

Registered Report Early Adoption: Census of Journal Policies and Open Science Practice



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Introduction



- Registered reports (RR): a form of research article where “in principle acceptance” is based on methods/design instead of results.
- Benefits of registered reports:
 - Increased accountability
 - Boosting the potential for replications
 - Encouraging data sharing and open science practices
 - Reducing the “file drawer issue”
 - Reducing p -hacking and questionable research practices to force significant results
- Goals of the study:
 - What types of journals are implementing RRs?
 - Which research practices are emphasized in guidelines?
 - What specific RR policies are they implementing?

Methodology

- Collecting a census on all existing Registered Reports (143 total journals)
- Two coders double coding and cross checking
- Approximately 20 variables in 3 categories:
 - 1) General Journal characteristics (Ex.- Impact factor)
 - 2) Open Science policies (Ex.- Access to data)
 - 3) Registered Report specific policies (Ex.- Secondary data analysis policy)
- Data was analyzed in an exploratory way, driven by initial findings. Some potential analyses, before data collection, included:
 - Looking at impact factor in relation to journal guidelines
 - Comparing journals from different disciplines in terms of their guidelines

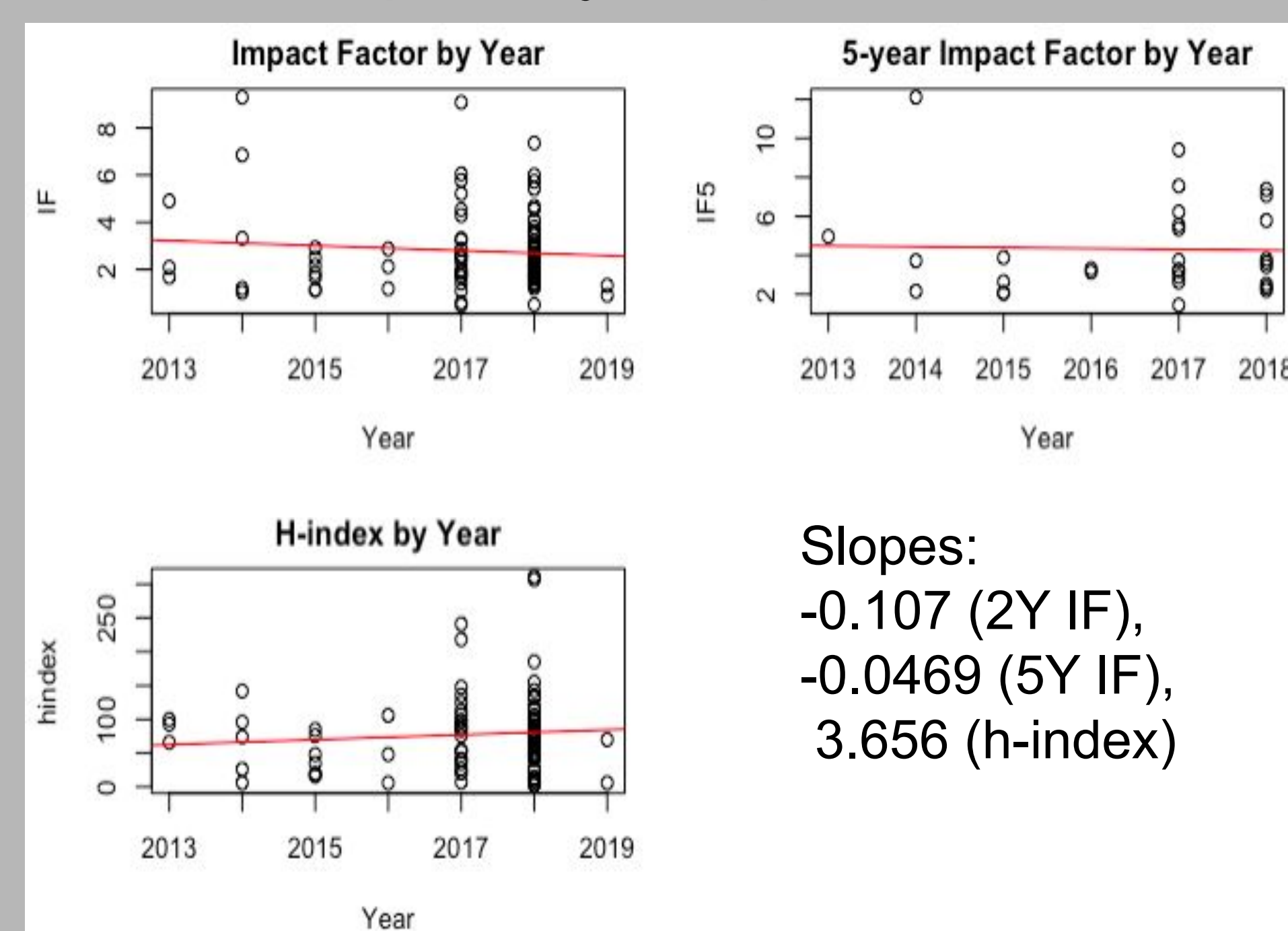
Rates of Open Science Research Practice Policies for Registered Reports

| | Required | Encouraged |
|--------------------------|----------|------------|
| External Preregistration | 71 (50%) | 10 (7%) |
| Access to Data | 90 (62%) | 43 (30%) |
| Access to Materials | 73 (51%) | 47 (33%) |
| Power > 0.8 | 64 (45%) | N/A |
| Replications | 9 (6%) | 79 (55%) |

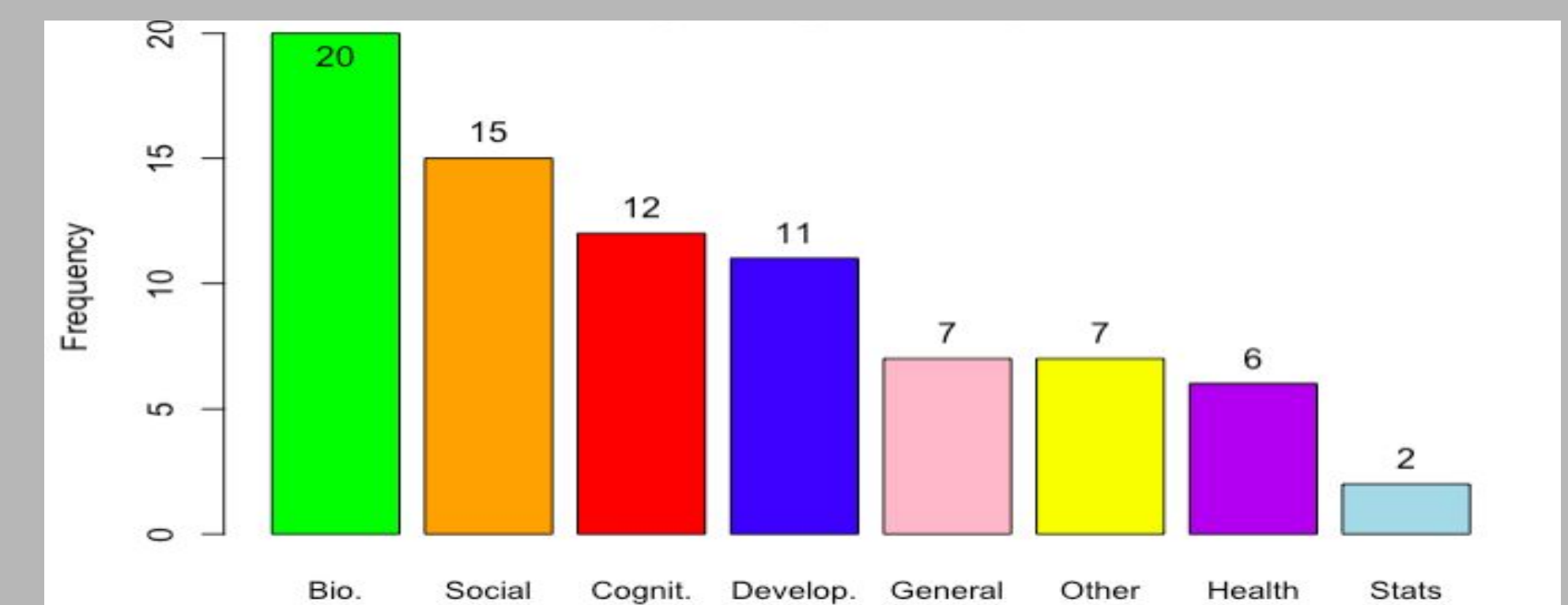
Results

- Many journals require / encourage Open Science / Ethical Research practices (See table above)
- Psychological disciplines have differing numbers of journals offering Registered Reports (See graph top right)
- Impact factor (measured with 2017 IF, 5-year IF, or H-index) did not increase with year (See graphs below)
- We busted some common myths about Registered Reports, showing that Registered Reports do allow:
 - Exploratory analyses
 - Preliminary data / pilot studies
 - Secondary data analysis

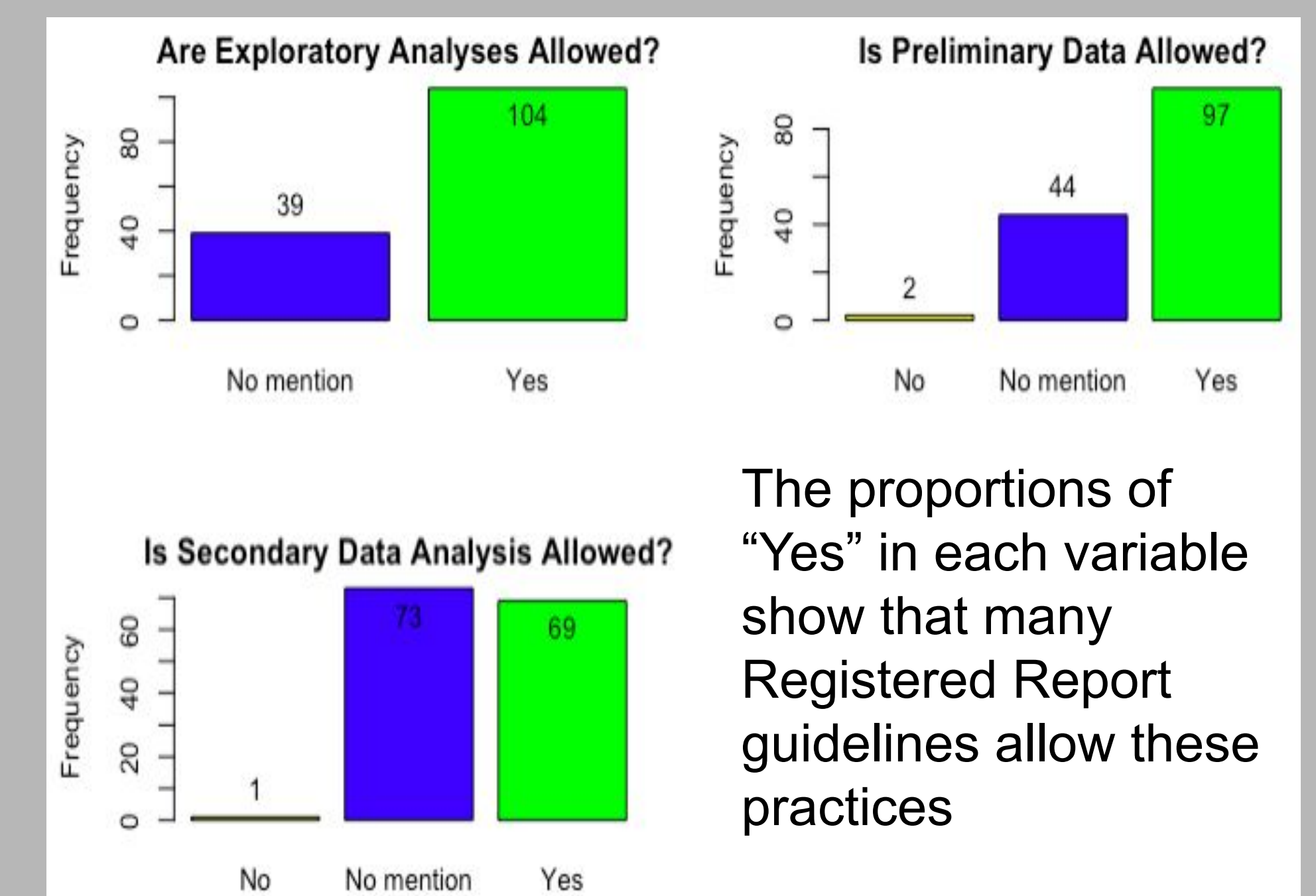
Impact by Adoption Year



Registered Reports by Discipline



Busting Myths About Registered Reports



Conclusion

- Common myths about Registered Reports are largely unfounded. Researchers can use secondary data, conduct exploratory analyses, and run initial studies.
- The fact that the average impact factor for Registered Reports has not changed since its conception, suggests that the adoption of Registered Reports is not associated with the prestige of a journal, and it is other factors that determine adoption.
- Future studies:
 - Will focus on authors’ experience of RR
 - Together, these two study “stages” will give a more complete picture of Registered Reports, their benefits and boundaries.

References

- Chambers, C. D. (2013). Registered report: A new publishing initiative at Cortex. *Cortex*, 49, 609 - 610.
- Nosek, B. A., and Lakens, D. (2014). Registered reports: A method to increase the credibility of published results. *Social Psychology*, 45(3), 137 - 141.
- “Registered Reports.” *Registered Reports*, Center for Open Science, cos.io/rr/.