

Valuing and evaluating diverse researchers' contributions in research institutions

Dr. Meredith T. Niles

Associate Professor, University of Vermont

NATIONAL
ACADEMIES

Sciences
Engineering
Medicine

Acknowledgements



- Juan Pablo Alperin, Simon Fraser University
- Erin McKiernan, Universidad Nacional Autónoma de México
- Lesley A Schimanski
- Esteban Morales
- Diane Dawson
- Michelle La
- Carol Muñoz Nieves
- Lisa Matthias
- Gustavo E Fischman
- Funding from Open Society Foundations (OR2016-29841)

Assessing RPT documents and perceptions

- RPT document collection
 - 864 documents from 129 universities and 381 units in US and Canada
- Online survey of a random sample of faculty (n=338) at 55 of those institutions
- Qualitative and quantitative assessment
- 6 peer-reviewed publications and book chapters 2019-2022

FEATURE ARTICLE

META-RESEARCH

How significant are the public dimensions of faculty work in review, promotion and tenure documents?

Abstract Much of the work done by faculty at both public and private universities is often paid for by public funds; it is often valued, we analyzed review, promotion, and tenure documents from universities in the US and Canada. Terms and concepts related to public dimensions of faculty work are mentioned in a large portion of documents, but mostly in the context of traditional research outputs and citation-based metrics: how faculty work targeted to academics, and often disregarded the public dimensions of their work.

PLOS ONE

FEATURE ARTICLE

META-RESEARCH

Use of the Journal Impact Factor in academic review, promotion, and tenure evaluations

Abstract We analyzed how often and in what ways the Journal Impact Factor (JIF) is currently used in review, promotion, and tenure (RPT) documents of a representative sample of universities from the United States and Canada. 40% of research-intensive institutions and 18% of master's institutions mentioned the JIF, or closely related terms. Of the institutions that mentioned the JIF, 87% supported its use in at least one of their RPT documents, 13% expressed caution about its use, and none heavily criticized it or prohibited its use. Furthermore, 63% of institutions that mentioned the JIF associated the metric with quality, 40% with impact, importance, or significance, and 20% with prestige, reputation, or status. We conclude that use of the JIF is encouraged in RPT evaluations, especially at research-intensive universities, and that there is work to be done to avoid the potential misuse of metrics like the JIF.

DOI: <https://doi.org/10.7554/eLife.47338.001>

ERIN C. MCKIERMAN^{1*}, LESLEY A. SCHIMANSKI², CAROL MUÑOZ NIEVES³, LISA MATTHIAS, MEREDITH T. NILES AND JUAN P. ALPERIN^{1*}

***For correspondence:** emckierman@biochem.umass.edu (EC), juan.alperin@umass.edu (JPA), juan.alperin@umass.edu (JPA).

†These authors contributed equally to this work.

Competing interest: See page 10.

Funding: See page 10.

Reviewing editor: Emma Peewee, eLife, United Kingdom

© Copyright McKiernan et al. This article is distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/) (<https://creativecommons.org/licenses/by/4.0/>).

1 Department of Nutrition and Food Sciences & Food Systems Program, University of Vermont, Burlington, VT, United States of America, **2** Scholarly Communications Lab, Simon Fraser University, Vancouver, Canada, **3** Departamento de Física, Universidad Nacional Autónoma de México, Mexico City, Mexico

*** mtniles@uvm.edu (MTN); juan.alperin@umass.edu (JPA)**

Abstract

Using an online survey of academics at 55 randomly selected institutions across the US and Canada, we explore priorities for publishing decisions and their perceived importance within review, promotion, and tenure (RPT). We find that respondents most value journal readership, while they believe their peers most value prestige and related metrics such as impact factor when submitting their work for publication. Respondents indicated that total number of publications, number of publications per year, and journal name recognition were the most valued factors in RPT. Older and tenured respondents (most likely to serve on RPT committees) were less likely to value journal prestige and metrics for publishing, while untenured respondents were more likely to value these factors. These results suggest disconnects between what academics value versus what they think their peers value, and between the importance of journal prestige and metrics for tenured versus untenured faculty in publishing and RPT perceptions.

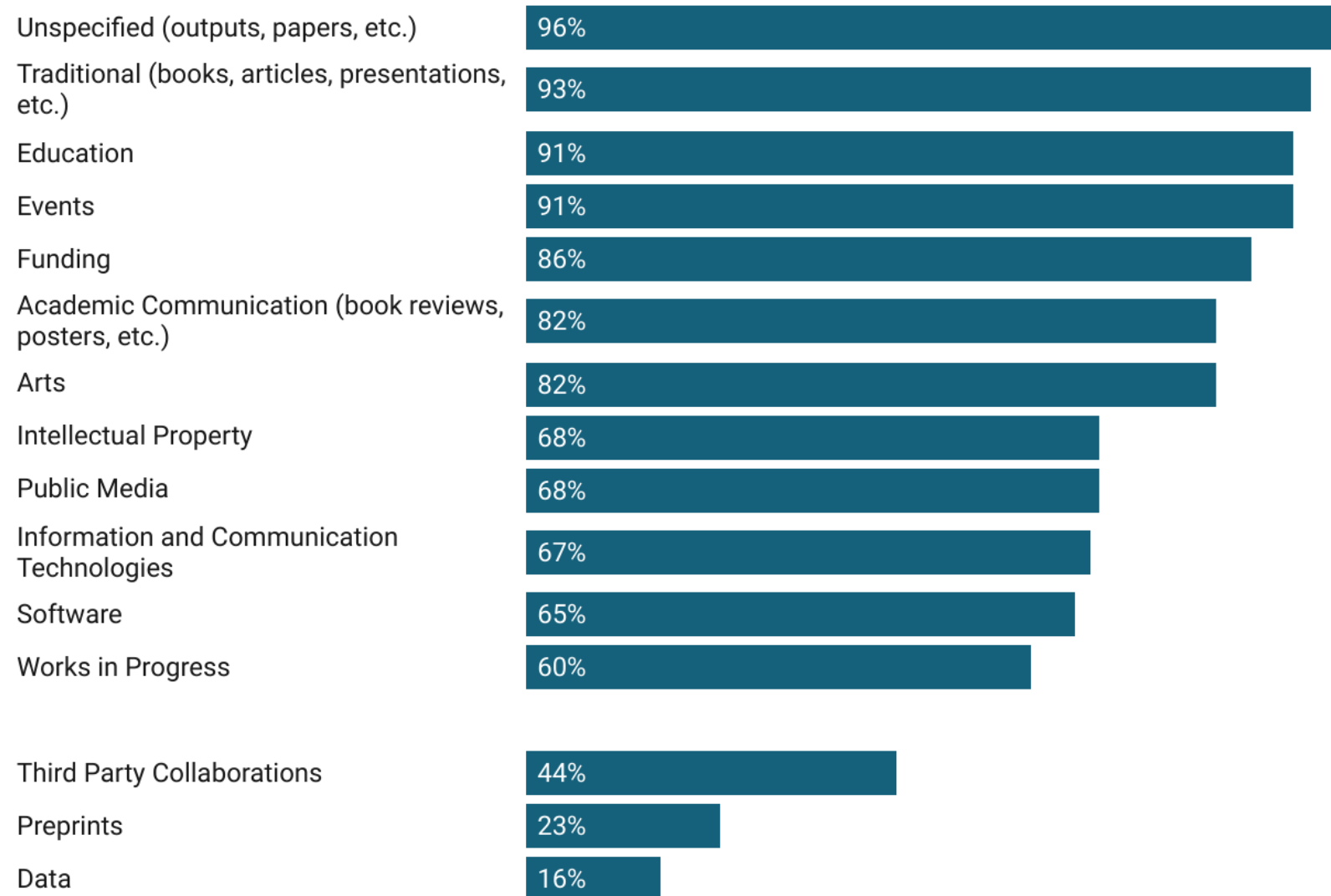
1. Introduction

The Journal Impact Factor (JIF) was originally developed to help libraries make indexing and purchasing decisions for their journal collections (Garfield, 2006; Archambault and Larivière, 2009; Haustein and Larivière, 2015), and the metric's creator, Eugene Garfield, made it clear that the JIF was not appropriate for evaluating individuals or for assessing the significance of individual articles (Garfield, 1963). However, despite this and the various well-documented limitations of the metric (e.g., Seglen, 1997; Moazzami, 2015; Brembs et al., 2012; The PLOS Medicine Editors, 2006; Kurmis, 2003; Sugimoto and Larivière, 2018; Haustein and Larivière, 2015; The Analogue Association between the JIF, journal prestige, and selectivity is strong, and has led academics to covet publications in journals with high JIFs (Harley et al., 2010). Publishers, in turn, promote their JIF to attract academic authors (Hecht et al., 1998; Sugimoto and Larivière, 2018; SpringerNature, 2018). In some academic disciplines, it is considered necessary to have publications in journals with high JIFs to succeed, especially for those on the tenure track (for review see Schimanski and Alperin, 2018). Institutions in some countries financially reward their faculty for publishing in journals with high JIFs (Pryor and Cyprianos, 2006; Chan et al., 2017), demonstrating an extreme but important example of how this met-

Data and other Outputs

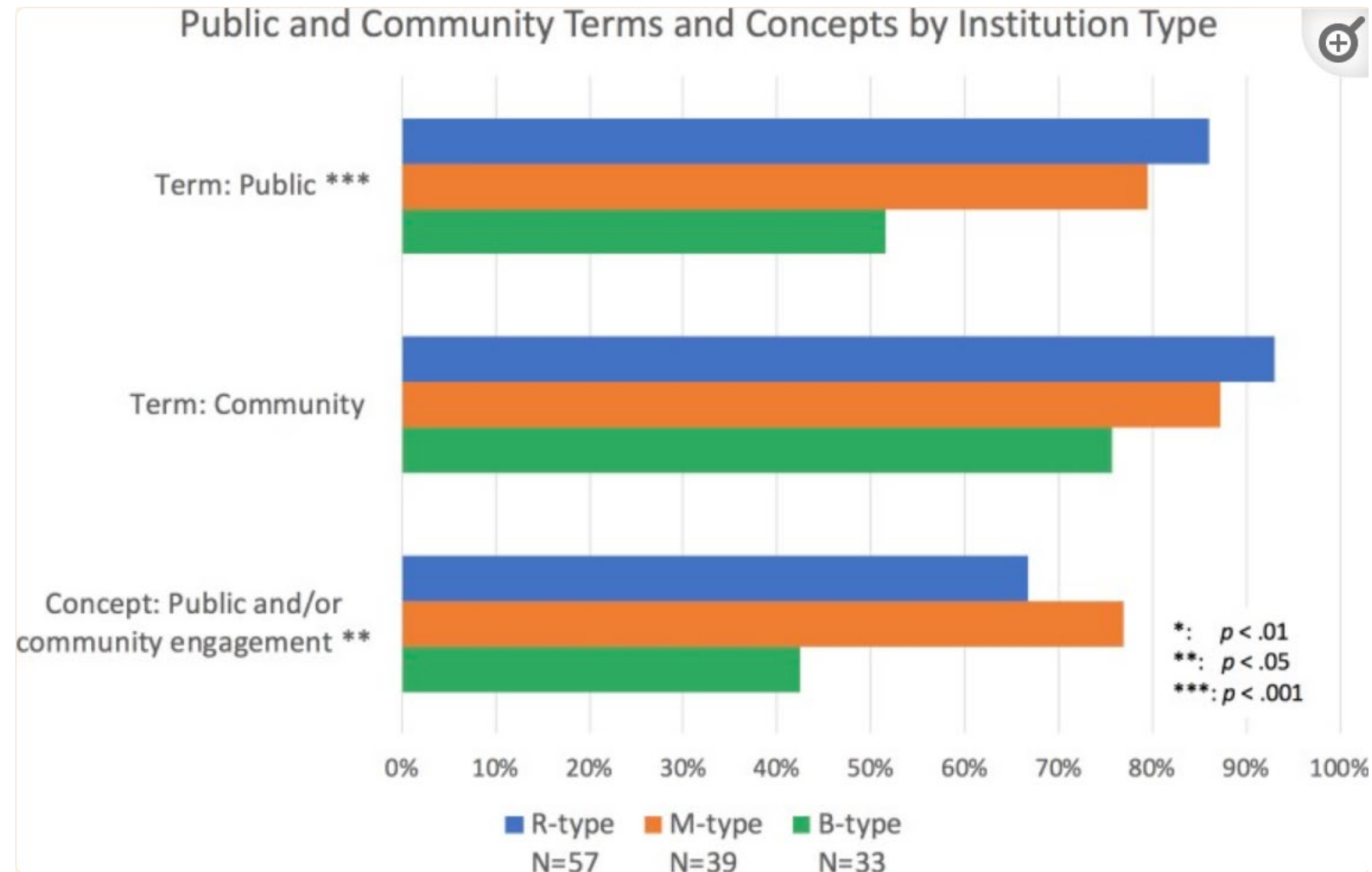
- 127 different outputs grouped in 15 categories
- Diversity of outputs
- However, outside collaboration, pre-prints, and data outputs included by less than half

Percent of Research Institutions Including Output Types in RPT Documents



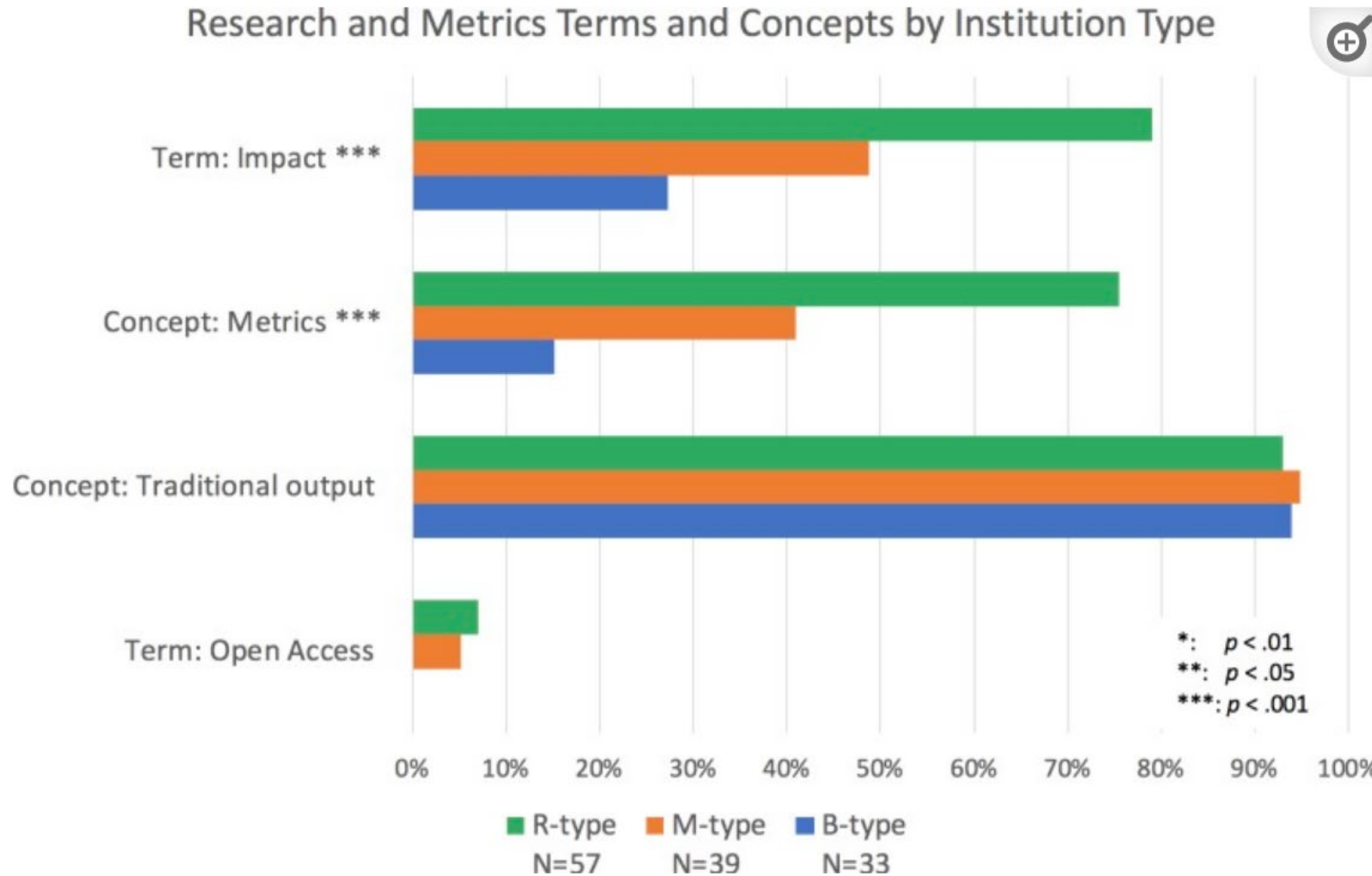
Do we evaluate public and community engagement?

- 75% mention the term "public"
- 87% of institutions mention the term "community"
- Common in research:
 - 64% include at least one mention of "public and/or community engagement in research and scholarship."



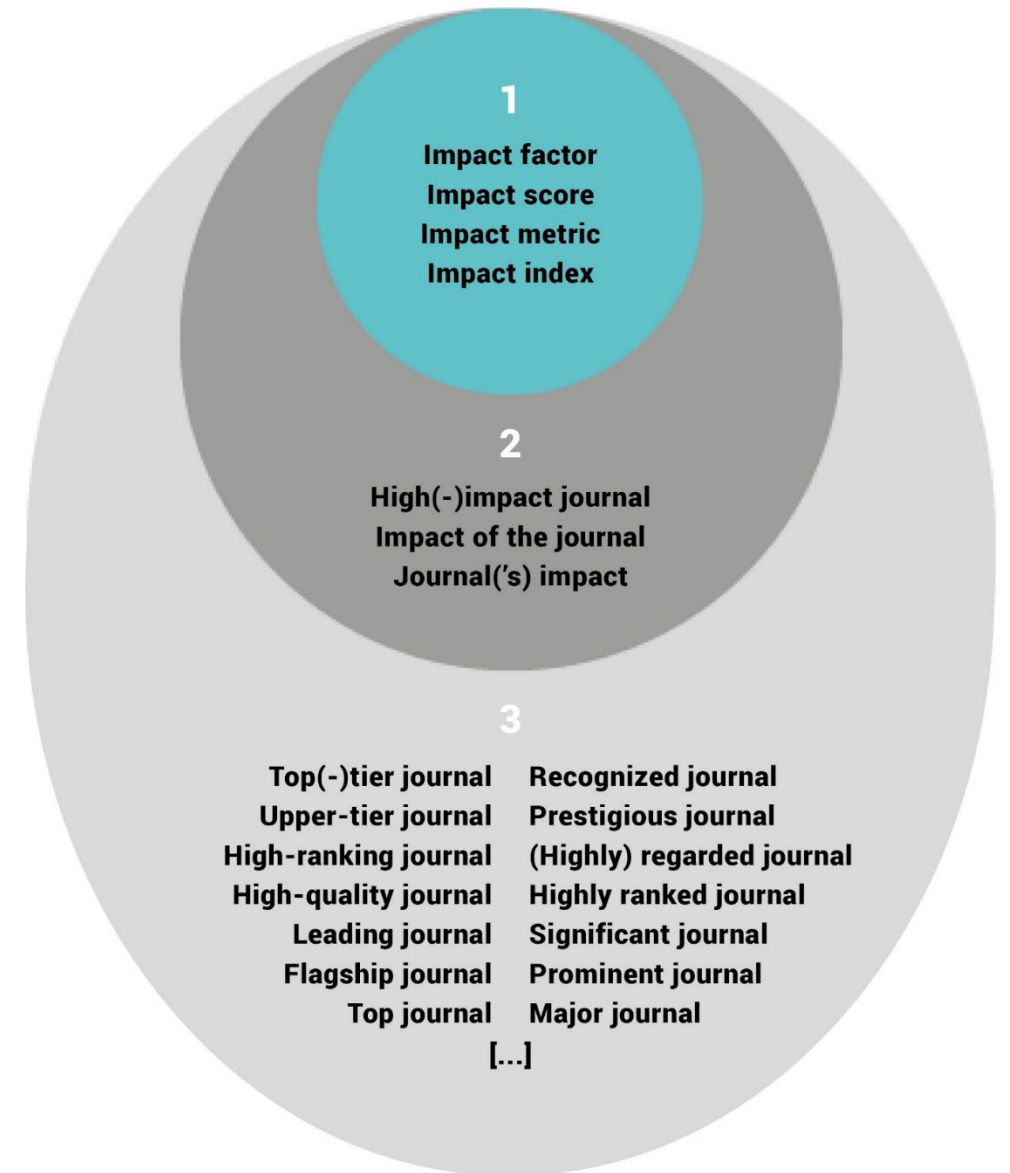
How do we evaluate research?

- Evaluating research is typically done through impact, metrics, and traditional outputs
- Impact related to public dimensions are rare (9% of research institutions)
- Metrics to evaluate publicly engaged academic work rare



Prominent metric- Journal Impact Factor (JIF)

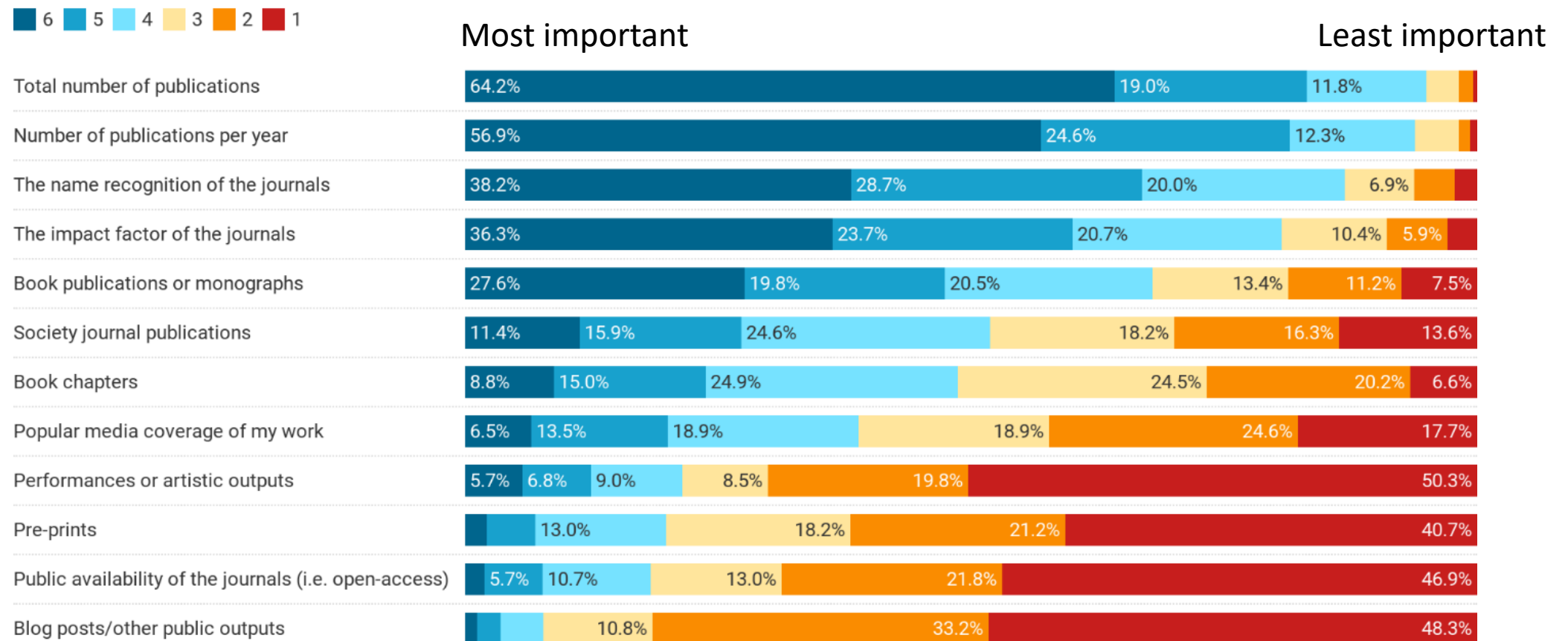
- 40% of research universities mentioned JIF, or closely related terms.
 - 87% supported its use in at least one of their RPT documents
- Used in three ways:
 - Quality (63% of institutions)
 - Impact (40% of institutions)
 - Prestige (20% of institutions)



Terms found in RPT documents related to JIF.
Only rings 1 and 2 were included in our analysis

What do faculty think matters for RPT?

- Most important: Total number of publications, Number of publications per year, Journal name
- Least important: Pre-prints, Open-access, Blogs and public outputs

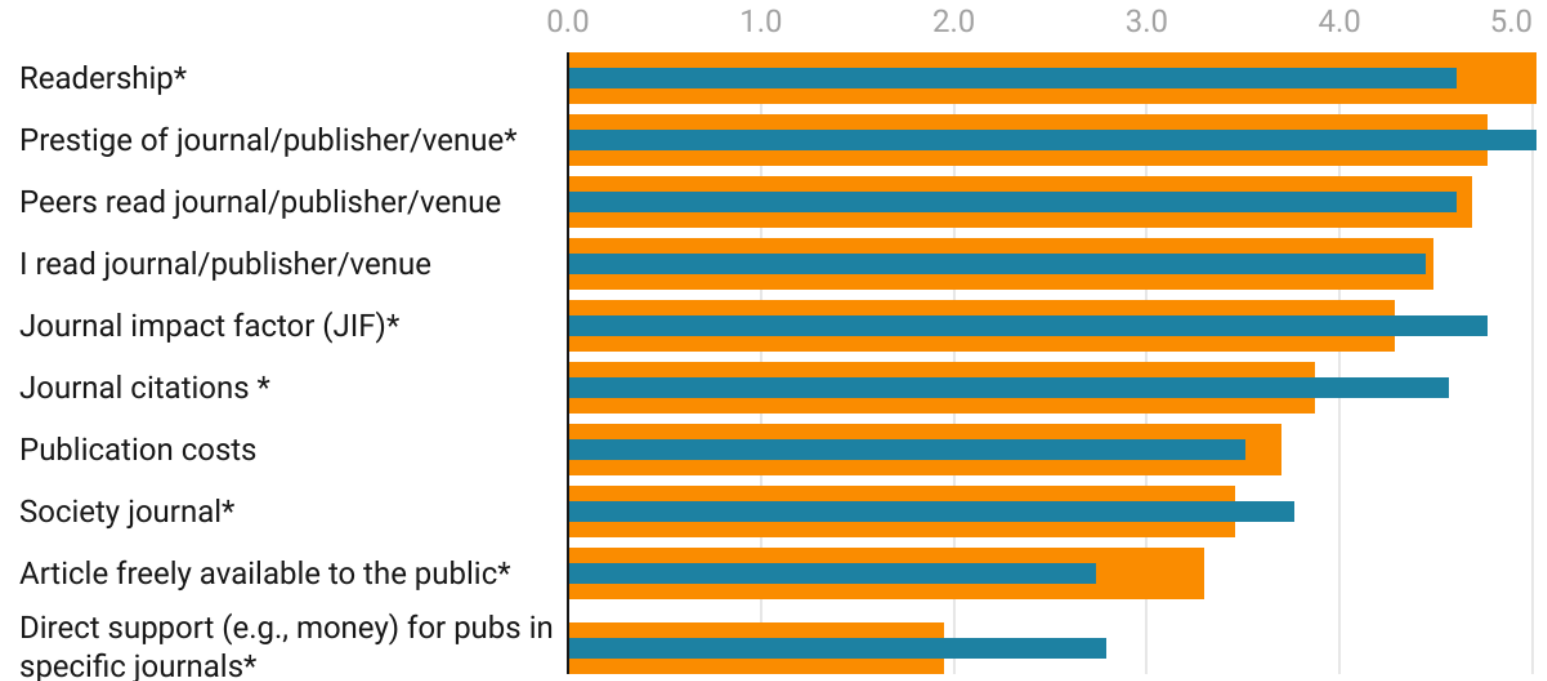


What do faculty care about?

- “We” value readership
- “Others” value prestige and metrics more
- Tenure matters
 - Tenured respondents less likely to value journal prestige and metrics
 - Untenured respondents more likely to value these factors.

Self and Peer Perceptions of Publication Venue Choice

Self Mean Peer's Mean



Key Takeaways

- A variety of outputs and public engagement are mentioned in RPT documents, but data, preprints, and non-academic partnerships are less mentioned.
- How we evaluate these outputs largely remains **traditional**.
- Faculty seem to pick up on this: believe that quantity, prestige, and metrics are most important in an RPT process, despite themselves valuing some other outputs.
- We measure and evaluate traditional things inside academia, and often ignore and don't measure everything else.