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Rewarding Thinkers

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Truth does not discover itself. If we accept that the discovery of new knowledge is important, then as a nation we must choose how to reward the talented people and teams who can see their way through a blizzard of conventional thinking to the flag of extraordinary new findings. To ensure this, we have to provide incentives and to ensure fairness.

Staff in the United Kingdom's universities are currently getting upset about these things. At stake is enough research cash to make even Bill Gates roll out of bed on a Monday. In 2008 the UK government will choose how to spread 8 billion pounds across the country's universities over a period of six years. Every one of those institutions believes it deserves more than, in sum, is remotely fiscally possible.

Each worker in the UK thereby passes over about 200 pounds of his or her own tax money to give to universities to do research. What is the optimal way to choose how the funds should be spent? One approach is to get experts to sit around a table and let them decide. This is what has been done for 20 years since the first so-called Research Assessment Exercise. We are about to go through another of these, called in the jargon the 2008 RAE. It will again lead to emotional turmoil, and much distraction, inside our institutions of higher education.

However, there is an alternative to peer review. The Labour government has recently caused angst by proposing that we do away with the old approach. Instead, goes their argument, our country could allocate resources by letting a mechanical formula or computer do the deciding. This is often called the 'metrics' method and it comes in two shades. One is: we will give to universities some

multiple of the research money that they raise on their own. By definition, this heaps pounds upon those already well off and profligate. Another is: we will give universities more cash if they produce lots of influential books and journal articles, and, for objectivity, we will get a computer to add all those up. Either way, the advantage over the present system, based on RAE peer review, seems clear. You do not need committees and lots of meetings.

If it were not a great deal of taxpayers' cash at stake, this debate would be fairly dull. However, if a job is worth doing, it is worth doing to the point where you exactly weigh up marginal cost and marginal benefit, as economists say to themselves, as they butter part of the toast.

Some points seem logical. First, it is not desirable to remunerate universities for raising a lot of research cash from somewhere else. We want people to spend as little as possible, and to produce as many good ideas as feasible. Other things held constant, research cash is an input to be ashamed of, not an output to be proud of.

Second, there is a bit of sense to allowing a computer to count a university department's output of journals and citations (which are mentions in journal articles to previous scholars' articles). But anyone who argues we can leave it to an unsupervised computer is mistaken and has not been a British Gas customer.

Third, it would be best to move to a quite different system. We ought to design a framework that rewards our greatest thinkers in a heavily retrospective, and not a largely prospective, way. At the moment, remarkably, UK research funds are handed out by looking at work done over the last small number of years.

Breakthrough ideas cannot be recognized that quickly. Our current RAE system over-rewards the orthodox. Of course the ideas look mildly novel, judged with the 3 years or so of hindsight that is average in the Research Assessment Exercise, but that horizon is too short to allow perspective. What the UK should have is a funding system which channels money to those university departments, whether in history or archaeology or chemistry or poetry, which have been shown years later to have overturned whole ways of thinking. It is

essential we do not discriminate against junior scholars with short CVs, and top departments would, in order to garner the research money of the future, under this system aim to hire the young geniuses who take big intellectual risks.

In short, the next generation of the university Research Assessment Exercise should dole out money by looking far into the past. It ought to blend some peer review, for common sense, with careful computer counts of, particularly, the citations generated by long-published articles. Money today should depend on work done many, many years earlier. Retrospective rewards would let us sort the toffee from the apple.