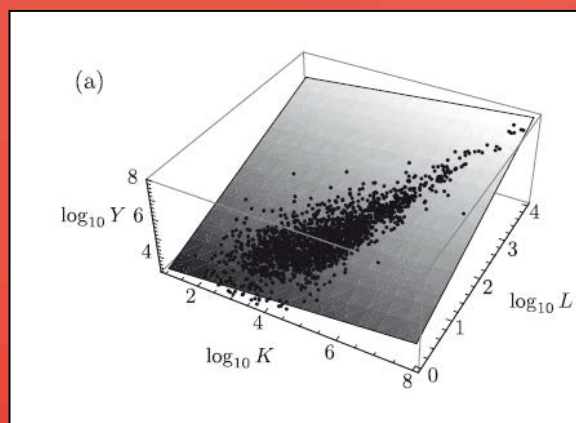


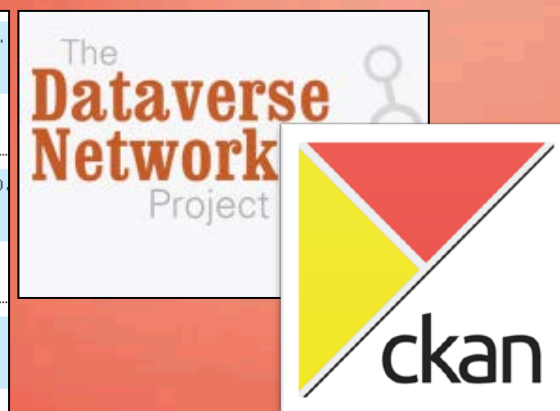
Data policies and data archives: A new paradigm for academic publishing in economic sciences?



Source: Economics-EJournal

<p>The Welfare Effects of Bundling in Multichannel Television Markets (pp. 643-85) Gregory S. Crawford and Ali Yurukoglu</p> <p>Abstract/Tools Full-Text Article Download Data Set Online Appendix</p>
<p>The Use of Full-Line Forcing Contracts in the Video Rental Industry (pp. 686-719) Katherine Ho, Justin Ho and Julie Holland Mortimer</p> <p>Abstract/Tools Full-Text Article Download Data Set Online Appendix</p>
<p>Slow to Anger and Fast to Forgive: Cooperation in an Uncertain World (pp. 720-49) Drew Fudenberg, David G. Rand and Anna Dreber</p> <p>Abstract/Tools Full-Text Article Download Data Set Online Appendix</p>

Source: American Economic Review



Source: Dataverse-Network / ckan..org

Sven Vlaeminck | Leibniz Information Centre for Economics (ZBW)
2015/9/2 | 19th International Conference on Electronic Publishing (ELPUB 2015) | Valletta | Malta

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EDaWaX
European Data Watch Extended

Max Planck Institute for
Innovation and Competition



DIW **SOEP** **RatSWD**

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1. Introduction & Motivation

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Changing patterns in economic research

- > Hamermesh analysed 748 articles in economic top journals (published between 1963 and 2011).
- > He found significant changes in the methodology used by researchers:
 - Studies based on borrowed and own data sets, experimental approaches and simulations comprise roughly 80% of all surveyed articles in 2011.*
 - In 1963 this percentage was below 50%.*

* D.S. Hamermesh (2012), Six Decades of Top Economics Publishing: Who and How?
National Bureau of Economic Research, Working Paper 18635

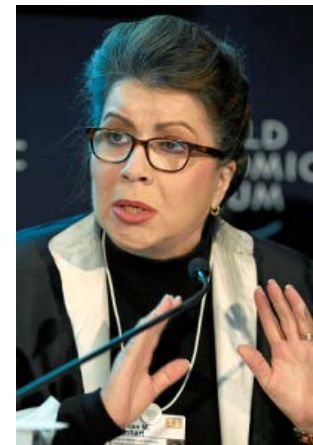
Challenges in empirically-based research

- > 2010: The US top economists Rogoff & Reinhart published a paper on the relation of public debt and economic growth.
- > 2012/2013: EU-Monetary Affairs Commissioner Rehn and US vice presidential candidate Ryan used the results of Reinhart & Rogoff to justify austerity policy.
- > 2013: A student found multiple failures in the calculations and selectively omitted data.

⊗ Strong doubts about Rogoff's & Reinhart's findings



"Dr. Kenneth Rogoff at a Canada 2020 Luncheon" by [canada.2020/flickr.com](https://www.flickr.com/photos/canada.2020/)



"Carmen M. Reinhart - World Economic Forum Annual Meeting 2011" by World Economic Forum/flickr.com

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How do journals in economic sciences react to these challenges?

- > Do we find a large number of journals equipped with suitable data policies?
- > And how are these policies structured? What type of replication files and supplemental information do they request?
- > Do these data policies really foster replicable research?
- > Can we even speak of a new paradigm for publishing in economic sciences?

2. The Study

- > 2.1 Approach & methodology
- > 2.2 Some characteristics of our research sample

Approach & methodology:

- > Creation of a research sample based on two list of journals provided by German learned societies (in economics & business studies).
- > We carefully checked the webpage(s) of each journal to determine whether it has a data policy or not.
- > We analysed the specifications of each policy we found.
- > We compared the specifications of each policy to some requirements for reproducible research*

* G. King (1995), Replication, replication. *Ps: Political Science and Politics* 28: 443–499.

* B.D. McCullough, K.A. McGeary & T.D. Harrison (2008), Do economics journal archives promote replicable research? *Canadian Journal of Economics* **41**, 1406–1420.

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What we checked

- > What do authors have to provide to satisfy the policy?
 - dataset(s) employed?
 - code of computation (syntax)?
 - self-compiled software components?
 - descriptions of the data (data dictionary/codebook)?
 - > Is the policy mandatory?
 - > Who is responsible to provide the data (author/ journal?)
 - > When do authors have to submit their replication data?
 - > Does the policy have a procedure to foster replication for proprietary/confidential datasets?
 - > ...
-

2. The Study

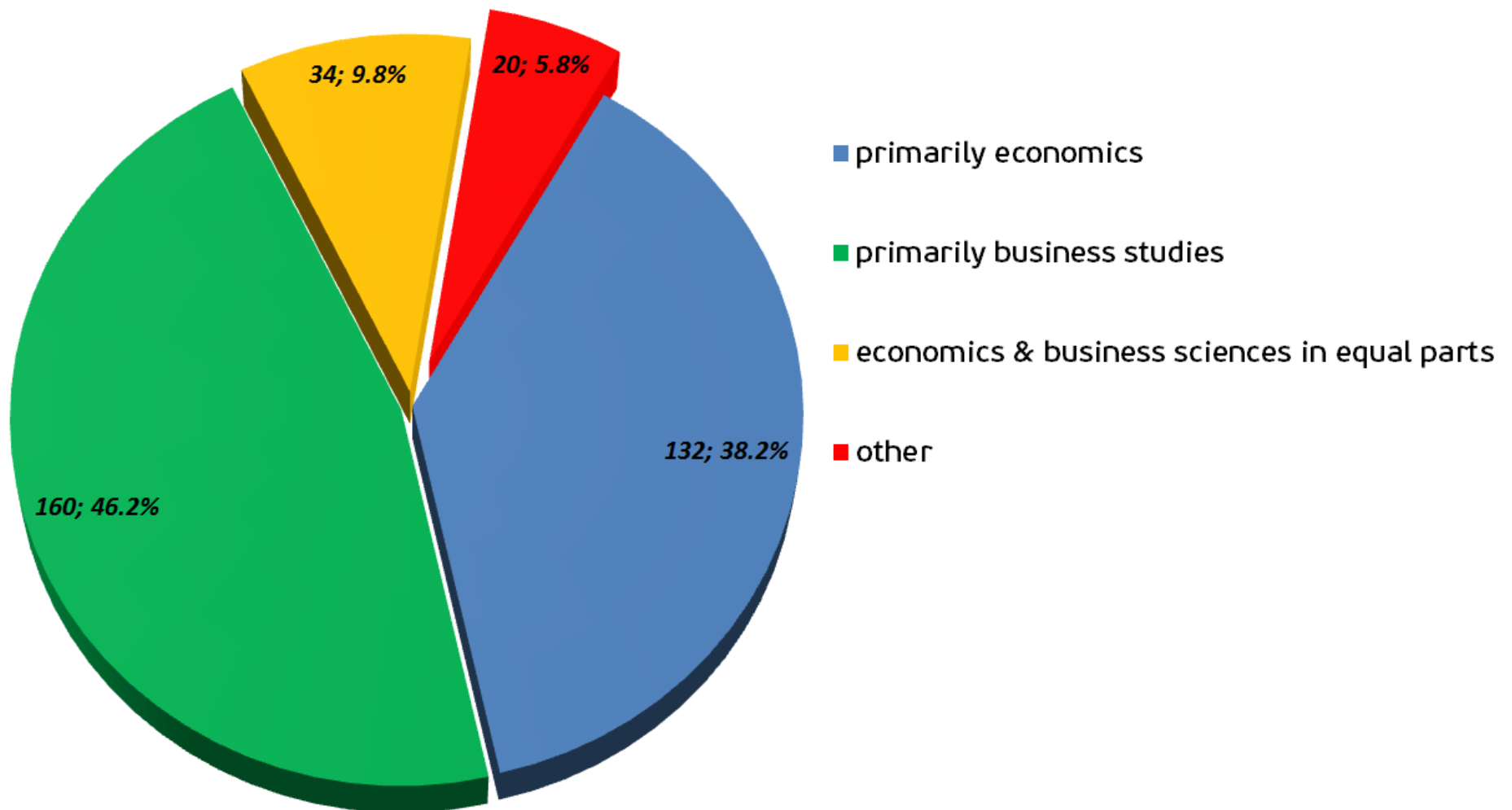
- > 2.1 Approach & methodology
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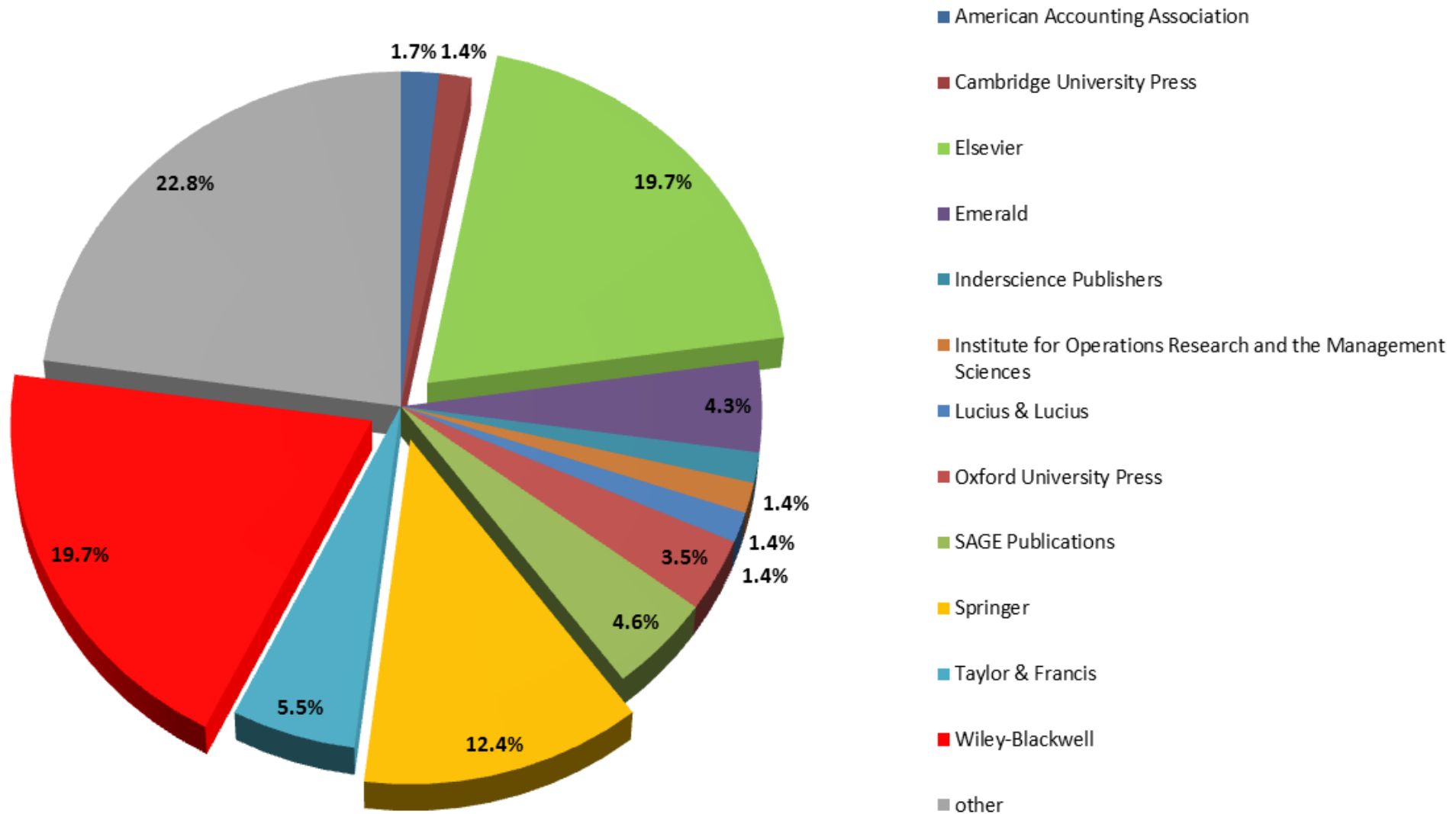


Primary subject area (n=346)

Primary Subject Area of Journals in our Sample
(n=346)

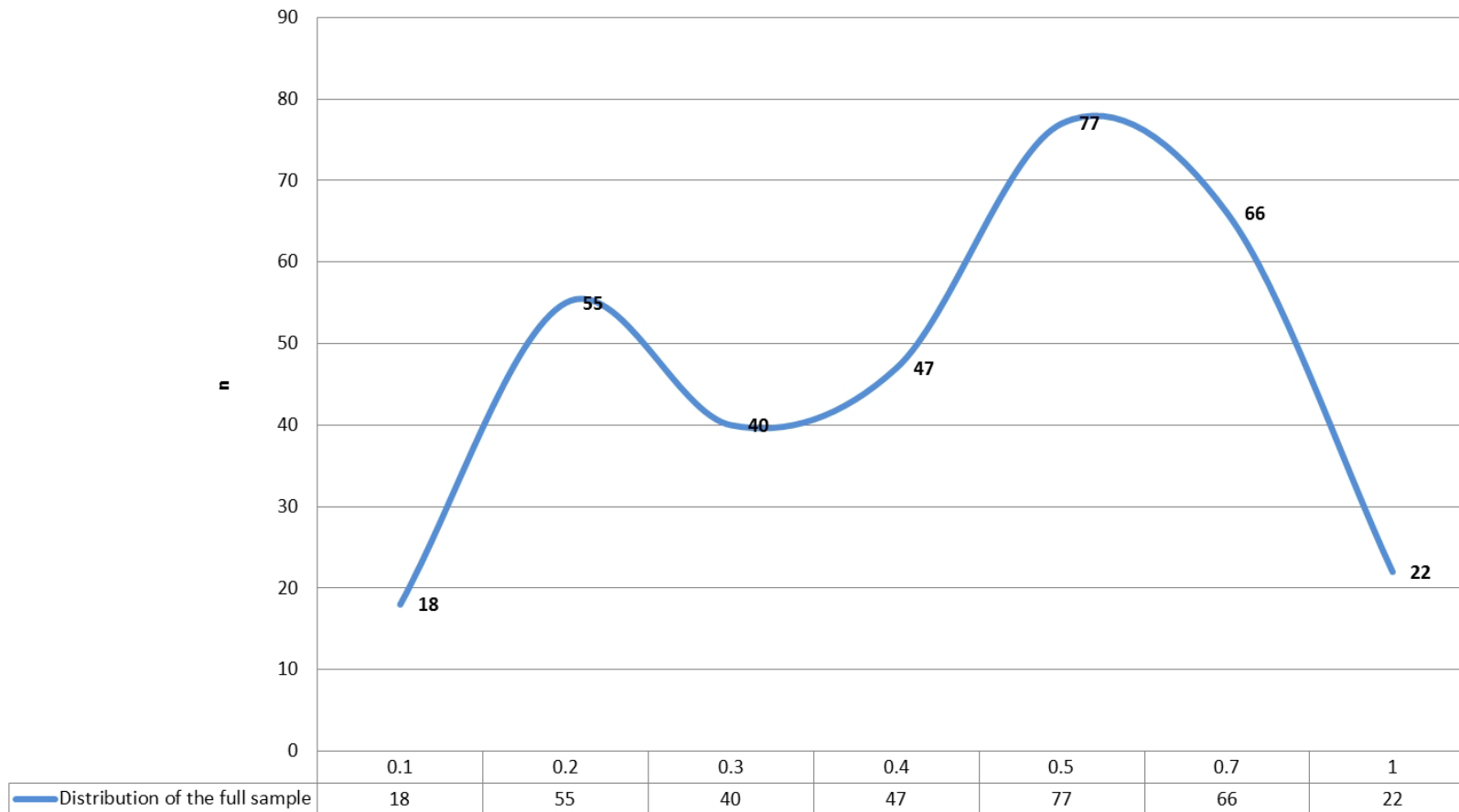


Publishers in sample (n=346)



Distribution of our sample by rating in the Handelsblatt ranking 2012

(n=325)

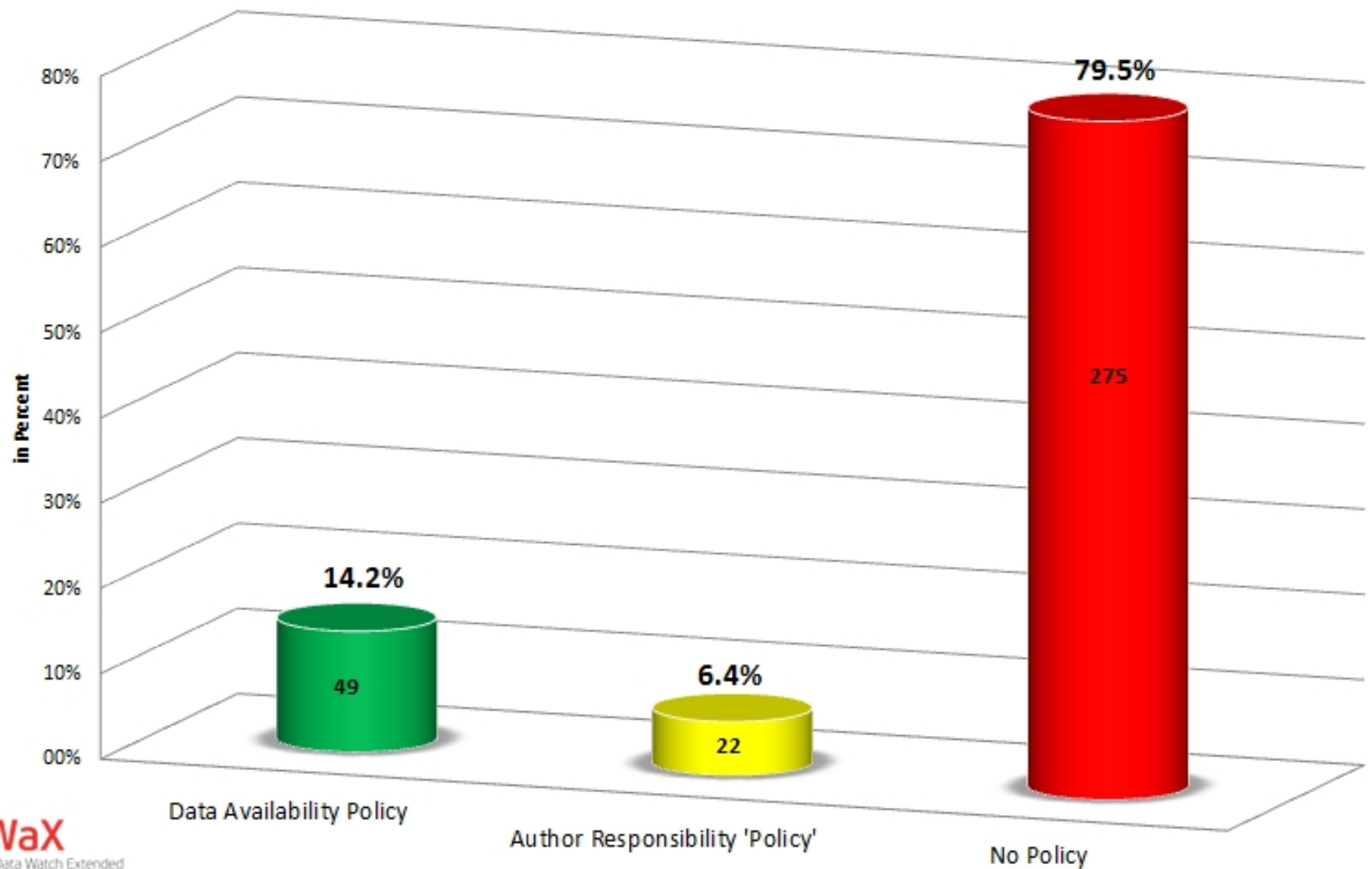


3. Some results of our study

- > 3.1 The number of journals equipped with data policies
- > 3.2 Specifications of journal's data policies

Data Policies im Sample:

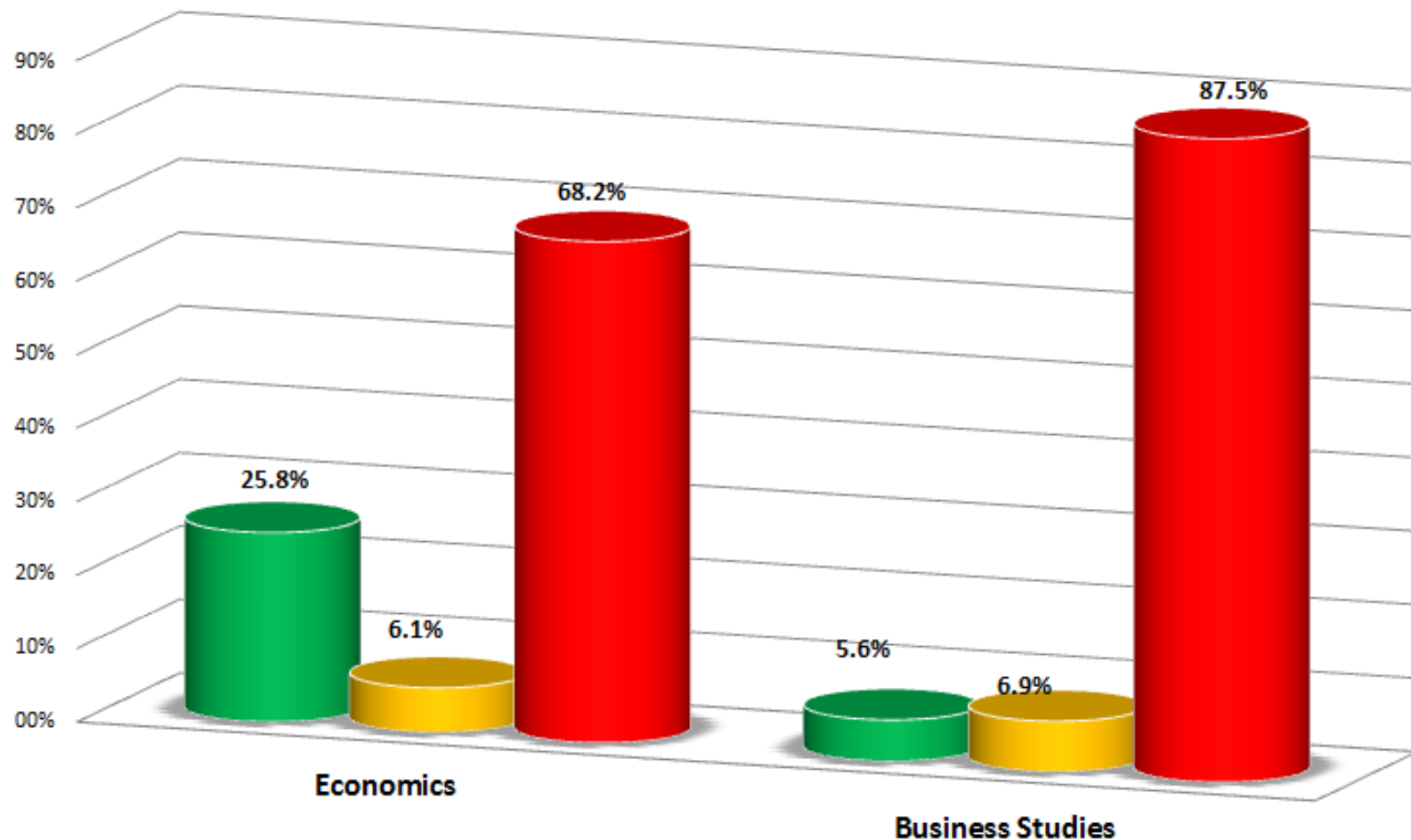
Data Policies in full Sample
(n=346)



Economics & Business studies: Strong differences

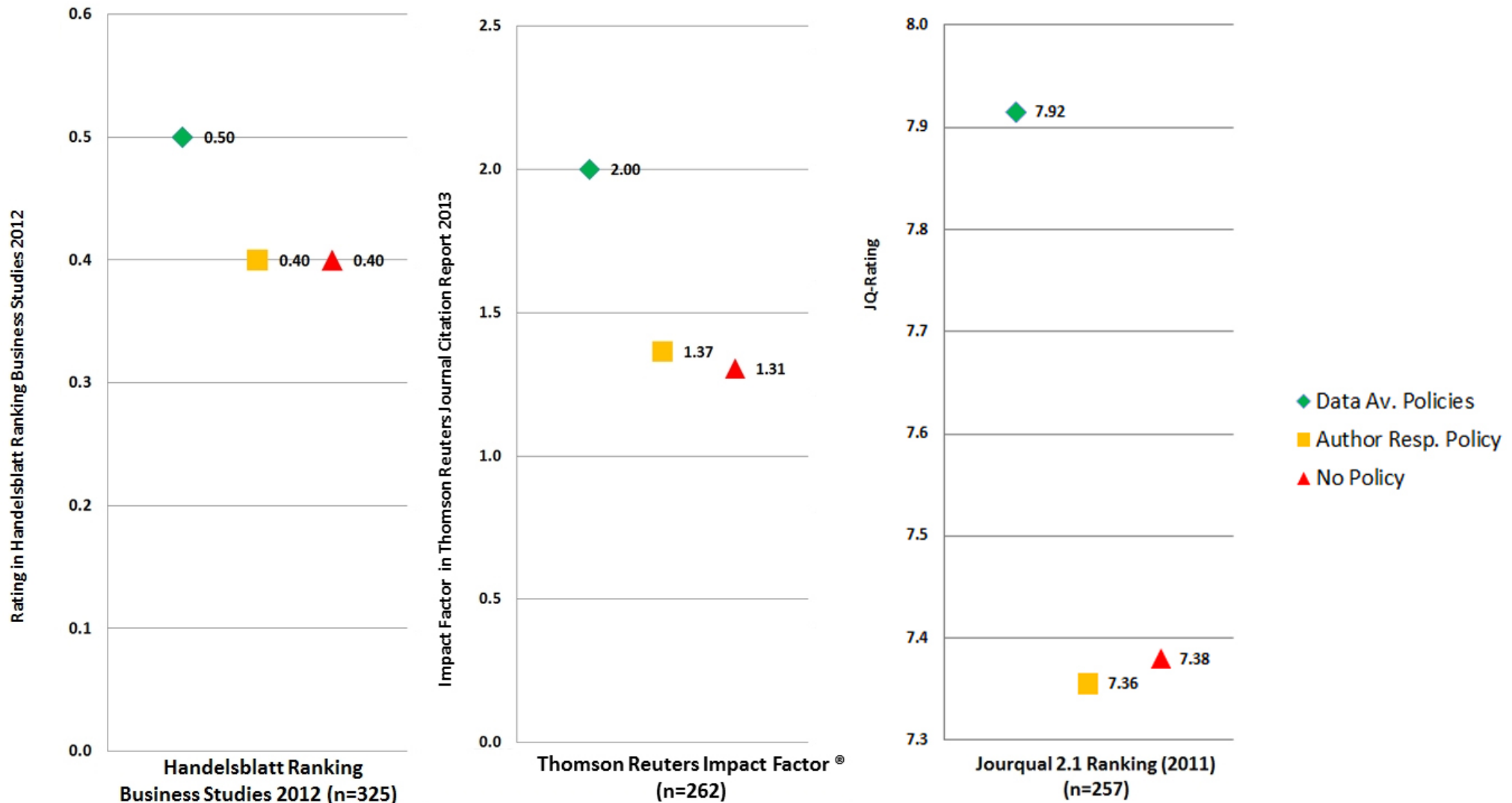
Data Policies of Journals in Economics and Business Studies

(n=293 | Econ: n=132; Bus.Sc.: n=160)



Data policies and journals' rankings

Ranking of journals by type of data policy [median]



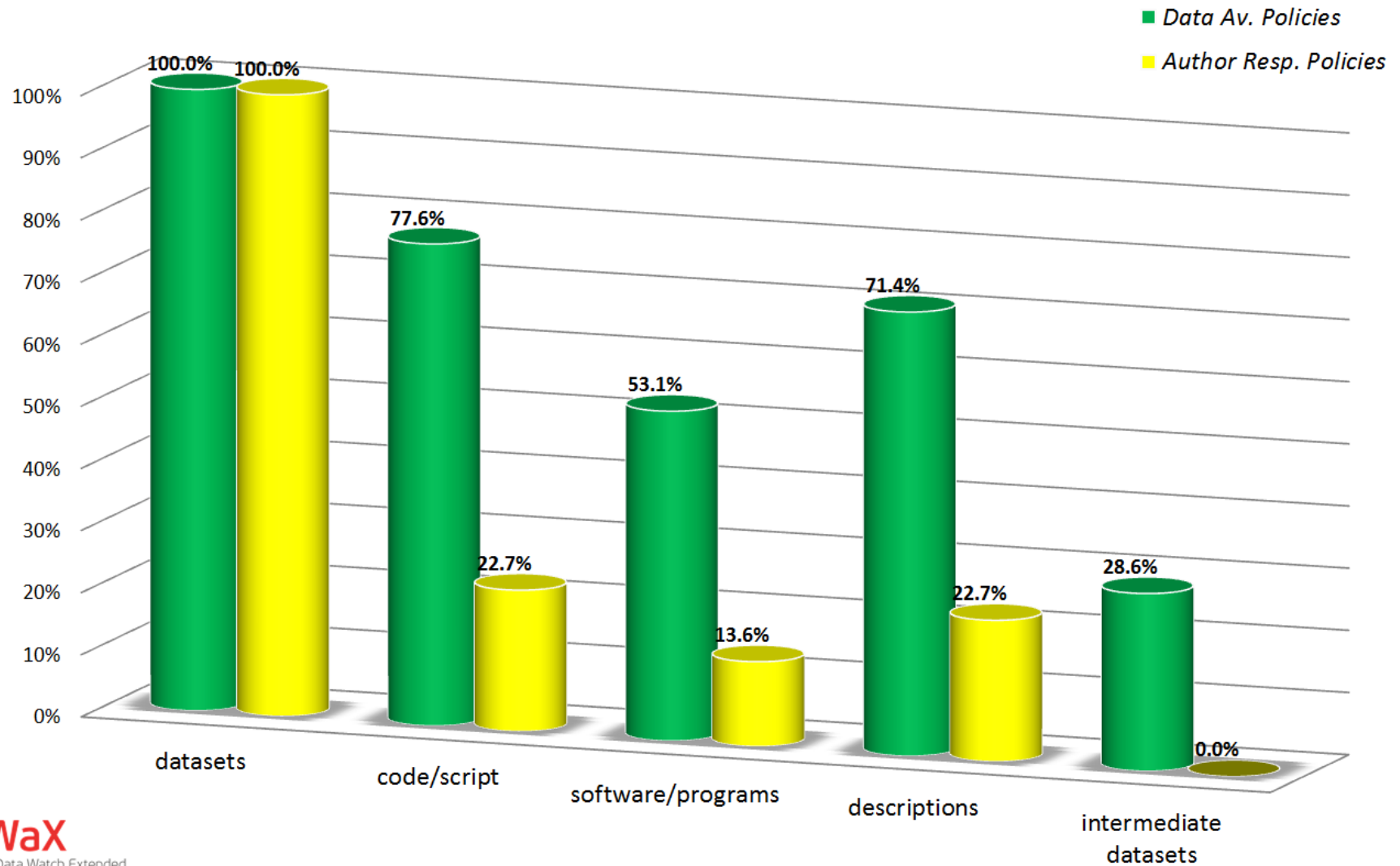
3. Some results of our study

- > 3.1 The amount of journals equipped with data policies
- > 3.2 Some specifications of journal's data policies

Requirements of journals' data policies

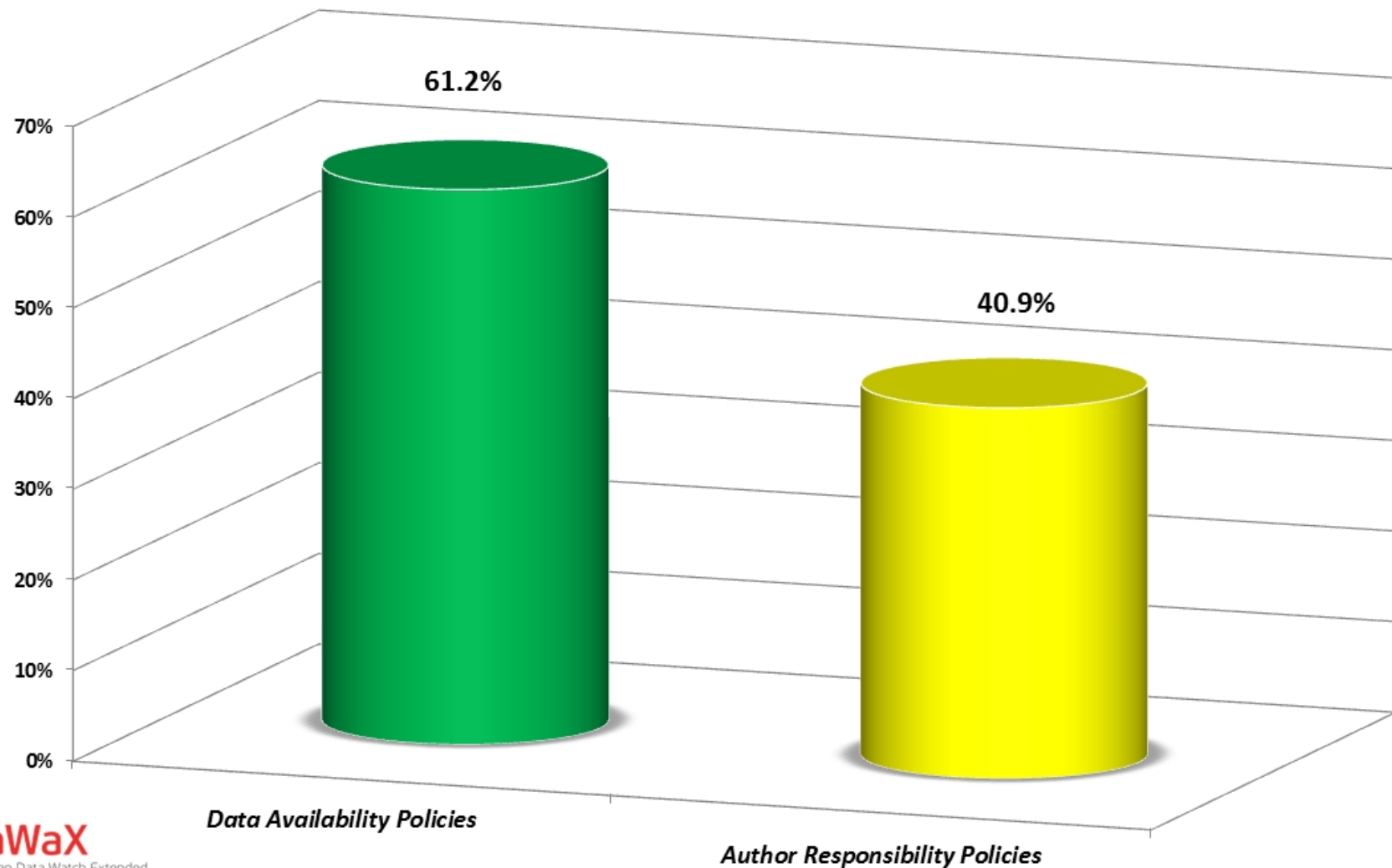
Data Policies: What authors have to provide

(n=71; 49 Data Av. Policies & 22 Author Responsibility Policies)



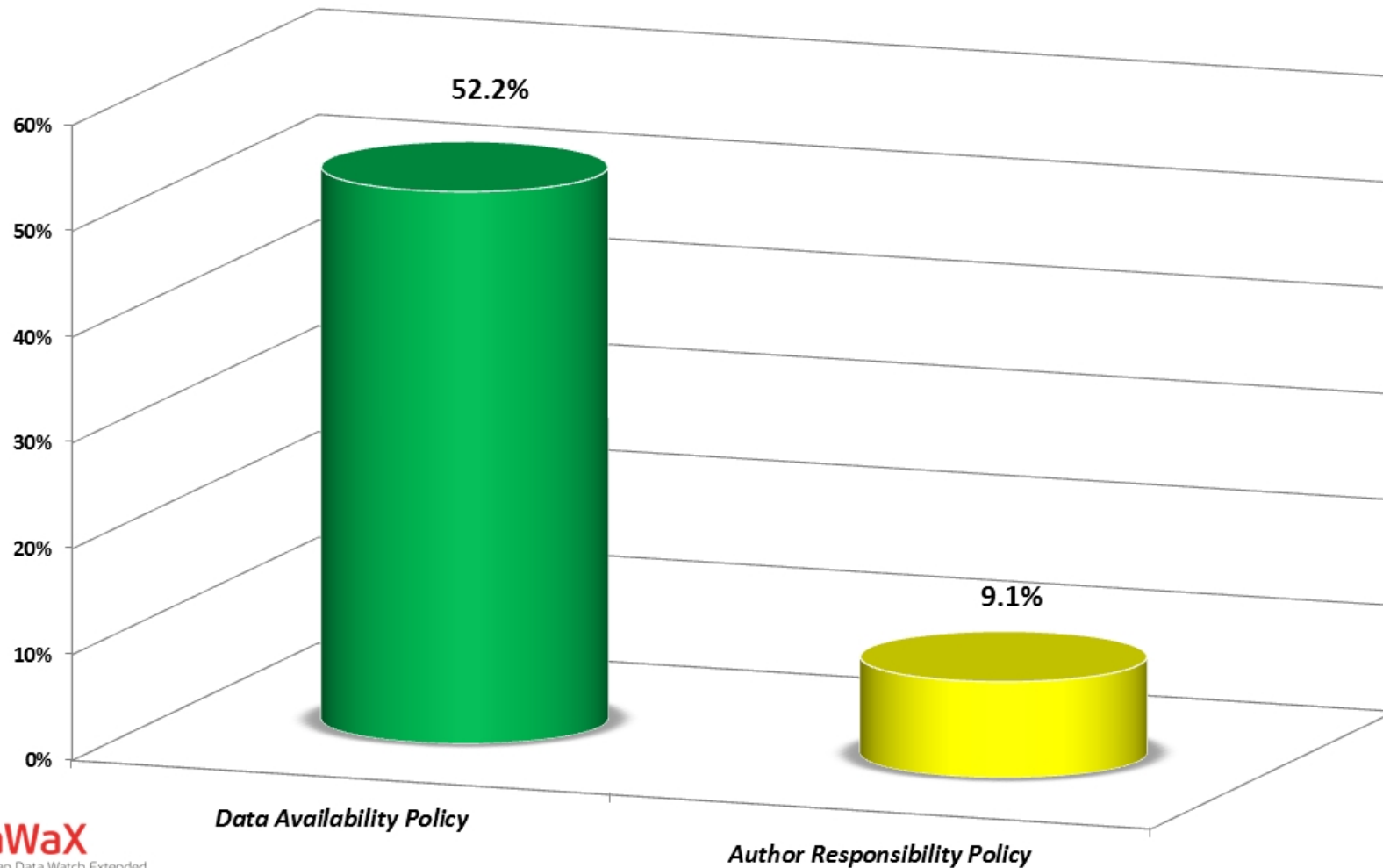
The share of mandatory policies

Mandatory Data Policies in Economic Science Journals
(*n*=71)



The case of proprietary data

Data Policies: Defined Procedures for Research based on proprietary Data
(n=68)



Results: Data policies' specifications

- > ARPs define far less policy specifications than DAPs = weak policies / „window dressing“
- > The code of computation/syntax is requested by (too) few data policies. The same applies to self-compiled software.
- > 60% of all DAPs are mandatory; not really a satisfactory result.
- > Unfortunately, only half of all DAPs have a procedure to foster replicability also for proprietary/confidential data.
- > Intermediate datasets are required by NONE of the policies; less than a third of all DAPs invites authors to submit these files.

4. Take home messages

- > To date, journals equipped with useful data availability policies still are a minority.
- > But, especially in economics the share of journals equipped with such policies rises (> 25% in our sample).
- > On average, journals with such policies are among the best rated journals in the field.
- > Among data policies, there is light and shadow. To date, many data policies remain weak. But: A „good practise“ policy has been implemented by the American Economic Review (AER).

✕ *It is too early to say, that data policies and archives have become a new paradigm for publishing in economic sciences.*

Thank you very much for your attention!

...do you have questions or comments ?

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