



STI 2018 Leiden

*23rd International Conference on Science and Technology Indicators
"Science, Technology and Innovation Indicators in Transition"*

STI 2018 Conference Proceedings

Proceedings of the 23rd International Conference on Science and Technology Indicators

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ISBN: 978-90-9031204-0

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Responses to Output-Based Research Support Scheme in University College Dublin

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Introduction

Performance-based funding systems have been used in many countries. The evaluation of performance can be based on research outputs, peer reviews, and other *ex-post* factors. (Hicks 2012). One of these systems is the Norwegian model, designed by the Ministry of Education and Research in Norway in consultation with the Norwegian Association of Higher Education Institutions (UHR). According to Sivertsen (2016, p. 79), the model involves the following components:

- A complete representation in a national database of structured, verifiable and validated bibliographical records of the peer-reviewed scholarly literature in all areas of research;
- A publication indicator with a system of weights that makes field-specific publishing traditions comparable across fields in the measurement of 'Publication points' at the level of institutions;
- A performance-based funding model which reallocates a small proportion of the annual direct institutional funding according the institutions' shares in the total of Publication points.

It is generally agreed and expected that the number of publication in prestigious channels and their impact will increase. Schneider (2009) has noted that the one of the most novel aspects of the Norwegian model is the construction of a national research documentation system that encompasses all scholarly publications in all disciplines, which has an advantage over commercial indexing systems such as Scopus, while also warns that performance-based funding models could lead to homogenisation of research and rewarding a "one-dimensional concept of research quality" irrespective of its benefits to society (p. 374).

Output-Based Research Support Scheme (OBRSS)

In 2016, University College Dublin in the Republic of Ireland adapted the Norwegian model, and implemented it at *individual* level. The Output-Based Research Support Scheme (OBRSS) rewards individual researchers based on number of publications and doctoral students.

A "ranked publication channel lists" were created for all research areas, including peer-reviewed journals and academic book publishers. Each publication is ranked as level 1 or 2.

The ranking of the journal, conference and book series publication channels is based on an average of six independent ranking schemes:

- The 2016 OBRSS ranking
- Danish BFI 2016-17 Level
- Finnish 2017 Level
- Norwegian 2017 Level
- Recommended Level based on 2017 Source Normalised Impact Factor (SNIP)
- Recommended Level based on 2017 CiteScore

The ranking of the publisher list is based on the average of the following five ranking schemes:

- The 2016 OBRSS Ranking
- Danish BFI 2016-17 Level
- Finish 2017 Level
- Norwegian Level 2017
- Dutch Ceres Codes (A - Highest; E - Lowest)

Publication points are multiplied by 1.25 for international collaboration, and 0.7 if there are two academic staff of the same institution on a publication. The following table summarises the points for different types of publication at ‘normal’ and ‘prestigious’ levels:

| Publication types | Points Level 1 'normal' | Points Level 2 'prestigious' |
|-------------------------------|----------------------------|---------------------------------|
| Book | 5 | 8 |
| Journals Article | 1 | 3 |
| Book Chapter | 1 | 3 |
| Conference Publication | 0.5 | 2 |
| Edited Book | 1 | 3 |
| Other Publication | 0.5 | 2 |
| Published Report | 1 | 3 |

Table 1 Points allocation per publication type

Academic staff are asked to update their publication records in the research management system. As a result, 85% of academic staff updated their profiles. Preliminary points statements are issued in July, when staff have an opportunity to update their publication records and provide feedbacks pertaining to the publication list such as duplicating titles before the final statements released in October.

In “A Bibliometric Model for Performance-based Budgeting of Research Institutions,” it is clearly stated that the Norwegian model is intended for use at aggregated level and not at individual level (UHR, 2004):

“Secondly, but equally important, it must be emphasised that bibliometric statistics can only be used for determining research funding at a macro level. Bibliometric statistics cannot replace or simulate qualitative assessments and evaluations related to funding at other levels” (p. 50)

Sivertsen (2016a) has also stated that local use of the indicator “can be highly problematic, especially if the indicator replaces responsible leadership and human judgement” (p. 87). It has also been argued that the use of indicators in research evaluation would affect production of different kinds of knowledge (Whitley, 2011) and that the indicators can also be used as a

research monitoring device for comparison purposes. Hammarfelt, Nelhans, Eklund, & Åström (2016), for example, state that micro accountability becomes more explicit in systems where funds are allocated on the individual level. Aagaard (2015) has also discussed the use of indicators as a monitoring device by administration and management.

The implication of the adaptation of the Norwegian model at individual level such as OBRSS, however, has not been studied. This study aims to understand the responses of the implementation in University College Dublin, in particular, the perception of transparency and objectivity in its design and implementation, potential changes in publication channels and research practices, and academic culture at large.

Methods

The study consists of three stages:

(1) A questionnaire was disseminated in late October 2017, after the OBRSS points statements (second statement since its implementation) were released. The questionnaire was sent to all academic staff listed in the staff directory via email. Their participation was entirely voluntary and anonymous. The questionnaire was designed to elicit responses in two major areas: (a) evaluation of performance-based funding scheme, and (b) effects on research practices.

- Evaluation of performance-based funding scheme – Questions are designed to understand the degree to which participants agree with the transparency, fairness, and evaluation process of the construction of the ranked publication channel lists and the performance-based funding scheme.
- Effects on research practices – Questions are designed to understand the effects of the performance-based funding scheme, including publication strategies and channels, research agenda, and local and international collaboration.

(2) Semi-structured interviews were conducted with academic staff. The design of the interview protocol was based on the results of the open-ended questions in the questionnaire.

(3) Semi-structured interviews with administrators of OBRSS to gain insights into the objectives and challenges of designing and implementing the Scheme (Ongoing).

Preliminary Findings

The questionnaire was disseminated and concluded within a month time in order to capture the immediate responses after the second release of the points statement. 178 responses (17.75% of population) were received. The following diagrams illustrate the percentage of participants by discipline (Figure 1) and academic title (Figure 2):

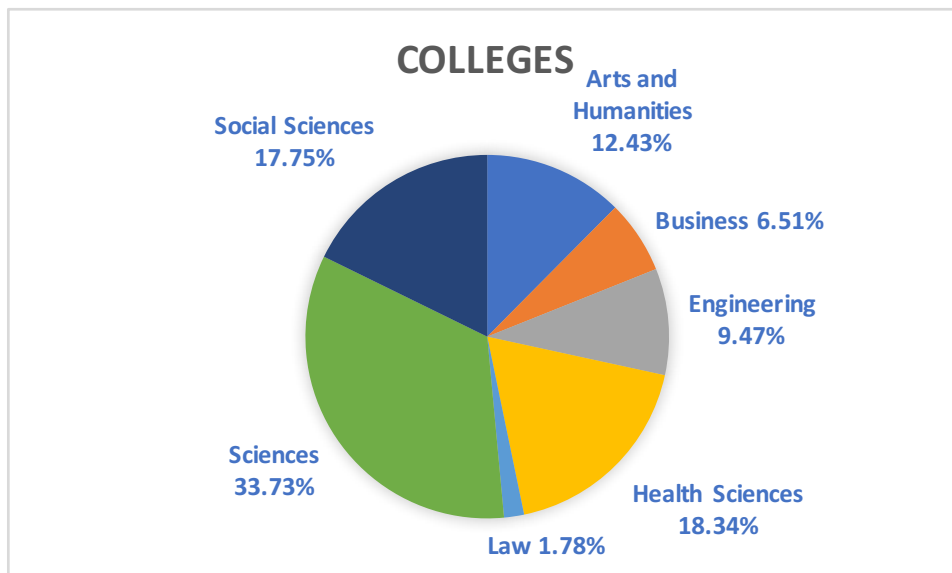


Figure 1 Participants by Discipline (Self-Reported)

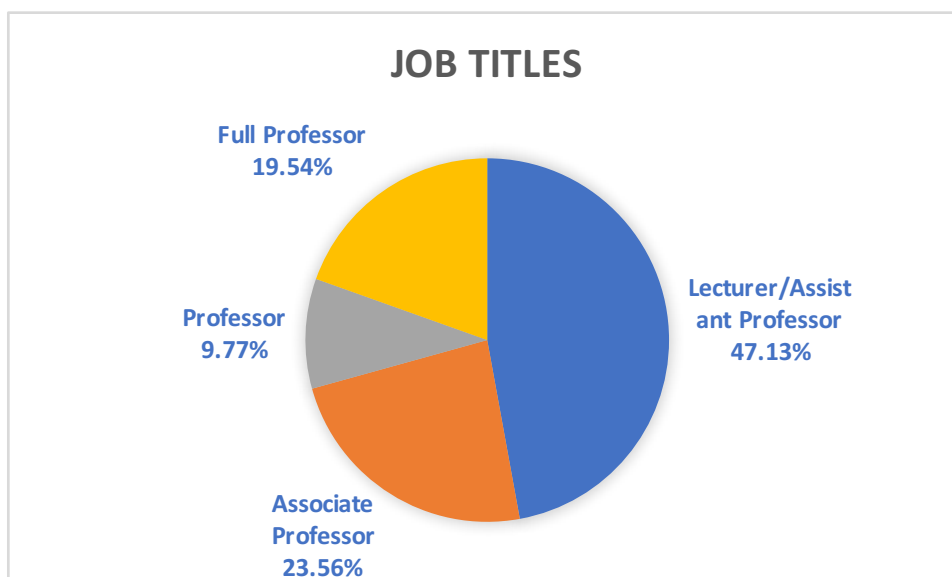


Figure 2 Participants by Job Title

Although the response rate was not satisfactory, the answers to the open-ended questions shed light on the topics and issues of main concern. The topics include, but not limited to:

- Publication list: its comprehensiveness and status ('prestigious' or 'normal')
- Disciplinary practices: the Scheme rewards disciplines that publish more frequently
- Earlier-career researchers: the Scheme rewards established researchers, rather than early-career and other researchers who require more support

A total of 18 semi-structured interviews with academic staff were conducted after the questionnaire. The interviews were 25-55 minutes in length. In the interviews, participants discussed their understanding of the objectives and purposes of OBRSS, the implementation and consultation processes, and their choice of publication channels and related topics. At the time of this writing, the main themes emerging from the interviews are discretionary funding, motivation, and consultation processes.

Discretionary funding

All participants agreed that the award is small but welcomed. Since there is only a small discretionary travel allowance in place, the individual award allows participation in conferences, publishing in open access journals, buying textbooks or small instruments, for example. However, the participants noted that the award is not substantial enough for starting or sustaining research projects, especially in the sciences, that require investment in research infrastructure, as well as recruitment of doctoral students and post-doctoral researchers.

Some participants suggested that the award should not be based on outputs since established researchers, particularly those who have received significant grants would naturally have more publications and hence a higher amount of award. As such, it is unfair to those who need more funding to get started or disseminate their work. Some suggested that the fund should be distributed equally to encourage all types of research.

Although studies have shown that higher level of funding leads to higher productivity and citations-based impact of research at university level, the difference between the method of distribution, for example, equal vs performance-based, is inconclusive (Liefner, 2003). The influences of research income—including research grants, performance/output-based funding and other discretionary funds—on individual researchers require further studies to inform effective allocation of funds.

Motivation

One of the objectives of the Norwegian model is to incentivise publishing in good quality, peer-reviewed journals. The OBRSS adapts the points system as well as the two-tier ranking of scholarly publications ('prestigious' and 'normal') and rewards academic staff with research income. At an individual level, the award is welcomed to support activities with small expenses. The participants perceived the award as a bonus, however they are not driven to publish more because of the award. Some participants suggested that they will not alter their research or publication channels because the award is "puny" compared to research grants, but they are of the opinion that the award could incentivise those who are research inactive to engage in more research activities if the award is not seen as a 'carrot', but rather, a 'stick', that is, as a tool of research evaluation by the university.

Some participants voiced that OBRSS has negative effects on their research activities, mainly because of the 'incompleteness' of the publication list and the disagreements in the ranking of publications. When their publications are not included in the publication list or are ranked 'normal' rather than 'prestigious', they felt that their work is not being recognised by the university and that their voices are not heard. Morale issues were raised, particularly when comparisons were made or used as a performance indicator within a unit. Some participants also thought that OBRSS devalues other academic activities such as mentoring, teaching and engaging with the public.

It will not be easy to single out OBRSS as a factor that contributes to changes in quality and quantity of research outputs. As Aagaard, Bloch & Schneider (2015) suggest, the relationship between research policy and academic performance is limited and inconclusive. Nevertheless, the publication list of OBRSS is seen as a standard of excellence prescribed by the university regardless of its effects on the choice of publication channels and research activities.

Consultation processes

OBRSS is designed and administered by the research administration and is seen by the participants a decision made by the university management for information gathering, research evaluation, research support, and competing in university rankings. There was a consultation process during the construction of the publication list. A master publication list was created primarily based on the Danish list, and other factors such as SNIP, and then circulated to academic staff to make comments and suggestions. Unlike the Norwegian model, external review panels were not used. The publication list is accessible via the research intranet.

Most participants only compared their own publications to the list and made suggestions accordingly. They indicated that the task of reviewing the publication list is ‘impossible’. Many also thought that their suggestions and comments were not taken into account as they didn’t see any changes of the ranking of publications or inclusion of suggested publication channels, nor did they receive a reply or comment regarding to their enquiries or suggestions.

There was no formal discussion of the publication list or the Scheme itself at the School level. Communication was mainly about the inclusion of publication channels and ranking. The interviews with administrators of OBRSS are ongoing at the time of this writing. Findings pertaining to the consultation and other administrative matters will be presented at the conference as appropriate.

Discussion and Conclusion

The implementation of OBRSS will continue in the next year, and likely in the foreseeable future in University College Dublin. This study was conducted right after the points statements were released in the second year of implementation. In a nutshell, the participants appreciated the “no strings attached” research support, largely because there is no discretionary funding for small expenses such as books or textbooks, small instruments, or as one participant said, “an Apple pencil”. They were, however, ambivalent as to whether the funding should be allocated based on research outputs. Some questioned whether other types of outputs, that is, other than publications in peer-reviewed channels and number of doctoral students, should be considered. Participants in senior positions were of the opinion that the fund could be allocated in different ways such as interdisciplinary research grant that aligns with the university strategic plan.

As OBRSS is designed to incentivise high quality publications, this study will be followed by an analysis of research outputs and impact after 5 years of implementation of OBRSS, with the understanding that the relationship between the Scheme and research outputs would not be entirely conclusive and that factors in the research systems should be taken into account.

Notwithstanding the changes in research productivity and impact, the effects of OBRSS in academic culture would require further studies, for example, how does it compare with other countries and institutions where the Norwegian model has been adapted? And, for instance, what are the differences between the implementation of the model for allocating block grant and research funds for individual researchers?

From an institutional perspective, the adaption of the Norwegian model is a step to establish a comprehensive publication records in the university. As of now, there is not a national system recording research outputs in Ireland, nor is there a national evaluation system in place. The

study of OBRSS would give insights into the construction of information infrastructure and the needs for consultation, and not the least, research policy.

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