

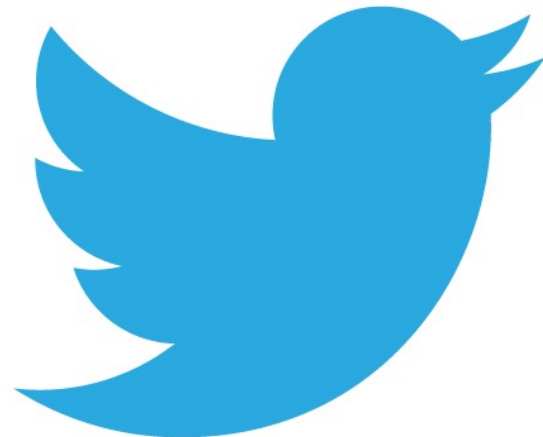
How the Journal Impact Factor is used in review, promotion, and tenure in the United States and Canada



Dra. Erin C. McKiernan
Departamento de Física, Facultad de Ciencias
Universidad Nacional Autónoma de México



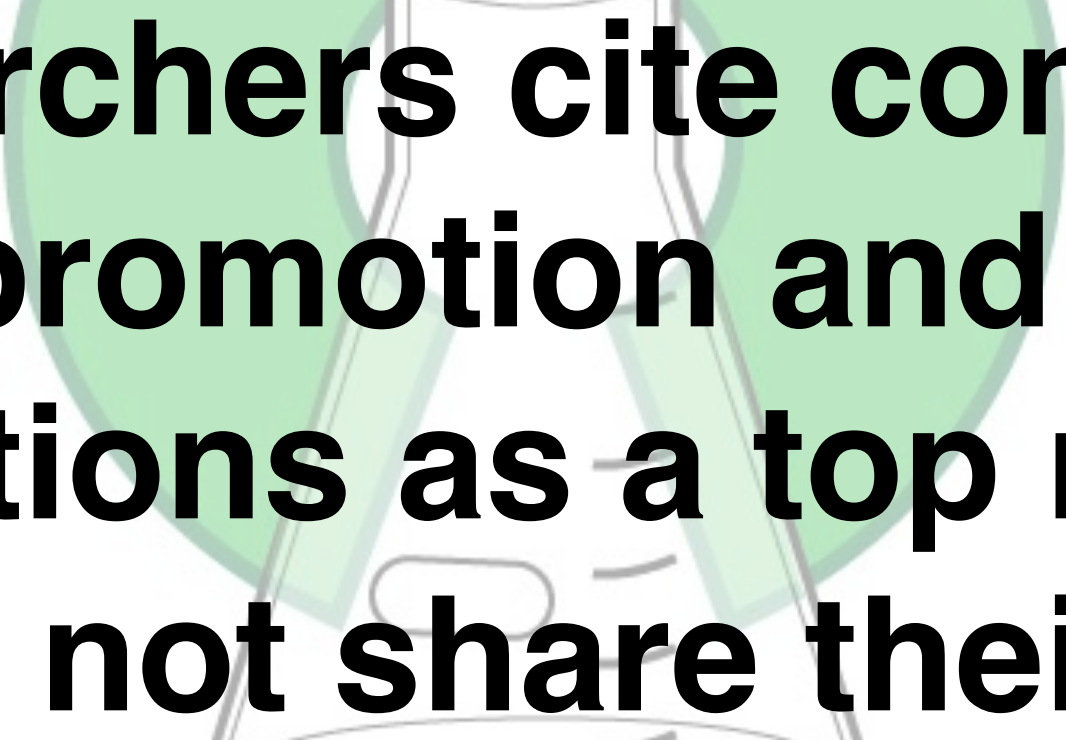
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Promotion and tenure





**Researchers cite concerns
about promotion and tenure
evaluations as a top reason
they do not share their work.**

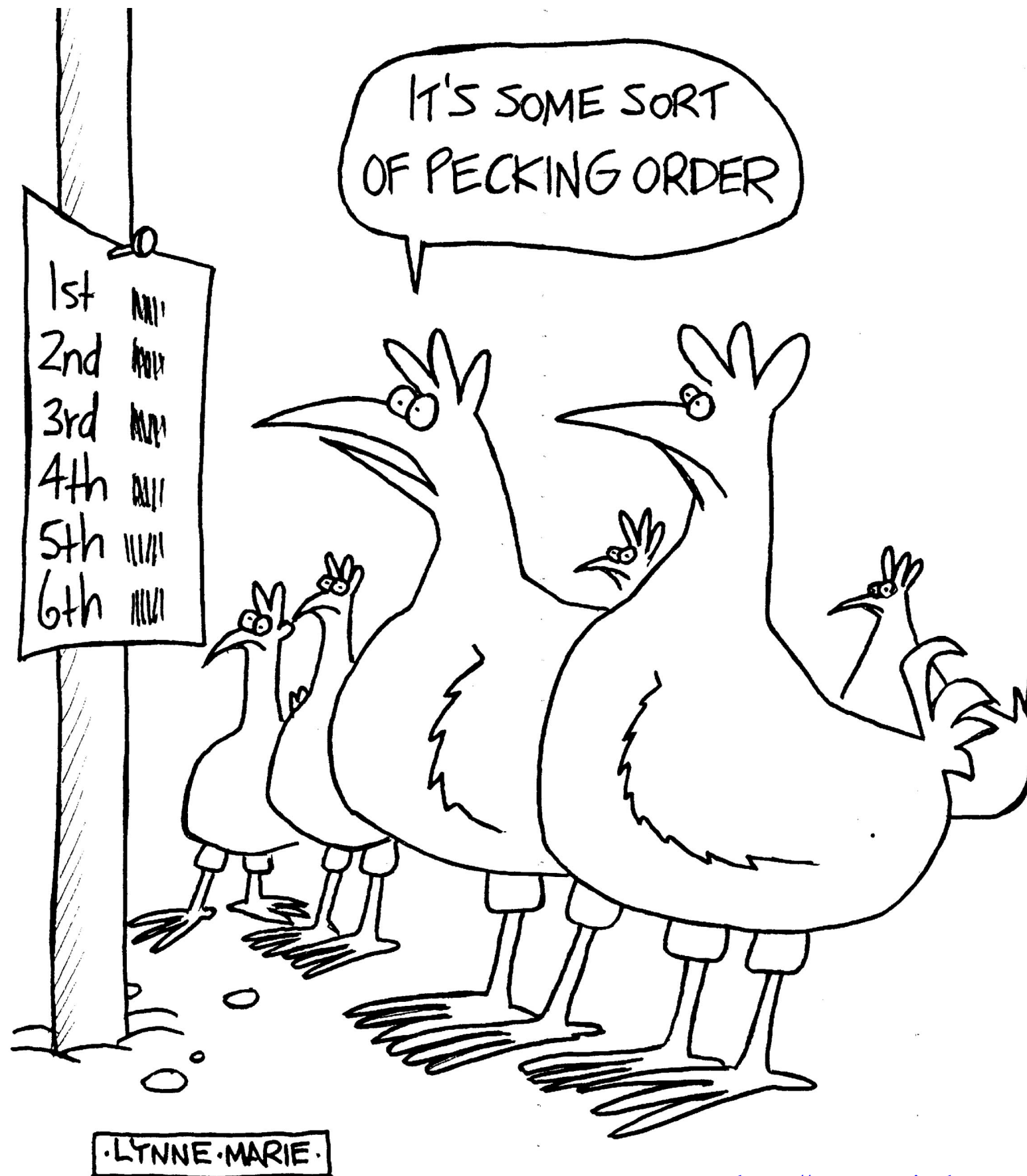
open science



What do universities value?

What do universities reward?

**What counts toward
promotion and tenure?**



Impact factor worship



How often is the JIF mentioned in RPT documents?

Are JIF mentions supportive, cautionary, neutral?

What do RPT documents assume the JIF measures?

Document collection

- **864** RPT documents from **129** universities and **381** academic units (U.S. and Canada)
- universities divided into R-type (**57**), M-type (**39**), and B-type (**33**)
- R-type academic units divided into:
 1. Life Sciences (**33**)
 2. Physical Sciences & Mathematics (**21**)
 3. Social Sciences & Humanities (**39**)
 4. Multidisciplinary (**23**)

Open data for the RPT project



Open Science Collaboration.
2018. "Badges to Acknowledge
Open Practices." OSF.
September 10. osf.io/tvyxz.

Available via Harvard Dataverse
<https://doi.org/10.7910/DVN/VY4TJE>

Terms and grouping

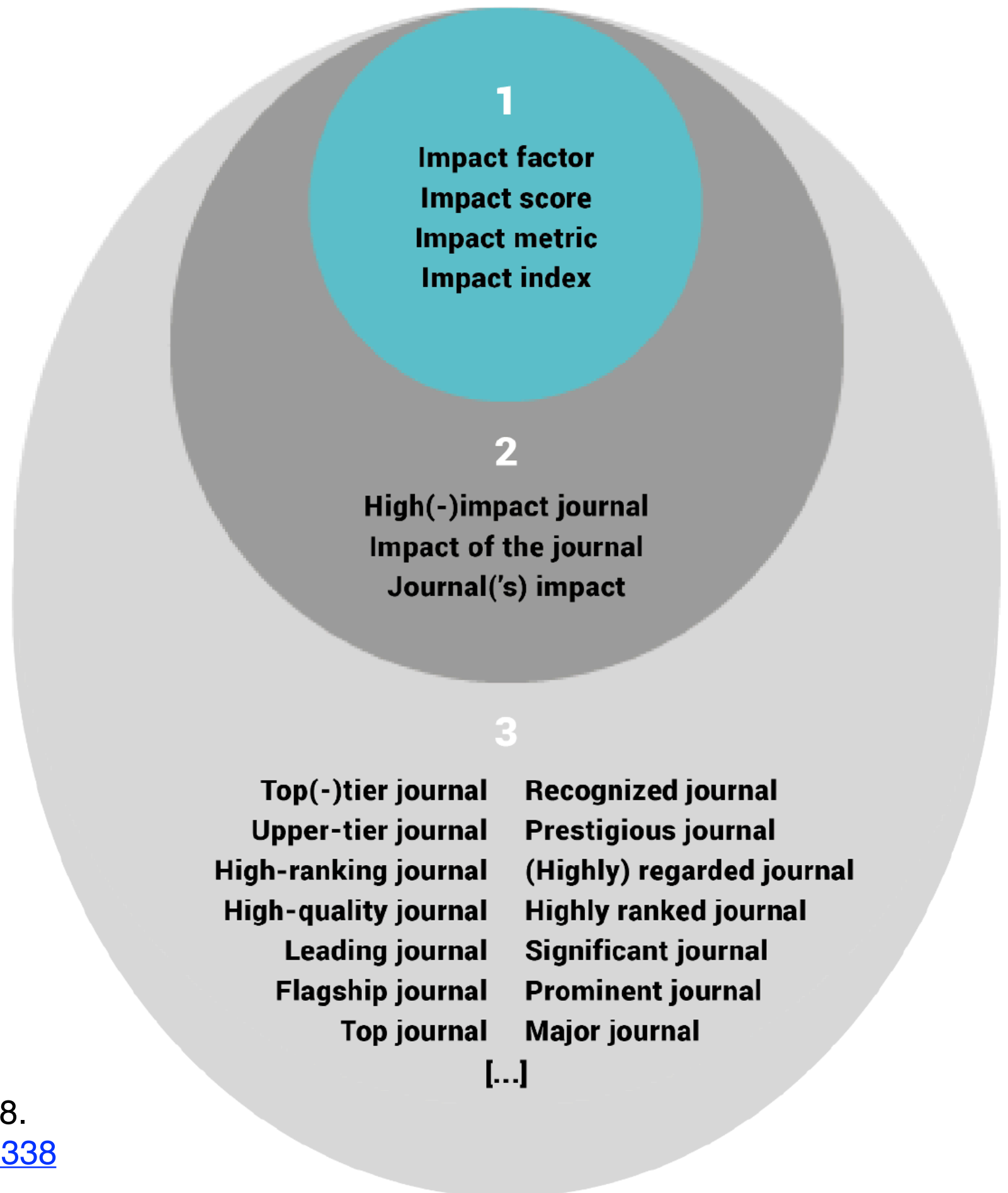
1. referring directly to JIF

2. referring in some way to journal impact

3. indirect but probable references to JIF

*analyzed groups 1 & 2

McKiernan et al. eLife 2019;8:e47338.
DOI: <https://doi.org/10.7554/eLife.47338>



How often is JIF mentioned?

23% of institutions mention
‘impact factor’ or related terms

40% of R-types

18% of M-types

0% of B-types

How often is JIF mentioned?

within R-type academic units:

33% of Life Sciences

29% of Physics & Math

21% of Social Sci & Humanities

17% of Multidisciplinary

Are JIF mentions supportive?

87% of institutions that mentioned the JIF supported its use in evaluations

13% of institutions with mentions expressed caution about using the JIF in evaluations

17% had at least one neutral mention

none heavily criticized JIF or prohibited its use



DORA

no DORA signatories in our sample

no mentions of DORA in the RPT docs

few US or Canadian universities have signed

What is measured with JIF?

JIF often mentioned without additional information on what it is intended to measure (unspecified)

77% of institutions with mentions

74% of R-types

86% of M-types

What is measured with JIF?

most common specified association
was between **JIF** and **quality**

63% of institutions with mentions

61% of R-types

71% of M-types

JIF and quality

“We will employ the metric: **Article Impact Factor (AIF)** = (**JIF** * citations) where “citations” represents the number of citations for the particular publication. Employing this metric, faculty have incentive to publish in the highest **quality** journals (which will increase the **JIF**) and simultaneously produce the highest **quality** research manuscripts, potentially increasing the number of citations, and increasing the AIF.”

Tenure and Promotion Guidelines (2015), Institute of Environmental Sustainability, Loyola University Chicago

What is measured with JIF?

second most common association
was between **JIF** and **impact,**
importance, or significance

40% of institutions with mentions
35% of R-types
57% of M-types

JIF and importance

“Candidates will be encouraged to submit a statement that explains the **importance** of their publications, which may include factors such as **journal impact factors**, citation rates, publication in journals with low acceptance rates, high levels of readership, demonstrated **importance** to their field.”

Working Session on Developing Promotion and Tenure Criteria for
Research (2016), University of Windsor

What is measured with JIF?

third most common association was
between **JIF** and **prestige,**
reputation, or status

20% of institutions

22% of R-types

14% of M-types

JIF and prestige

“Publication in respected, highly cited journals...counts for more than publication in unranked journals. The top journals in sociology and all other social sciences are ranked in the Thompson/ISI citation data base (which generates the well-known Impact Factors)...In general, it behooves faculty to be aware of the prestige rankings of the field’s journals and to publish in the highest-ranked journals possible.”

Department Criteria for Tenure and Promotion (2015), Department of Sociology, College of Science, University of Central Florida

Not all JIF mentions support its use

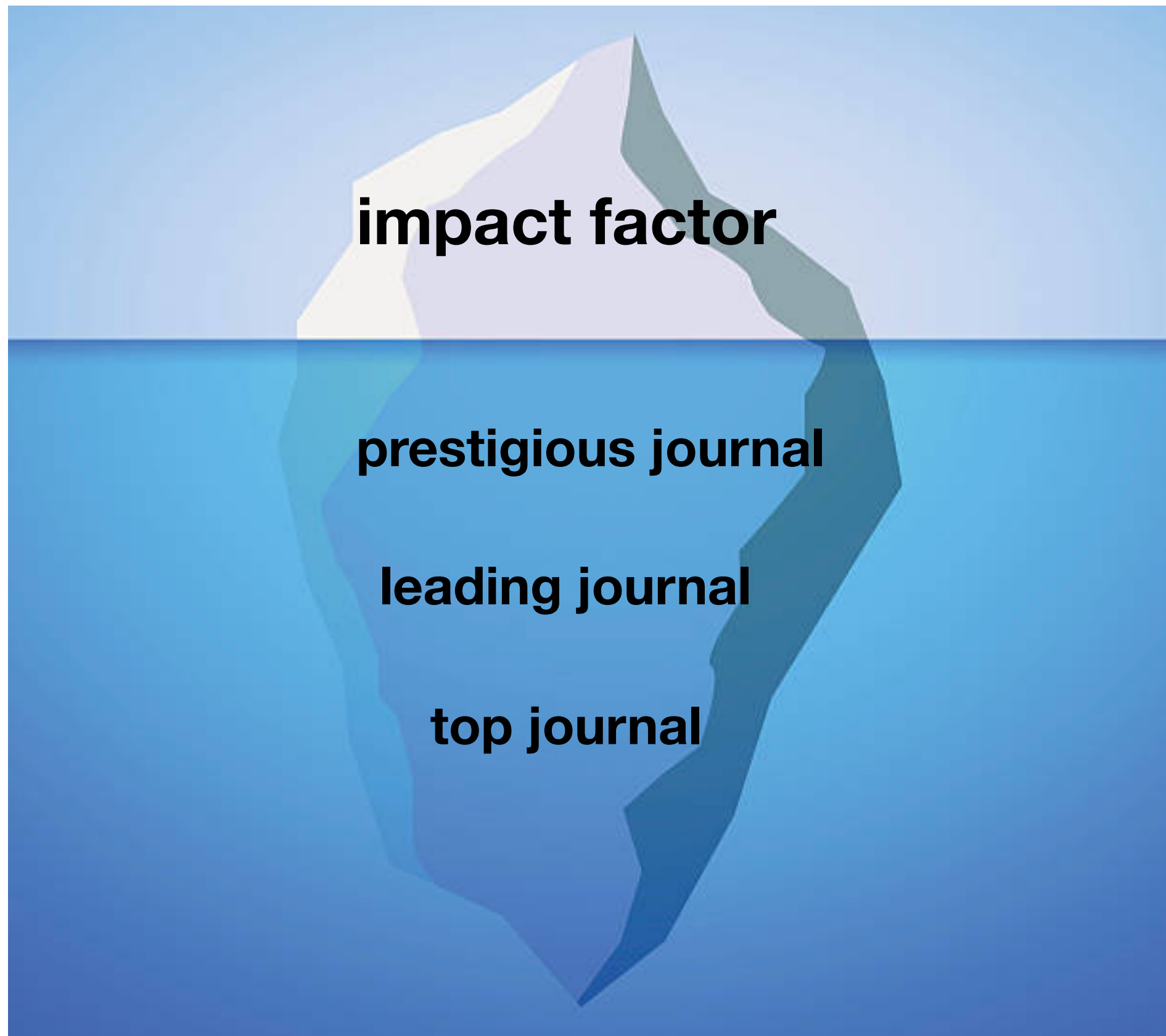
“The reputation and **impact of the journal** or other publication format will be considered, but takes secondary consideration to the quality of the publication and the nature of the contributions. **Impact factors of journals should not be used as the sole or deciding criteria in assessing quality.**

Guidelines for Appointment, Promotion, and Tenure of Academic Staff (2008),
Faculty of Veterinary Medicine, University of Calgary

Conclusions

Our results support the claims of faculty that the **JIF features in evaluations** of their research, though perhaps less prominently than previously thought, at least with respect to formal RPT guidelines.

Are we underestimating JIF use?



Limitations

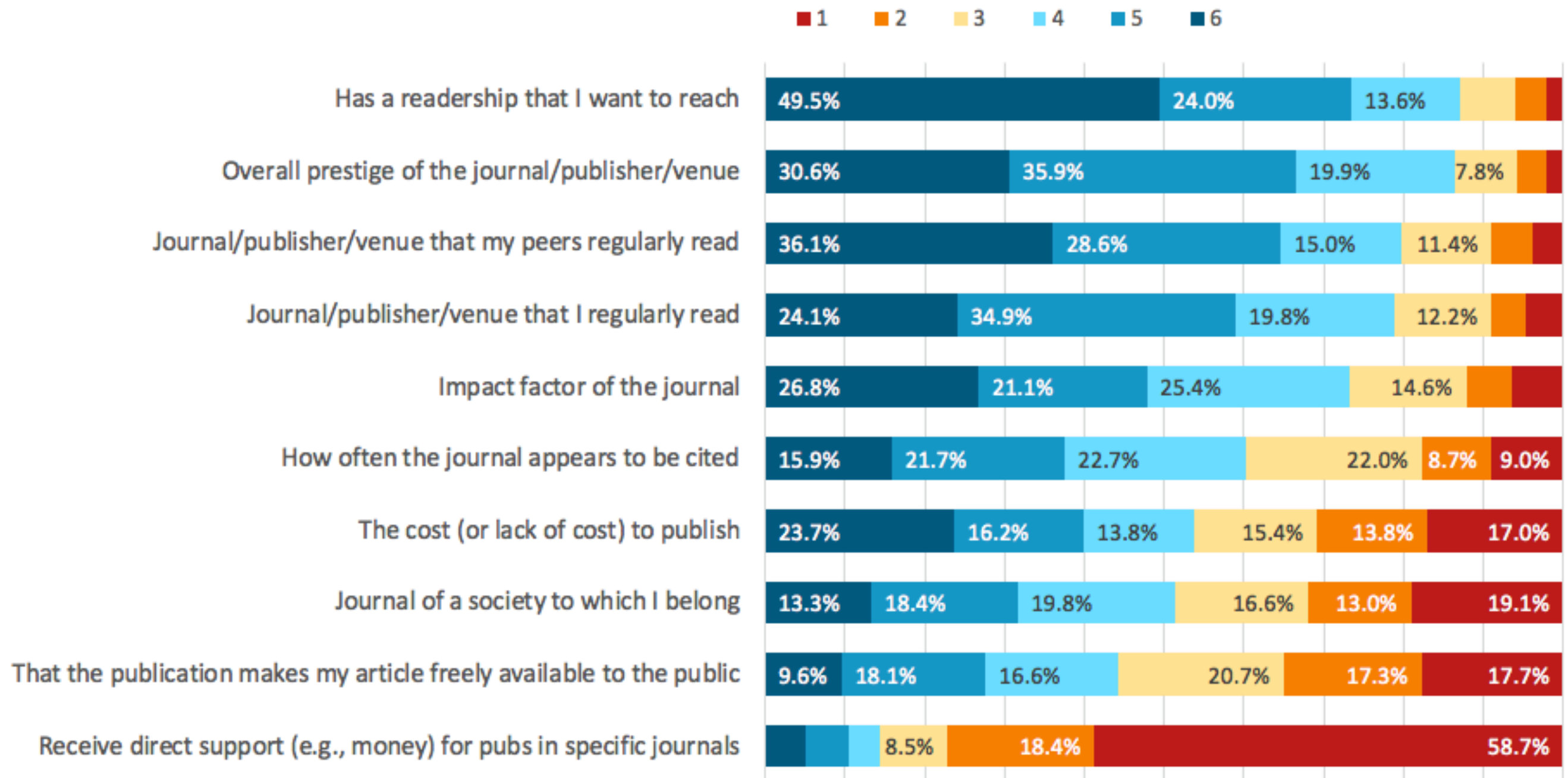
Our analysis does not estimate use of the JIF beyond what is found in formal RPT documents

How are faculty thinking about the JIF?

Do faculty think the JIF plays an important role in RPT evaluations?

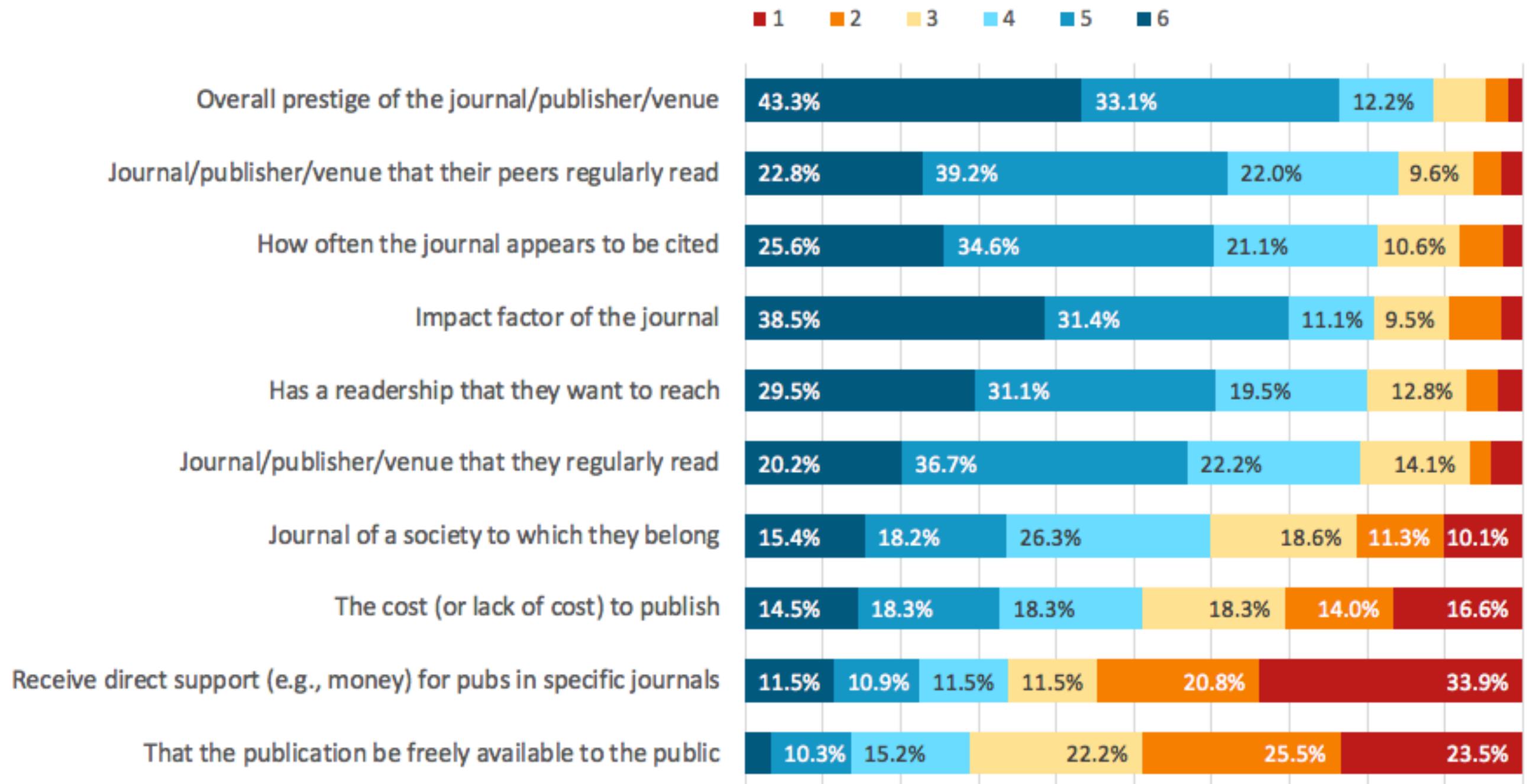
Faculty say most important thing to them is readership

Scale ranges from 1 (not important) to 6 (very important)



Niles, M.T *et al.* (2019). bioRxiv. DOI: <https://doi.org/10.1101/706622>

Faculty think their peers are more concerned with prestige and JIF



Niles, M.T *et al.* (2019). bioRxiv. DOI: <https://doi.org/10.1101/706622>

Conclusions

Our results suggest **disconnects** between what **academics value** versus what they think their **peers value**.

Are we communicating enough about our values as academics?

Conclusions

Our results also raise concerns that the **JIF is being used to evaluate the quality and significance of research**, despite numerous warnings against such use.

“It is curious that we would choose to rely upon such a non-scientific method as the IF to evaluate the quality of our work. More curious is that we would do so as unquestioningly as we have. Why we have done so is not entirely clear. But that we need to stop is.”

Joel A.C. Baum

People

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