

For the Independent

## **The Best Way to Design a Future RAE for UK Universities**

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On my calculations, the answer is  $v = w(y)c + [1-w(y)]e(j, r, i)$ . The question to which this is the answer: How should the UK government spread around the cash that it gives universities to do research?

Universities mint two kinds of products. One is new graduates; the other is new research ideas. At the moment there is a trenchant debate about how to fund the latter. The Treasury wants to switch to a cheap, mechanical way to check on the quality of universities' research. A fair amount of money will ride on their deliberations. In the current 2008 RAE (research assessment exercise), 8 billion pounds is to be allocated over approximately 6 years.

Virtually all kinds of employees have their job performance scrutinized. There is no reason why universities and university staff should be different. What is unusual, however, is that the product being made in research universities is particularly tricky for most people -- even Treasury mandarins -- to assess. How are you on DNA squiggle bio-algorithms or even Mandarin history in 3000 BC?

Hence the UK has got into the way of setting up, every five or eight years, a set of committees that are all charged, under the title of the Research Assessment Exercise, with fixing a quality label to each department in each university. Some departments are given stars for their quality, and these are much coveted. One reason to make regular assessments is that some university departments grow in strength while others become weaker, and this makes it unfair to set into undue amounts of concrete the chosen flows of money. We have to tilt funding quickly towards the best ideas.

There are two main ways to work out how good the research is from, let us say, the Mathematics Department of the University of Aberdeen (I am afraid I have not checked the data).

First, we can count up the number of journal articles and books being produced by Aberdonian mathematicians. These publications can be read by a peer-review committee of independent academics, who report a judgment of, let us say, A-minus. The government listens to these disinterested experts and posts a cheque to Aberdeen university in lieu of the perceived quality of its maths lecturers and professors. Our nation has relied on such a method for a quarter of a century. The problem is that this system is quite expensive; it uses up a lot of experts' time. It is also seen by some as open to bias and favouritism, although the actual complaints have been minor, as far as I know, inside UK universities. Some argue, too, that this kind of system stifles creativity.

Second, and this is what the government hopes in some form to bring in, we can count up the number of citations to the maths articles and books written in Scotland's Granite City. A citation is a mention in someone else's bibliography. The idea is that if Jock Alexander --- I do hope there is no mathematics professor at Aberdeen called this -- is doing brilliant work on linear algebra then we can detect this by observing that lots of Dr Alexander mentions are to be found in the writings of the global mathematics community.

Although it may displease the Treasury, it seems to me vital to use a mixture of both systems. Citation totals carry valuable information. Yet it is too risky to go over predominantly to a computer count of these citations.

That is where my opening equation comes in (more on which can be found in my article\* last year in *Economica*, and now, forgive me, we see one problem of egotistical self-citations). I believe we need peer review panels to draw upon both their instincts and the data from electronic citations indexes. The longer an article has been in the public domain, the more reliably its quality can be judged by how often people have cited it. That is the symbol 'y' in my formula, which stands for years since publication. Brand new work, however, has to be assessed instead by a peer panel. It has not been around long

enough to let the citations by the academic marketplace tell us its value.

The Treasury may be tetchy about my view. It means we should not attempt to save national money by switching to an RAE where computers do a count of citations. Instead, our country ought to concentrate on where best to scatter those billions and not complain about the millions spent doing the deciding.

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### References

Oswald, Andrew J. "An examination of the reliability of prestigious scholarly journals: Evidence and implications for decision-makers." Economica, 2007, Volume 74, pp. 21-31.