are major differences between universities in both the interest and the performance of research. In general it appears that productivity is correlated with rank and with membership of institutions in a hierarchy of prestige. Thus Oxford dons reported in 1964 that 39% of them had published twenty or more articles compared with 33% in London, 26% in the major Redbricks and 6% in the ex-Colleges of Advanced Technology which became technological universities. Looking again at the hierarchy in 1989 the Oxford figure rises to 56%, the major Redbricks to 55% and the technological universities to 40%. In short the hierarchy appears to be fairly stable over time but at a rising level of research orientation.

Against this background we can consider the pattern of answers to the question about 'best departments'. To present the results both briefly and fairly is difficult. Universities and polytechnics vary in size and subject coverage. Institutions of higher education are patchy, some departments having higher repute than others. Smallness of institution, subject, or sample, reduce

visibility and also increase the risk of measurement error. Largeness may exaggerate fame. Moreover there is the problem of weighting which arises if second and third choices are allowed to count. My solutions to all these problems are arbitrary but not unreasonable. A first choice is counted as three points, a second as two and a third as one. This yields a sum rate for each institution and each subject, which is the number of mentions multiplied by the scores as defined. Second, I have excluded from overall assessment any university or polytechnic with a sum rate of 150 or less from the university respondents. A consequence is that no polytechnic and only 21 university institutions appear in the league of highly reputable research universities.

The problem of largeness arises in the case of London because its famous colleges are virtually autonomous. LSE, Imperial, UCL and King's are separately identified and the London medical institutions grouped as one, leaving out other institutions. It should, however, be noted that if London were treated as a single entity it would have a sum rate of 2747 from the university respondents and therefore lead the list unless Oxford and Cambridge were to be combined as Oxbridge to replace it.

Another possible source of error comes from the known bias of respondents towards the merit of their own institution. This bias would have the effect of favouring the larger departments. I therefore re-analysed the rankings excluding 'home votes'. But the results are virtually the same, particularly with respect to the dominance of Oxford and Cambridge in the rankings detailed below.

2. Overall Rating

On these assumptions and cautions the 1989 league table of universities in the eyes of dons and as a general assessment runs as follows:

Table 1
Overall ranking of British universities, 1989

Ranking	Institution	Sum Rate 1989
1	Oxford	1920
2	Cambridge	1902
3	Manchester	678
4	Edinburgh	592
5	Imperial College, London	587
6	London Medical (combined)	536
7	Bristol	512
8	UCL	481
9	LSE	418
10	Warwick	366
11	Glasgow	268
12	Leeds	260
13	Nottingham	249
14	Southampton	243
15	Birmingham	218
16	Sheffield	205
17	Lancaster	173
18	Newcastle	169
19	Reading	159
20	King's College, London	157
21	York	151

The cut-off at 150 points is arbitrary. Below that the rankings become pretty meaningless in that less than 82 respondents recorded a first, second or third choice in any subject.

The league table emerging from the judgement of university academic staff contains few surprises. Oxford leads with 1920 points followed closely by Cambridge. There is then a huge gap until Manchester takes third place. Edinburgh is fourth. The big London colleges are prominent and the eminence of Imperial and LSE is notable given their restricted subject coverage. The major Redbricks retain their solid strength. The mild surprises are that Warwick has risen so rapidly to tenth place in its short career and that Lancaster and York are among the 21 leading places.

This first simple assessment can be repeated using the polytechnic staff rather than the university staff as the judges. The result (not printed) is not wildly different. Of the top 19 places as judged by university staff 11 are at the top of the polytechnic list and again no polytechnic is included. Manchester Polytechnic came nearest with 86 points. Cambridge, Oxford and Imperial are the leaders with Manchester fourth, LSE fifth, Warwick sixth, Bristol seventh and Edinburgh eighth.

3. Subject Rankings

A second step is to differentiate subject areas. In the broad subject groupings used in recent official statistics before the introduction of cost centres and again using the sum rate and splitting London into its main colleges, it emerges that Oxford leads in the arts and social studies and Cambridge in the sciences. The London hospitals have the highest repute in medical studies and Imperial College in engineering and technology. Three smaller subject areas are also delineated. London leads in education. Glasgow and Reading tie for first place in agriculture, forestry and veterinary studies and Reading leads in architecture and similar professional training. If however London is treated as a single entity it wins first place in six of the nine areas with a third in languages and literature, a third in the sciences and a fourth in architecture and related training.

Table 2
Subject Group Best Departments 1989 - University Respondents

Subject	Institution	Ranking	1989 Sum Rate
Arts	Oxford	1	255
	Cambridge	2	220
	Bristol	3	47
	Edinburgh	4	42
	Manchester	5	37
	East Anglia/Warwick	6	34
Language/Literature and area studies	Cambridge	1	277
	Oxford	2	255
	UCL	3	76
	Edinburgh	4	68
	York	5	55

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Table 2
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Subject	Institution	Ranking	1989 Sum Rate
Architecture and other professional studies	Reading	1	13
	Sheffield	2	11
	Cambridge	3	10
	Bath/Cardiff	4	9
Social, administrative and business studies	Oxford	1	382
	LSE	2	372
	Cambridge	3	244
	Manchester	4	173
	Warwick	5	162
Science	Cambridge	1	821
	Oxford	2	698
	Imperial	3	306
	Edinburgh	4	241
	Manchester	5	154
Agriculture, forestry and veterinary studies	Glasgow/Reading	1	39
	Edinburgh	2	32
	Bristol	3	31
	Nottingham	4	26
Engineering and technology	Imperial College	1	253
	Cambridge	2	181
	Southampton	3	99
	Manchester	4	57
	Bristol	5	52
Medicine, dentistry and health studies	London (combined)	1	680
	Oxford	2	270
	Manchester	3	201
	Cambridge	4	133
	Edinburgh	5	130
Education	London (combined)	1	104
	Exeter	2	45
	Leeds	3	24
	Warwick	4	20
	Loughborough	5	19

Third, and finally, the 1976 and 1989 surveys offer some indication of the stability of ranking of the different universities. The number of judges or 'voters' is sufficiently large in 17 subjects and the outcome of ranking by university respondents is shown in the third table below. In this case only first choices are used yielding a rank by the percentage of choice obtained. Only subjects with at least 40 'voters' are included except in the case of philosophy where the number dropped to 30 in 1989.

This more detailed ranking of subjects confirms the two simpler pictures. Cambridge leads strongly in the sciences and Oxford equally strongly in the arts. Nevertheless this is by no means the whole story. The London School of Economics offers a strong challenge in the social sciences attracting the highest number of votes in economics, sociology and politics. Imperial College has a possibly more remarkable prestige, sustaining its first position in civil engineering as well as a third place in chemistry, mathematics and physics. Moreover the solid worth of the Victorian foundations in Manchester and Bristol as well as the enduring excellence of Edinburgh and the quickly established positions of some departments in the new universities, notably Warwick, are all important features of the current university scene in Britain.

Table 3
Ranking Stability 1976-89

Subject	Survey Date	1st	2nd	3rd	4th	5th	Other UFC Top Ratings
ENGLISH	1976	Oxford	Cambridge	UCL	East Anglia	York	
	1989	Oxford ⁵	Cambridge ⁵	York ⁴	UCL ⁴	Birmingham ⁵	
FRENCH	1976	Oxford	Cambridge	Manchester	Bristol	Bradford	
	1989	Cambridge ⁵	Oxford ⁵	Aston ⁷	Bath/Bradford/ Essex/ Nottingham/ Reading ⁵ / Salford/ Edinburgh ⁴ / Warwick ⁵		
HISTORY	1976	Oxford	Cambridge	Edinburgh	LSE	LSE ⁵	UCL ⁵ Birmingham ⁵
	1989	Oxford ⁵	Cambridge ⁵	SOAS ⁷	Edinburgh ⁴		
PHILOSOPHY	1976	Oxford	UCL				
	1989	Oxford ⁵	Cambridge ⁵ / Warwick ⁴				
	[nb only 30 'voters' appeared in 1989]						

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Subject	Survey Date	1st	2nd	3rd	4th	5th	Other UFC Top Ratings
ECONOMICS	1976	LSE	Cambridge	Oxford	Edinburgh	Warwick	Birkbeck ⁵ Essex ⁵ Shampton ⁵ York ⁵
LAW	1989	LSE ⁵	Oxford ⁵	Cambridge ⁴	Warwick ⁵		
	1976	Oxford	Cambridge	LSE	Edinburgh	King's	
	1989	Oxford ⁵	UCL ⁵	Cambridge ⁵	QMC London ²	King's ³	LSE ⁵ Bristol ⁵ E'burgh ⁵
GEOGRAPHY	1976	Cambridge	UCL	Bristol	Durham	Aberdeen/ LSE	
SOCIOLOGY	1989	UCL ⁵	Cambridge ⁵	Bristol ⁵	Durham ⁴	Oxford ⁵	Leeds ⁵
	1976	LSE	Oxford	Essex	Manchester/ Cambridge		
	1989	LSE ⁴	Essex ⁵	Surrey ² / Lancaster ⁵ / Cambridge ⁵			Oxford ⁵ Warwick ⁵
BIOLOGY	1976	Cambridge	Edinburgh	Sussex/ Glasgow London (Med.)		Bristol/ L'pool UCL ⁴	
	1989	Cambridge ⁵	Oxford ⁵		Edinburgh ⁴		Warwick ⁵ Imperial ⁵

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Table 3
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Subject	Survey Date	1st	2nd	3rd	4th	5th	Other UFC Top Ratings
PHYSICS	1976	Cambridge	Oxford/ UCL	Imperial	Bristol	B'mingham	Birmingham ⁵ Bristol ⁵ /UCL ⁵ Liverpool ⁵ Manchester ⁵ Nottingham ⁵
	1989	Cambridge ⁵	Oxford ⁵	Imperial ⁵			
MATHEMATICS	1976	Cambridge	Manchester	Oxford/ Imperial		Edinburgh	
	1989	Cambridge ⁵	Oxford ⁵	Edinburgh ³	Imperial ⁵	Manchester ⁴	Warwick ⁵
CHEMISTRY	1976	Cambridge	Oxford	Imperial	Bristol	Leeds	
	1989	Oxford ⁵	Cambridge ⁵	Imperial ⁵ / Bristol ⁵			Nottingham ⁵ Southampton ⁵
CIVIL	1976	Imperial	Cambridge	Swansea	Leeds/UCL		Bristol ⁵
ENGINEERING	1989	Imperial ⁵	Cambridge [?]	Leeds ³ / Loughborough ³ / Nottingham ⁴			Newcastle ⁵ Swansea ⁵ UCL ⁵

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Table 3
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Subject	Survey Date	1st	2nd	3rd	4th	5th	Other UFC Top Ratings
GOVERNMENT AND ADMINISTRATION	1976 1989	LSE LSE ⁵	Cambridge Oxford ⁵	Oxford Manchester ³	Leeds Essex ⁵	Edinburgh Hull ³	Warwick ⁵ Strathclyde ⁵ King's London ⁵
PHYSIOLOGY	1976 1989	Cambridge UCL ⁵	UCL Oxford ⁵ / Cambridge ⁴	Oxford	London (Med.)		

NOTE: The superscript numbers refer to UFC categories.

5 = International excellence in many areas, National excellence in all others

4 = National excellence with some evidence of International excellence

3 = National excellence in a majority of areas or limited International excellence

2 = National excellence in up to half of areas

1 = Little or no National excellence

The last column notes universities with a 5 grading by the UFC who were not included among the institutions with the highest number of first choices by the 1989 survey respondents evaluating all departments in their own discipline.

4. Concluding Remark

The Augsburg Conference was illuminating both with regard to the general nature of ranking of academic departments and the application of the general ideas to the exigencies of German universities. There seems to be consensus that peer review is the best basic principle of evaluation. From this point of view both the UFC exercise and my survey have their advantages and carefully collected further statistics including bibliometric indicators should be seen as supplementing rather than supplanting the basic principle.

My ranking was a by-product of a general survey of conditions and opinions in the British university and polytechnic senior common rooms. It was not conceived as an alternative to the UGC or UFC evaluations. Its strength is as a contribution to a general sociological sketch of higher education in Britain. To attempt to use it as a precise measure of each particular department or institution would be a grave weakness. The outline of the distribution of research productivity and orientation in the British system as a whole comes out in reliably clear focus. The hierarchical character of the system was hardly to be doubted and the peaks of Oxford and Cambridge and the major London colleges stand out with prominent clarity. But, below these high mountains, further differentiation is hazardous and discrimination for the purpose of either state funding of research or present and future merit of particular departments needs much more refined information.

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