RESEARCH EVALUATION IN THE UK: Are we getting value for money?

A new study questions the value for money of the mechanism used to evaluate published UK academic research.

Using an algorithm instead of the more expensive peer reviews would have produced a very similar outcome.

The study, which will be presented at the annual congress of the European Economic Association (EEA) in Manchester in August 2019, reports that:

- The evaluation of all the academic research published by UK academics from 2008 to 2013 was evaluated by experts at an overall cost estimated at almost £250 million.

- If the evaluation of the publications had been conducted using the computer algorithm used by the Italian government to assess their universities, it would have produced very similar results.

- This is true for all disciplines but more so for those where the more important results are published in international peer reviewed journals.

The REF involves the peer-review assessment by 36 subject-specific expert panels of the 'reach and significance' of the research conducted in all UK universities.

The cost of the panellists' time was estimated at around £18 million.

The quality of the research carried out by academics, including professors, determines a university's REF results, which are subsequently reflected in levels of government funding.

The agency in charge of the evaluation of the research conducted in Italian universities, ANVUR, has developed an algorithm to assess research conducted by Italian academics departments in the period 2011-2014.

This algorithm assigns a score to every publication, which depends on the prestige of the journal where it was published, and the how many times the paper is cited. Both the prestige and the number of citations are adjusted for the international standard of the scientific discipline.

A research group, led by Professor Daniele Checchi, a council member of the evaluation agency ANVUR and Professor Gianni De Fraja from the School of Economics at the University of Nottingham, assess the papers submitted to the UK REF with the algorithm used in the Italian evaluation exercise.

Professor De Fraja explains: 'If the allocation of the government funding to universities had been carried out using the Italian mechanism to assess the papers submitted by the UK institutions, with the rest of the assessment carried out by peer review, the funding to institutions would have been essentially identical to that obtained in practice through the REF: the overall difference between the two allocation methods would have been less than 0.003%.'

On a subject basis, the funding allocated would have been closer for those disciplines where the highest proportion of papers are published in international peer-reviewed journals, that is mainly the STEM subjects.

Another of the authors of the new study, Dr Irene Mazzotta also of ANVUR, which developed the evaluation procedure, stressed 'the quality of the algorithm constructed by ANVUR, which is shown to match the expert opinion of the academics who were members of the UK REF panels.'

While the study can determine the score that papers submitted to the REF would have obtained had they been assessed with the ANVUR Italian algorithm, it cannot compare the quality of the research conducted in Italian and UK institutions, because of the different components assessed and the different ways in which the aggregate score is determined.

The next evaluation of UK research is to be conducted in 2021, and will continue to assess the published research following a peer review.

Differences in the scores of each department are not systematically related to any specific characteristics of the departments, such as their size, the size of the institution, or whether or not they are in a research-intensive university.

Key findings

- The outcome of the REF peer-review evaluation conducted in 2014 would have been reproduced closely using evaluation algorithm adopted in Italy for the evaluation of the Italian academic research.

- Using an algorithm would have considerably reduced the time panels spend evaluating published papers.

- The algorithm takes into account the prestige of the journal where the paper is published, and the number of citations it has received.

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https://cepr.org/active/publications/discussion_papers/dp.php?dpno=13521&_ga=2.253616714.2144415553.1550656004-371964113.1543678786.

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