Data policies and data archives as prerequisites of reproducible published research in economics’ journals.

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2014-11-27 | 9th Munin Conference on Scholarly Publishing | Tromsø | Norway
Overview of the Talk:

> Why is replicable research important?
  > The prominent example of Reinhart & Rogoff.

> Data sharing in economic sciences
  > Results of an EDaWaX-survey among applied economists.

> Data policies in economic sciences’ journals
  > Results of a new EDaWaX-survey on data policies in economics and business studies.

> Summary & implications
Why replicable research is important...

...the prominent case of Rogoff and Reinhart...
Why replicable Research is important ...


> 2012/2013: EU-Monetary Affairs Commissioner Rehm and US 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
Data Sharing in Economic Sciences

Results of a survey among 488 applied economists in Europe and the U.S.

Working Paper Version: http://hdl.handle.net/10419/75362
Approach of the Study

> Survey sample: 488 randomly selected applied researchers.
  > 388 applied researchers from the field of economics, and
  > 100 applied researchers from the field of business sciences.

> Examination of ...
  > institutional and personal websites
  > public data repositories
  > data repositories of scholarly journals
Results: Data Sharing in Economic Sciences:

(n=488)

Source: Andreoli-Versbach/Mueller-Langer (2014): Open Access to Data: An ideal professed but not practised
Further Results & Implications

> The status quo in applied economic research is *NOT* to share research data.
> The current scientific system does not offer sufficient incentives to promote research data sharing.
> Our study suggests aspects, that positively support the willingness to share research data:
  > Tenure
  > Quality of research (reputation)
Data Policies of Journals in Economic Sciences

Examining the requirements of journals’ data policies in economic sciences | n = 346.
Data Policies in Economic Sciences’ Journals:

Data Policies in full Sample

(n=346)

- 79.5% No Policy
- 14.2% Data Availability Policy
- 6.4% Author Responsibility 'Policy'

EDaWaX
European Data Watch Extended
(Some) Requirements for Data Policies

> Data policies that aim to ensure the replicability of publication-related research data in economics have to...

- ...be mandatory.
- ...pledge authors to provide datasets, code, self-compiled software and descriptions of the data and variables (-> data dictionary) to the journal.
- ...assure that the data is provided prior to publication of an article.
- ...have defined rules for research based on proprietary data.
Data Policies of Journals in Economic Sciences

Primary Scope of Journals in our Sample
(n=346)

- 160; 46.2% primarily economics
- 132; 38.2% primarily business studies
- 34; 9.8% economics & business sciences in equal parts
- 20; 5.8% other

346 Journals in our Sample
Data Policies of Journals in Economic Sciences

346 Journals in our Sample

→ 71 Journals with Data Policies
Data Policies of Journals in Economic Sciences

346 Journals in our Sample

71 Journals with a Data Availability Policy

49
Data Policies of Journals in Economic Sciences

346 Journals in our Sample

71

49

30

Mandatory Policies
Data Policies of Journals in Economic Sciences

346 Journals in our Sample

Data Policies requiring authors to submit the code of computation
Take home Messages:

> The overall percentage of journals in economic sciences equipped with data policies is comparatively low.

> Generally speaking, data policies that rely on data disclosure upon request ("author responsibility, policy"), are very weak.

> The amount of mandatory data availability policies, that also require authors to provide the code of computation, is around 7% of the full sample, only.
Implications ...

> In economic sciences we have to make considerable efforts to promote data sharing.

> First and foremost, we need efficient incentives to honour working up data for others and data sharing ("carrots").

> In addition, journals should be advised how to implement data availability policies ("sticks").

> We have to support researchers!
  - Develop suitable e-infrastructures to support proper citation of shared data and to enable recognition of data sharing efforts for researchers!
Thank you very much for your attention!

...do you have questions or comments?

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