Facilitating Replication of Research Results in Economics.

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EDaWaX
European Data Watch Extended
Background of the Project:

- Increasing number of empirical publications in economics
- Often no means to replicate the results of economic research
  - Incentives for researchers to share their data are missing
  - Infrequent implementation of data availability policies by economic journals
  - E-infrastructure for publication-related research data is almost not available

⇒ Poor status quo.

Replication is a cornerstone of the scientific method!
Project Phases and Outcome

Project output:

- Implementation of a data archive for a scholarly journal.
- Incentive schema for authors to publish research data.
- Recommendations for data policies.
- Recommendation for hosting options for research data.
Data Availability Policies (DAPs) in Economics Journals

“If the empirical basis for an article [...] cannot be reproduced, of what use to the discipline are its conclusions? What purpose does an article like this serve?”

(Gary King, 1995)
(Some) Results of our Survey

- Number of journals with DAPs (29) still is small – but it is slightly rising.
- Most of the journals with DAPs are among the top journals in Economics.
- Policies differ massively in quality and extent - some are merely “window dressing”.
- More than \( \frac{1}{3} \) of all journals owning DAPs used the policy of the *American Economic Review (AER)* = a useful, good practise.

- Estimated half of the policies do not permit replications, because the submission of the code of computation is not required!

- A detailed report of our findings is available on [www.edawax.de](http://www.edawax.de) and [www.openeconomics.net/blog](http://www.openeconomics.net/blog).
Availability of Research Data in Data Archives of Economics Journals

How do journals prioritise the availability of data and code?

A deeper look into the journals’ data archives....
Do Journals enforce data availability?

Percentage of Articles with publication-related Research Data in Data Archive (2 issues have been checked)

(n=29)
Conclusion & Gaps

> Beyond functional DAPs (& forced data availability!) we need...

- Incentives for researcher to provide their data = Rewards for data sharing in terms of scientific appreciation.
  ➞ A 'cultural change' in Economics: Replications and the provision of data are crucial for the progress of science.

- Standards - what data has to be provided in which granularity to enable replications?
- An improved e-infrastructure that allows searching, citing, finding and reusing publication-related research data.
Thank you very much!

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