



BERKELEY INITIATIVE FOR TRANSPARENCY  
IN THE SOCIAL SCIENCES

Transparency,  
Reproducibility,  
and the  
Credibility of  
Economics  
Research

Christensen

Introduction

Registrations

Pre-Analysis Plan

# Transparency, Reproducibility, and the Credibility of Economics Research

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Slides available online at

<http://www.github.com/BITSS/REStat100>



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## Problems

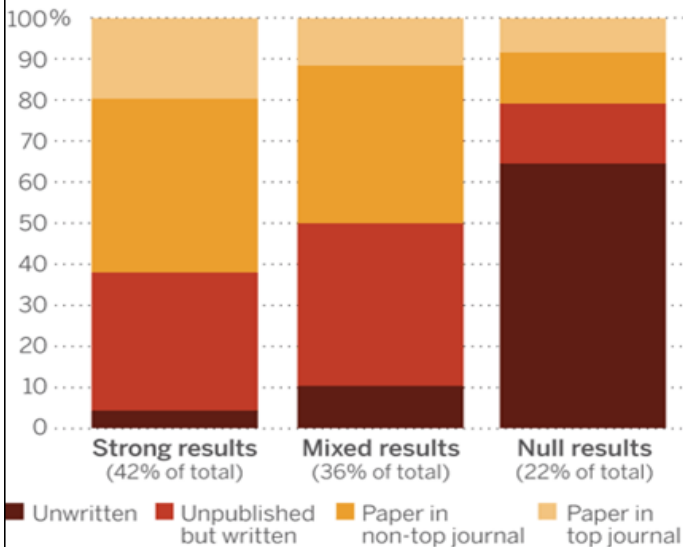
- Publication Bias
- P-Hacking

## Potential Solutions

- Registration
- Pre-Analysis Plans
- Registered Reports
- Data Sharing

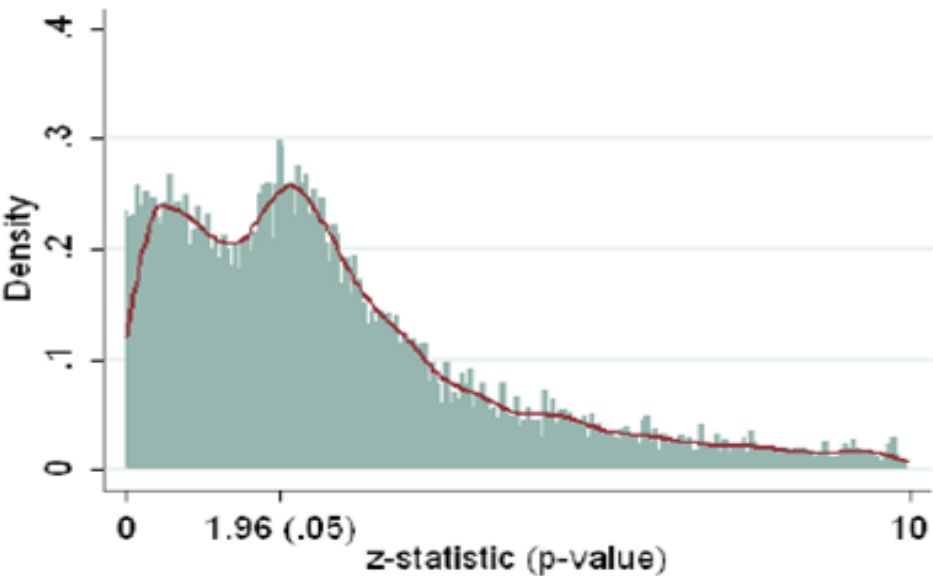
# Most null results are never written up

The fate of 221 social science experiments

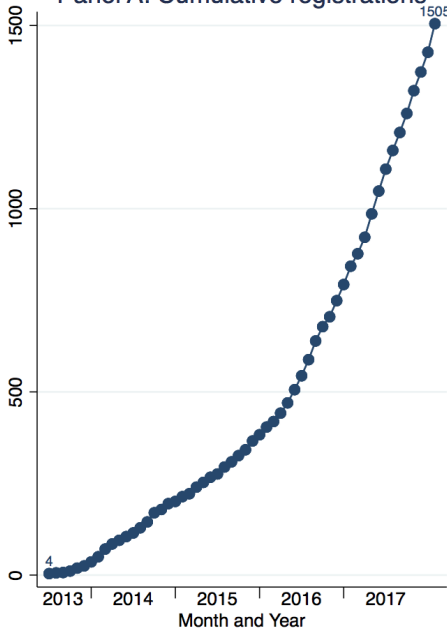


Source: A. Franco *et al.*, *Science* (28 August)

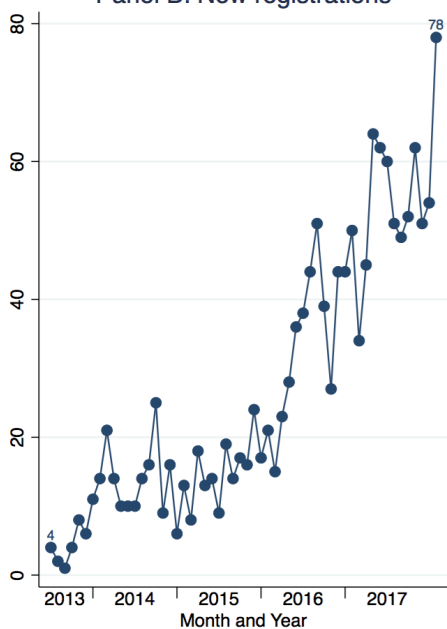
(b) Unrounded distribution of z-statistics.



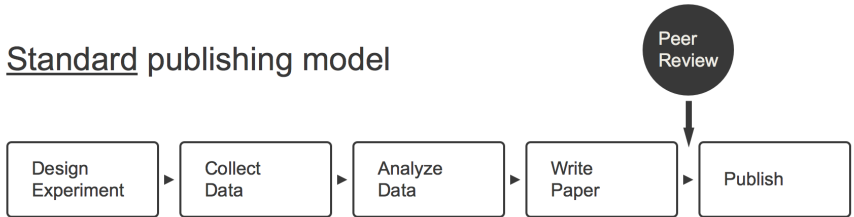
Panel A: Cumulative registrations



Panel B: New registrations

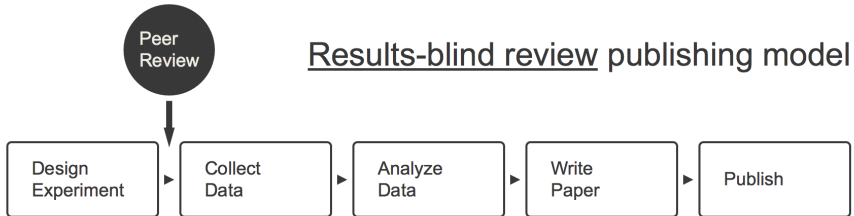


## Standard publishing model



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## Results-blind review publishing model



**Enter Manuscript Information**

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## Enter Manuscript Information

To begin, select an issue from the dropdown list.

Issue: 

Select an article type from the dropdown list. Enter the required information into the fields that then appear.

Article Type:

- Full Length Article
- Registered Report Stage 2: Full Article
- Registered Report Stage 1: Proposal



From 3ie:

*“A pre-analysis plan is a detailed description of the analysis to be conducted that is written in advance of seeing the data on impacts of the program being evaluated. It may specify hypotheses to be tested, variable construction, equations to be estimated, controls to be used, and other aspects of the analysis. A key function of the pre-analysis plan is to increase transparency in the research. By setting out the details in advance of what will be done and before knowing the results, the plan guards against data mining and specification searching.”*

Outcome variable	(1) Mean for controls	(2) Treatment effect
Panel A: GoBifo “weakened” institutions		
Attended meeting to decide what to do with the tarp	0.81	-0.04 <sup>+</sup>
Everybody had equal say in deciding how to use the tarp	0.51	-0.11 <sup>+</sup>
Community used the tarp (verified by physical assessment)	0.90	-0.08 <sup>+</sup>
Community can show research team the tarp	0.84	-0.12 <sup>*</sup>
Respondent would like to be a member of the VDC	0.36	-0.04 <sup>*</sup>
Respondent voted in the local government election (2008)	0.85	-0.04 <sup>*</sup>
Panel B: GoBifo “strengthened” institutions		
Community teachers have been trained	0.47	0.12 <sup>+</sup>
Respondent is a member of a women’s group	0.24	0.06 <sup>**</sup>
Someone took minutes at the most recent community meeting	0.30	0.14 <sup>*</sup>
Building materials stored in a public place when not in use	0.13	0.25 <sup>*</sup>
Chieftdom official did not have the most influence over tarp use	0.54	0.06 <sup>*</sup>
Respondent agrees with “Responsible young people can be good leaders” and not “Only older people are mature enough to be leaders”	0.76	0.04 <sup>*</sup>
Correctly able to name the year of the next general elections	0.19	0.04 <sup>*</sup>

# The Employment Effects of Minimum Wages: Evidence from a Prespecified Research Design

DAVID NEUMARK\*

This article presents evidence on the employment effects of recent minimum wage increases from a prespecified research design that entailed committing to a detailed set of statistical analyses prior to “going to” the data. The limited data to which the prespecified research design can be applied may preclude finding many significant effects. Nonetheless, the evidence is most consistent with disemployment effects of minimum wages for younger, less-skilled workers.

# NOVEMBER 8, 2016. WHAT REALLY HAPPENED?

[REGISTER A DESIGN \(closed\)](#)[OFFICIAL RULES](#)[GET TWITTER UPDATES](#)

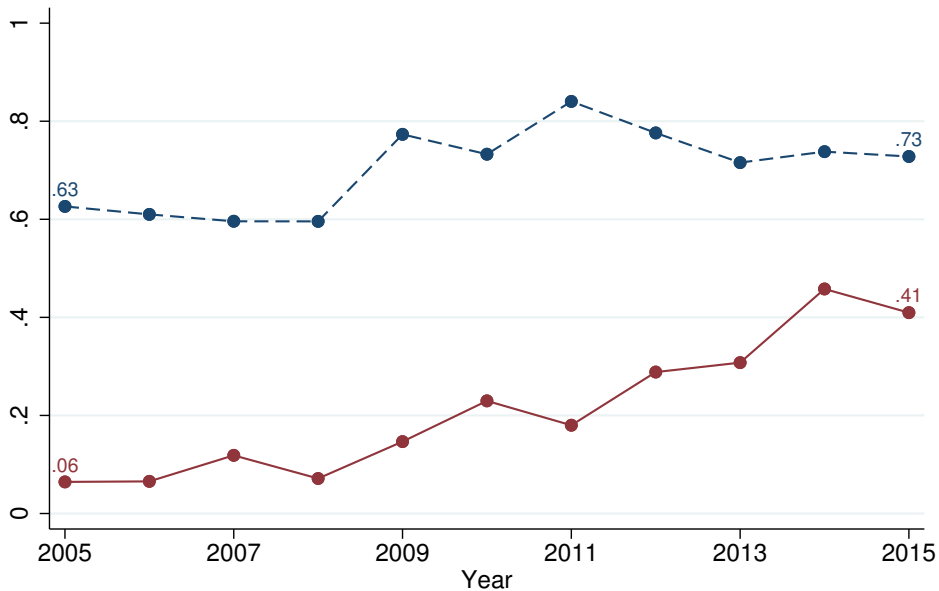
An opportunity for scholars studying elections:

- Preregister a research design for a study of the 2016 general election using ANES data *before* the data are publicly released. **UPDATE (3/31/17): ANES DATA RELEASED. THE REGISTRY IS CLOSED. THANK YOU FOR YOUR PARTICIPATION!**
1. **Submit an article including this design to a participating journal**, which will consider your submission *before* data are available.
  2. **Win a cash award for publishing your article.**

# Replication in Empirical Economics: *The Journal of Money, Credit and Banking Project*

By WILLIAM G. DEWALD, JERRY G. THURSBY, AND RICHARD G. ANDERSON\*

*This paper examines the role of replication in empirical economic research. It presents the findings of a two-year study that collected programs and data from authors and attempted to replicate their published results. Our research provides new and important information about the extent and causes of failures to replicate published results in economics. Our findings suggest that inadvertent errors in published empirical articles are a commonplace rather than a rare occurrence.*



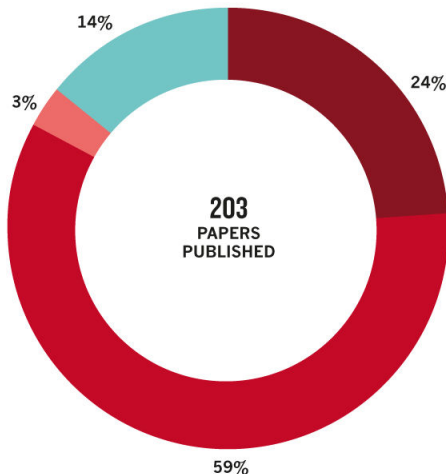
—●— Fraction papers with data    —●— Fraction data papers exempted

## REPLICATION RARELY POSSIBLE

An analysis of 203 economics papers found that fewer than one in seven supplied the materials needed for replication.

### ELEMENTS PROVIDED\*:

- None
- One or more missing
- All, code doesn't run
- All, code runs



\*The elements assessed were raw data, raw code, estimation data and estimation code.

## DATA CHECKED?

In a survey of 67 journals, most of the political-science and top-tier economics titles required authors to submit software code and data to editors before publication. Journals in sociology and psychology rarely did so.

