The 1989 UFC Research Selectivity Exercise
Research Selectivity and the Evaluative State

Sir William Taylor

1. Introduction

The 1989 Research Selectivity Exercise can be commented upon at several levels. Peter Jones and John Sizer (this issue) have already outlined its purposes, procedures and outcomes. In the first part of my own paper I should like to say something about the **context** in which exercises of this kind take place, and then to look at its **impact** on a single institution, namely the University of Hull.

2. The Context for Assessment

The assessment of research performance is one aspect of our current interest in how well systems, institutions and individuals perform their work. The surface justification of such interest is in terms of value for money, the best use of scarce resources, efficiency and effectiveness. However, fully to understand the significance of such concerns requires that we look deeper.

It is helpful to see performance indicators as one element in the response of governments and authorities responsible for the distribution of resources to some of the dilemmas of managing and governing contemporary economies and societies.

The first of such dilemmas has to do with what I want to call the transparency of self-interest.

Accountability must today be explicit and demonstrable, rather than an implicit term of a professional's contract. The intellectual inheritance of Darwin, Marx and Freud have combined with the residues of a Christian heritage of sin and redemption to demystify altruism, heroism, self-sacrifice and disinterestedness. Such virtues are today little valued as explanations of

social action and group behaviour. There is an all pervasive "knowingness" about individual and group motivation. This has both its positive and negative aspects. It liberates the consumer and less-privileged groups from the power of the expert. It also suggests a lack of trust in, and of the comfort that can be offered by, the available service or advice.

A second dilemma has to do with the difficulties of relating **wants** and **needs**, and the open-ended character of many individual and group aspirations. Need can no longer be self-assessed. The respective claims of different sectors must be externally evaluated.

Third, performance evaluation is one arrow in the quiver of those concerned to attack what they perceive as the vested interests of particular groups, including, it has to be said, academics. The likelihood of special interest segments using monopoly positions for their own economic advantage has been increased by democratisation, labour legislation, the imperfections of the market and dependence on technologies over which relatively small groups of workers and providers exercise effective control. It is no longer readily accepted that the internalisation of high professional standards within a particular occupational group adequately safeguards the public against malfeasance and inadequate performance.

Fourth, in societies characterised by a plurality of often conflicting values, rankings derived from performance assessment offer the promise of universality, and serve the general wish to secure value for money, to possess objects and to experience levels of service that embody fitness for purpose in delivery, manufacture and design.

Fifth, given that differences in resource distribution must now be justified and defended, rather than taken for granted, the assignment of numbers and ranks to performances serves to legitimate the objectivity of decisions. The apparent "quantification" of arithmetical representations of ranking, however non-linear and impressionistic the underlying judgements, adds credence to allocations that are more favourable for some than for others.

Sixth, the use of performance indicators such as research rankings makes institutional complexity more manageable. Argument is directed away from the outcome of resource distributions consequent upon ranking, and towards the relatively 'technical', depoliticised, one-off process of developing and obtaining approval for the formulae by means of which cash limits are determined. Such measures make the process of resource allocation more impersonal, with a consequent reduction of political temperature.

Seventh, assessments of performance emphasise the rationality and predictability of behaviour, and hence the possibility of its being controlled and directed.

Eighth, performance assessment serves as a substitute for market disciplines the absence of which has made many public services particularly vulnerable to accusations of self-serving bureaucracy, inefficiency, and the employment of resources for system-maintenance rather than delivery of services.

Ninth, the assessment of performance offers the opening up the black box that in many fields has hitherto occupied the space between the analysis and discussion of inputs and the attempt to measure outputs. In so far as systematic performance evaluation leads to asking and answering questions about the processes that have brought about particular results, it offers the possibility of a more rational, ends-oriented direction of effort.

Tenth, evaluation facilitates the imposition of social and institutional discipline, in that it makes back-sliding more visible, and encourages appropriate remediation of poor performance to be applied at a sufficiently early stage to secure improvement.

Eleventh, the appraisal of performance helps to enlist commitment within the institution - either to maintain a high performance, or to improve upon a low one. Academic managements can use the evidence provided by performance indicators to identify, justify and carry through organisational reforms and personnel changes.

Finally, it has to be said that a great deal of this would not be possible without the capacity to manipulate complex data that has been created by the availability and use of sophisticated, computer-based management information systems.

I have developed these ideas at rather greater length in a yet unpublished paper given at the 1989 Conference of the European Association for Institutional Research at Trier. We can better understand the uses and limitations of assessments of research performance if we see these in the broader social, political, economic and institutional context that I have sketched, and if we are thereby aware of some of the latent functions that the introduction of research ranking may serve.

3. The impact of Research Selectivity on one University

This said, what has been the impact of the 1989 UFC Research Selectivity exercise on the institution of which I am the Academic and Administrative Head?

Overall, we did better in 1989 than in 1986. This, despite the need during that period to close seven departments, totally to restructure our academic activity within fourteen schools (rather than the earlier pattern of 48 departments organised into four faculties) and, in order to contain a serious financial deficit, the loss of the equivalent of some 90 academic staff and the equivalent of a further 50 academic posts in support and service staff (cf. Appendix 1). Given also the fact that we have the lowest or next to lowest proportion of work in Science and Technology in any University in Britain, and that many of our academic units are smaller than either we or the UFC consider desirable, to occupy seventh position (out of 22) in the so-called "third division" of universities, as against (admittedly on the basis of not strictly comparable classifications) the seventeenth position in 1986, is testimony to my colleagues' hard work and success during a period of considerable difficulty.

There is a general feeling that the 1989 exercise was more sophisticated and therefore fairer than its predecessor. The 1985/86 exercise had been criticised on a number of grounds, summarised in Jones (1989).

Jones refers to criticisms of unclear criteria for assessment; lack of information about the identity and institutional affiliations of the academic assessors involved in the exercise; a tendency for inter-disciplinary and joint work to be disadvantaged; the in-built bias of the methodology against small departments; a confusing use of terminology in presenting the outcomes, especially the use of the perjorative and unclear category of "below average"; variations in assessment standards from subject to subject; the retrospective nature of the data which ignored on-going work and potential; the absence of any means of appeal; and the relative lack of consultation with associations representing disciplinary and professional interests.

In 1989 the UFC was careful, in designing its methodology and carrying out its review, to deal with as many as possible of these criticisms. Nonetheless, there are still considerable difficulties and dangers in combining and encapsulating as a single point on a five point scale data as complex as numbers of staff and research students; income from research and from contracts; a variety of types of publication, and evaluations of plans and performance in

respect of a wide range of research - pure and applied, short-term or strategic, local, national or global in scope.

Williams et al. (1989) found that in a sample of universities surveyed, the effects of new funding mechanisms had been to create or strengthen senior management posts concerned with a number of aspects of income generation, including funds from industry and recruitment of overseas students; the raising of "free money" by means of alumni and other donations; public relations, and the management of institutional research. Finance offices had increased in size and influence and there was a concern throughout the institutions surveyed with more pro-active, systematic and effective costing and pricing. In appointing staff, especially at senior levels, more emphasis was being placed upon managerial experience. In accordance with the recommendations of the Jarratt report (1985), lay participation in Universities Councils and Planning Committees was receiving greater emphasis. Contractural arrangements for academic staff were being tightened, and clearer rules laid down for sharing additional income between individuals, their academic units and central administrative services. Finally, performance indicators were being used for both inter- and intra-institutional comparison and as a basis for resource decisions.

Our own experience has been consistent with these findings. At institutional level, the University's research objectives form part of the plan submitted to the UFC for 1991-94 funding (cf. Appendix 2). This has entailed some changes from the planning base operated during the period 1985-89. The plan for that period set the broad framework for the allocation of resources for teaching and research to schools and academic and administrative support services, fixing academic and related staff base lines for end subject area, which took into account research strengths and the plans of the schools concerned.

Base lines were also set for technical, clerical and other support staff which, again, took explicit account of the level and quality of research activity. Non-staff resources, including departmental recurrent, equipment and library book grant allocations were made on the basis of formulae, each containing separate elements for teaching and research. Space was allocated centrally, in relation to the teaching and research activity of each school and with specific provision where appropriate for growth to accommodate schools' research plans.

Some of these elements will be carried forward into the new planning regime, which is based upon a bid for student numbers against a published guide price for teaching, administration and support services. A

numbers-related research element will be added by the Funding Council to the funds secured through a successful bid for teaching resource. The UFC formula includes a judgemental element linked to research rating (JR). The proportion of money thus allocated selectively is to be increased. At the same time, the additional research support that has been forthcoming from the UFC on the basis of success in obtaining specific grants from the Research Councils (DR) is to be transferred to and allocated by the Councils themselves.

It is likely that the University will move away from fixed staffing base lines for each academic area towards the concept of school-specific income targets, arrived at after negotiation with the academics concerned and in the light of past and present performance and potential. In order to maintain or enhance their staffing and levels of non-payroll expenditure, schools need to achieve or improve upon their income targets. The savings consequent upon failures to do so would be obtained largely by within-school expenditure reductions, although the possibility of short-term cross-subsidy is not excluded.

Before resource decisions can be influenced by research selectivity, systematic and accurate information must be available concerning the way in which resources are allocated and employed. The University has recently invested heavily in a new administrative computer system and is engaged with a "family" of other universities in developing and customising appropriate software.

Within the overall implementation of its academic planning processes, the University has established a research committee (as a sub-committee of its Academic Policy Committee) to advise on research policy and to help schools identify their research priorities and objectives. It is chaired by the Pro-Vice-Chancellor with special responsibility for resources, and includes the Pro-Vice-Chancellors responsible for each group of schools, and another senior member of academic staff from each of these groups of schools. The Pro-Vice-Chancellor and senior member of academic staff are expected to liaise with the school research committees within their group, to comment on research plans and priorities and to monitor progress in achieving research objectives. The remit of the University research committee is to

(a) review critically schools research performance against aspirations for the current planning period, utilising where available appropriate quantitive data;

(b) to make appropriate recommendations to schools and units of assessment;

(c) to determine research priorities in consultation with school research committees and in the light of UFC research ratings;

(d) to make consequential recommendations to APC concerning recurrent equipment and library grant allocations;

(e) to consider and make appropriate recommendations concerning research objectives and priorities for the remainder of the planning period, and

(f) to monitor the success of schools and units of assessment in meeting research objectives and priorities on an annual basis.

Levels of research activity are reflected in distributions to schools and academic units of recurrent grant, equipment grant, and library grant. Some 40-45% of the allocations under each heading are for research.

In the case of recurrent grant, the balance of this 40%, after certain specific allocations, is distributed in accordance with the numbers of base-line academic staff, weighted as one for Arts, four for 'intermediate' and six for experimental Science and Engineering. The distribution of equipment grant is also weighted by the inclusion of a research element.

The 45% of Library grant associated with research is allocated to reflect weighted numbers of academic staff (2), research staff (1.5) and postgraduate research staff (1).

The percentage of each institution's funds allocated selectively in support of research does not in itself tell us much about the extent to which an institution is mirroring the UFC's own judgements. We also need information about how much grant is 'top-sliced' prior to the application of a formula for the purpose of creating discretionary funds, and how these are then allocated. There are no such funds at Hull. Instead, half of whatever proportion of funding is allocated in recurrent, equipment and library grant allocations for research constitutes a basic 'floor', with the remaining 50% being distributed in accordance with a judgemental rating, calculated on a 3 point (A,B,C) scale. Subject areas will be rated on this scale according to

1. ratings achieved in the 1989 Research Selectivity Exercise.

2. Quality and effectiveness of the subject areas research plan.

3. Research ratings that it is intended to achieve in the next Research Selectivity Exercise.

4. Success in achieving research and objectives.

It has been decided that 'A' gradings should be weighted 5, 'B' gradings 3 and 'C' gradings 1.

By interpreting the UFC rankings in this way, the University takes into account not only past performance, but also the quality of research plans, and the degree of success in achieving on-going objectives. Thus the effect is to 'smooth' the UFC ratings over time, rather than to impose sharp disjunctions in resource allocation which cannot be modified until the results of the next national exercise are known.

In addition to the University Research Committee, the board of each school has been required to establish a Research Committee of its own, with the task of reviewing research policies and priorities on an annual basis; making recommendations to the school board concerning research funding from centrally allocated funds; advising on the planning and preparation of research projects and funding applications; developing school research plans, reports and initiatives, and liaising with the University Research Committee and other central bodies.

Under the new 'bid-price' funding regime to which reference was made earlier in this paper, it is the intention that schools should have freedom to switch expenditure between staff and non-staff budgets, and to have a large measure of autonomy in allocating the resources distributed from UFC grant and those earned from other income generating activities.

In reviewing the national scene, the UFC have suggested that among other categories of internal resource distribution affected by research selectivity in some universities are space; minor works; computing resources; short-term research appointments; conference funds; senior staff ratios; salary differentials, particularly at professorial level; support for additional posts in areas of outstanding performance, special funds to attract outstanding professors to reinforce existing research groups, and special allocations to support new inter-disciplinary developments.

The Performance Indicators Steering Committee set up jointly by the Committee of Vice-Chancellors and Principals and the UFC have undertaken two pilot surveys to test and refine methods of collecting data on research

publications. Among the publication categories to be surveyed are 'letters' or short papers to journals; papers in academic or professional journals; review articles; book reviews; books (defined as publications bearing an ISBN number); official reports; contributions to published conference proceedings; departmental working papers; journal editorships; and 'research output in other media', including e.g. data-bases, maps, patents granted, programmes or segments for film, radio or television and commercially exploitable software. Few universities appear to be using bibliometric methods for internal resource allocation, and most are unsympathetic to the use of such methods for distributing funds at national level. Despite such doubts about the usefulness of publication counts, it seems likely that the Working Party will press on with an all-subject survey in 1991, the results of which will be available to the UFC in connection with the next research selectivity exercise.

4. Questions and Issues

In conclusion, it may facilitate discussion if I suggest a few queries about the impact of the recent research selectivity exercise.

The new funding regime that will begin with the UFC response to individual university bids for student numbers, and the implementation of the revised split of research funding between the general numbers-based 'floor' and the grant-specific infrastructure allocations by the Research Councils, are likely to lead universities to evolve new strategies to maximise their income and capacity to support existing and putative payroll and non-payroll commitments.

In the event of a university that is already less strong in research being unsuccessful in an expansionary bid, and receiving inadequate support for its existing commitments, there will be a strong temptation to recruit additional students at the new 'banded' fee rates, which in some cases equate to or exceed marginal costs. This will further weaken staff-student ratios, and thus put pressure on the research time available to staff. If a number of universities were obliged to respond in this way, a category equivalent to the 'teaching university' recommended by the Advisory Board to the Research Councils, and decisively rejected by the university community, could come about not as the result of a shift in policy, but because of the need of individual universities to survive.

Should unsuccessful bidding be more widely distributed, or if on the basis of lower priced bids or UFC perceptions, strong teaching universities are more successful, the effect could be a general weakening of research.

In any event, there are likely to be variations within institutions, some subject areas being pressed to take fees-only students and thus weaken their research, others with greater research income-generating potential being protected.
Questions have also to be asked about the overall effect on the position of each discipline and professional field of individual universities seeking to maximise their own funding. For example, according to the size and proportion of the element of research funding that is attracted by student numbers allocated in response to current bids, it could pay a university to prioritise improvements from a 2 to a 3 grading in **large** departments, rather than try to raise a 3 to a 4, or 4 to 5 in a smaller, but arguably 'better', and in terms of national priorities, more important subject or department.

A third question has to do with the **diminishing** overall impact of the research selectivity exercise consequent upon the larger proportion of funding now being obtained from non UGC sources. Table 1 shows sources of research funding in UK universities in 1982/83 (at 1987/88 prices) and in 1987/88. There is a clear trend for a smaller proportion of such funding to come from the Research Councils and directly from Government, and an increased proportion from industry, charities, overseas and other sources.

Table 1
Sources of research funding

Source	1987/88	1982/83 (at 87/88 prices)
Research Councils	35	45
UK Government	17	20
UK Industry	13	10
UK Charities	21	-
Overseas	8	24
Other	6	-
Total	100 (£m526)	100 (£m329)

Given greater diversity of funding, and the pressures upon universities to obtain the support of local and regional industry, it is possible that a diminishing proportion of overall resource distribution will reflect national quality assessments, and a larger proportion derive from high-margin contract opportunities - local , national and international. In summary, as the importance of UFC funding declines, so does the impact of research selectivity on university policies and intra-institutional resource distribution. A clearly undesirable consequence of the two exercises so far conducted has been the widespread misunderstanding, both at home and abroad, of the significance of the published quality judgements. It has to be remembered that only 7 to 8% of 18-24 year olds in the UK obtain university places. Thus the system **as a whole** is much more selective than in many other countries. Furthermore, the importance of research as a proportion of total university activity is greater in the United Kingdom than in those systems where a larger volume of research is undertaken in independent institutes or otherwise outwith the university. The publication of rankings following the 1985/86 exercise, which showed a significant number of universities as 'below average' was widely resented in the UK , and may well have damaged some institutions' prospects of overseas student recruitment.

Given that the last selectivity exercise cannot easily be dismissed as biased and unsound, that research is ranked and teaching is not, and that research rank is related to standing in the academic community, it is probable that employers, schools and individuals are putting greater emphasis on research performance than hitherto. Industry may be more inclined to approach certain universities for research or consultancy, even when the relevant subject areas are not as outstanding as the perceived rank of the institution overall.

There is no simple relationship between the quality of teaching offered and the quality of research undertaken. This is not simply a matter of high-flying academics neglecting their teaching or delegating work to untried graduate assistants. It is almost certainly the case that some departments which do not rank highly in a research selectivity exercise are capable of, committed to, and successful in offering an educational experience of high quality to their undergraduates.

5. Conclusion

I have focused in this paper on the contextual and institutional aspects of research selectivity, rather than on the rationale, methodology and short-comings of the exercises themselves. I hope I have said enough, however, to make clear that research selectivity is only one aspect of a wide

ranging reform of funding practice. Its impact must be seen in the context of the UFC's new funding regime, as well as of the encouragement that universities are receiving to obtain higher proportions of their funds from non-government sources. I hope these few remarks have added to my hosts' understanding of the impact of the 1989 Research Selectivity Exercise, and will raise some questions which will generate worthwhile discussion.

References

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Appendix 1

(a) Applied Physics

In 1987 the University took the decision to close the department of Physics and to re-establish the department of Applied Physics within the School of Engineering and Computing. The new department has concentrated its research activity on three separate but inter-related areas: the characterisation and physics aspects of low dimensional structures and devices (LDSD), laser devices and applications, and magnetics. Staff, including the appointment of a new Director of the LDSD project and a new professorial appointment, and other resources are concentrated in these research areas which receive substantial SERC and industrial funding.

(b) Chemistry

The School of Chemistry decided, some five years ago to reduce the range of its research activity and concentrate on five priority areas: (1) liquid crystals and organic optoelectronic materials, (2) surface chemistry, (3) analytical chemistry, (4) combustion and laser photochemistry and (5) bacterial chemistry. Expansion of the School as a result of the reallocation of resources following the closure of Geology and the appointment of industrially funded lecturers has allowed the School to add a sixth priority area - inorganic chemistry. A new Professor has just been appointed and equipment and technical support are being provided to allow this area to develop.

(c) Economics and Commerce

The Department of Economics and Commerce became part of the School of Economic and European Studies in 1987, and decided at the same time to make radical changes in its research priorities. Three principal research areas were identified, all in the applied field: Labour Economics, Industrial Economics, and International Economics with special reference to the EEC. Three former research specialisms have been abandoned: Economic Theory, Econometrics and the Economics of Human Resources. Two chair appointments are to be made, one in the institutional economics and one in another area of applied economics, in order to reinforce the development of those aspects of applied economics research which attract substantial external funding.

Appendix 2
The University of Hull
Academic Planning Committee
Recurrent Grant Allocation 1990/91

1. The proposed allocation of recurrent grant to Schools is appended. The overall sums available for departmental grant and vacation grant have been increased to take account of increased student numbers. The main elements in the allocation are teaching, research and vacation grants.

2. **Teaching**

T is 60% of the departmental grant (excluding telephone rentals). This has been distributed on the basis of 1989/90 home/EC student load, excluding ETP, weighted as follows:

Undergraduate	= 1
Taught Masters	= 1.5
Research	= 4

Departments have been weighted by a cost factor:

Arts type	0.5
Intermediate	0.75
Work laboratory experimental science	1.25
Other experimental science and technology	1

The weighting of Computer Science has been increased from 0.75 to 1. The extra cost has been met by an increase in departmental grant from the additional sum provided by the UFC to bring the resourcing of Computer Science to the level of other science subjects.

The weighting of students on year abroad has been increased from 0.167 to 0.25. This is consistent with the UFC's policy on weighting of year abroad students for resource allocations.

3. **Research**

40% of departmental grant has been allocated on research based criteria. The sum allocated for telephones has also been incorporated here since it is related to staff numbers. The elements are:

a) £4.4k has been allocated in recognition of South-East Asian Studies as a national centre (special factors).

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b) 25% of Research Element has been allocated in accordance with research grant expenditure for 1988/89 (R3).

c) Half the remainder has been allocated as a base research allocation in accordance with baseline academic staff plus other long-term funded staff, but excluding those supported from Bishop Grosseteste or overseas student fee income and ETP staff, as there is a separate allocation system for them. The staff are weighted:

Arts type	1
Intermediate	4
Experimental science and engineering	6

The weighting for Computer Science has been increased from 4 to 6. Again the cost has been met from an addition to departmental grant.

A sum for telephones has been allocated on the formula used last year which is based on staff numbers. The telephones allocations have been added to the basic research allocations to give R1.

d) The remainder of departmental grant (R2) has been allocated on the basis of weighted staff numbers as in (c) above but with a further weighting to take into account the recommendations of Research Committee on selective allocation of research funds. The weightings used are:

Departments graded A	5
Departments graded B	3
Departments graded C	1

4. The allocation for vacation grants has been based on historic allocations and has not taken into account changes in student numbers. For 1990/91, a formula has been used which relates vacation grant allocation to student numbers. The formula is based on undergraduate student numbers times a weighting factor. The weighting factors have been determined from the 1989/90 vacation grants allocations divided by the undergraduate numbers used last year. An allocation to Nursing Studies has been added to cover clinical experience costs.

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Appendix 2
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Vacation grants are a significant proportion of overall departmental allocation and merging the grant into T would cause certain difficulties. It is proposed that vacation grants based on the above formula should continue to be identified separately but on the understanding that:

a) departments are free to add to vacation grants but cannot vire from vacation grants into the expenditure heads;
b) the weightings should be reviewed annually taking into account vacation grant spend against allocation in the previous three years;
c) any vacation grant implications of new courses should be drawn to the attention of Academic Planning Committee when outline approval of the course is sought;
d) any major changes in courses with vacation grant implications should be drawn to the attention of Academic Planning Committee;
e) Schools should assess the need for vacation grant expenditure as part of their review of courses and should report explicitly on that to the Board of Undergraduate Studies.