



BERKELEY INITIATIVE FOR TRANSPARENCY
IN THE SOCIAL SCIENCES

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Transparencia en Investigacion en las Ciencias Sociales

Fernando Hoces de la Guardia¹

¹UC Berkeley:

Berkeley Initiative for Transparency in the Social Sciences

Pontificia Universidad Catolica, Octubre 2017
Slides disponibles en COMPLETAR

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros
Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing

Conclusion

Primero, un favor: ¿Podrian completar esta breve encuesta
[en ingles]?

<https://goo.gl/0yIhEu>



BERKELEY INITIATIVE FOR TRANSPARENCY
IN THE SOCIAL SCIENCES

Estructura de la Presentación

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

1 Introducción

2 Etica en la Investigacion Cientifica

3 Registros

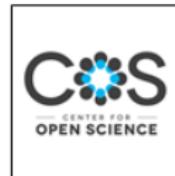
4 Pre-Analysis Plans

5 Replication

6 Conclusion



BERKELEY INITIATIVE FOR TRANSPARENCY
IN THE SOCIAL SCIENCES



ICPSR



BERKELEY INITIATIVE FOR TRANSPARENCY
IN THE SOCIAL SCIENCES

Etica en la Investigación Cientifica

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

- Transparencia es un elemento central de la etica del investigador.
- Valores científicos acuñados por Robert Merton (Merton 1942):
 - Universalismo: cualquier persona puede presentar un argumento, independiente de su estatus.
 - Comunismo: el conocimiento es compartido de manera abierta.
 - Desinteres: la verdad como motivacion, y no los beneficios monetarios WHAT IS COI?(COI).
 - Escepticismo Organizado: revisión a traves de pares (peer review), replicación.



BERKELEY INITIATIVE FOR TRANSPARENCY
IN THE SOCIAL SCIENCES

Etica en la Investigación Cientifica

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

- Casos de fraude existen (Simonsohn 2013), pero más importante como investigadores tenemos que admitir nuestra condicion humana, sujetos a sesgos y razonamiento motivado, transparencia puede ayudar con esto (Nosek, Spies, Motyl 2012).
- Quienes llevamos a cabo experimentos o usamos datos con información identificable a nivel individual, tenemos que tomar con seriedad los Comités de Ética Institucionales (IRBs) (Ch. 11–13 Morton & Williams 2010, Desposato 2014).

Etica en la Investigación Científica

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Científica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Por que nos preocupamos:

- (Anderson, Martinson, De Vries 2007)
- (John, Loewenstein, Prelec 2011)

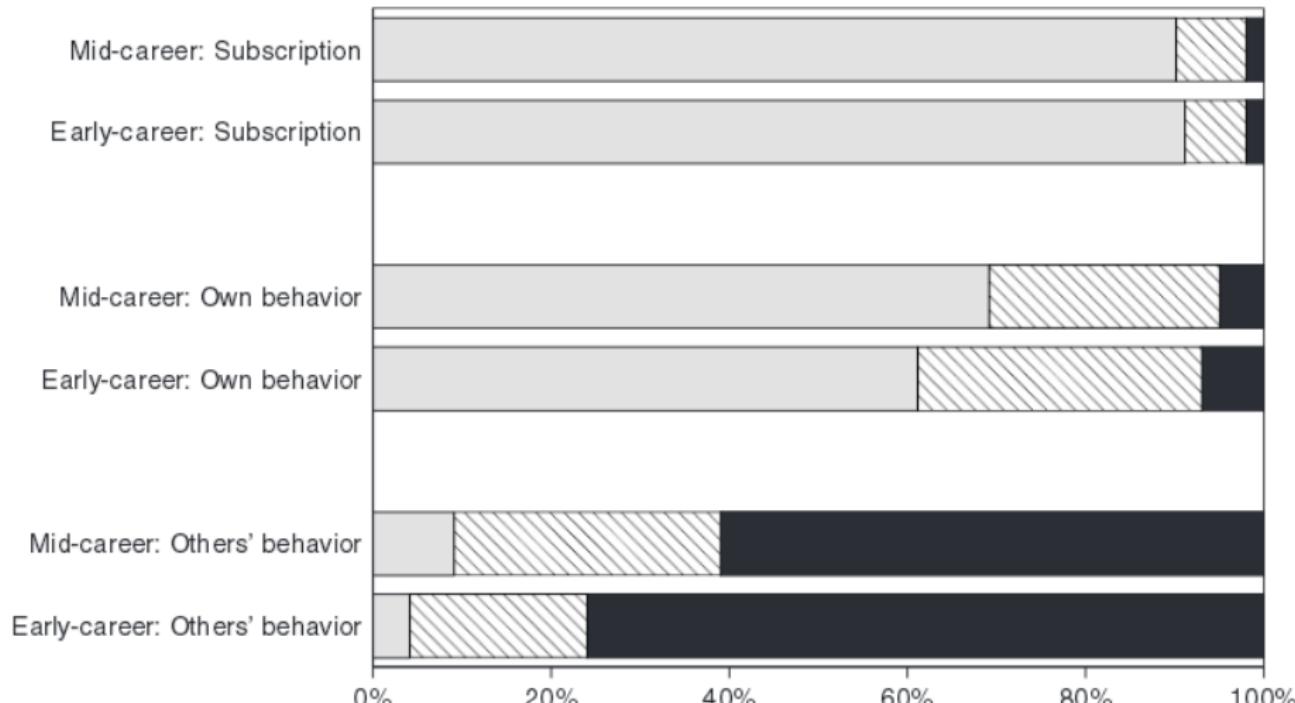


FIG. 3. Norm versus Counternorm Scores: Percent with Norm > Counternorm (dotted), Norm = Counternorm (striped), Norm < Counternorm (solid).

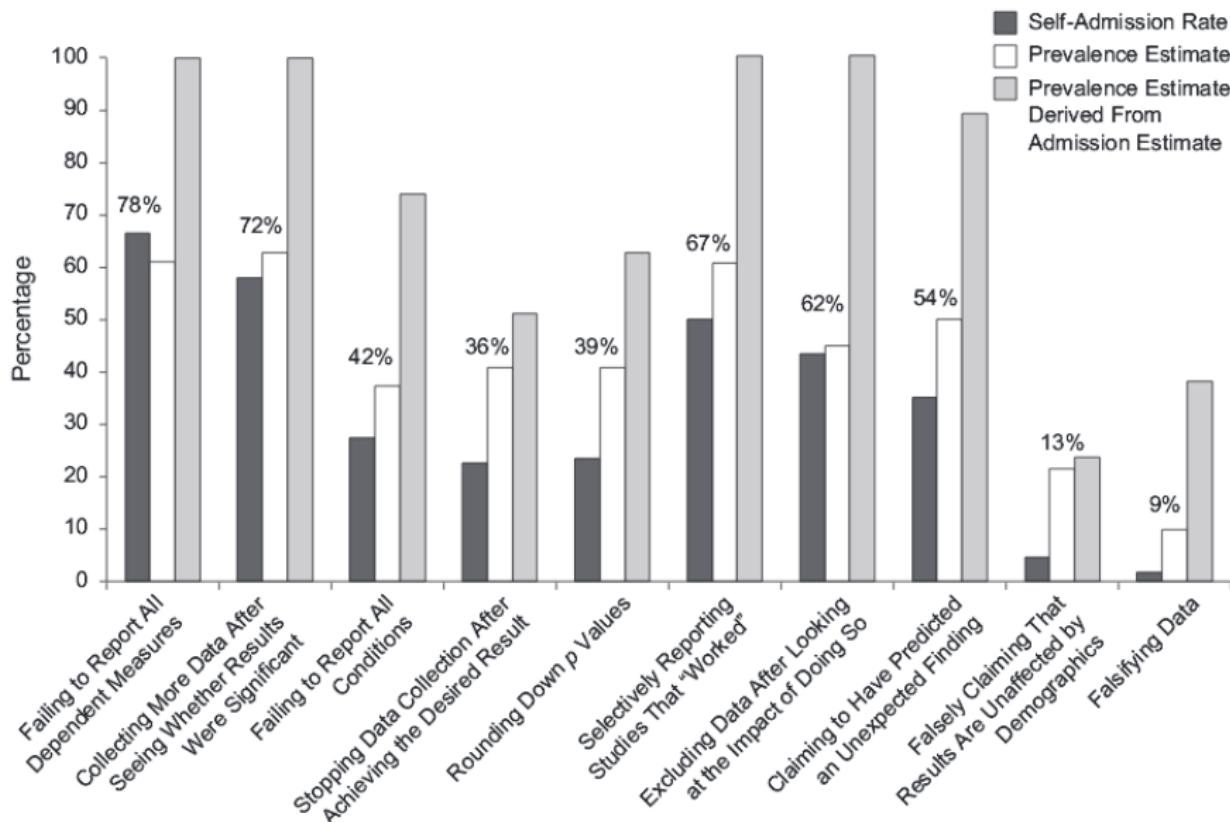


Fig. 1. Results of the Bayesian-truth-serum condition in the main study. For each of the 10 items, the graph shows the self-admission rate, prevalence estimate, prevalence estimate derived from the admission estimate (i.e., self-admission rate/admission estimate), and geometric mean of these three percentages (numbers above the bars). See Table I for the complete text of the items.

Sesgo de Publicación

Transparencia en Investigacion en las Ciencias Sociales Hoces

Introducción
Etica en la Investigacion Cientifica

Registros
Sesgo de Publicación
Registros

Pre-Analysis Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol, Reporting Standards
Workflow
Version Control
Data Sharing
Conclusion

Existencia del problema:

- El tamaño de los efectos disminuye con el tamaño muestral (Gerber, Green, Nickerson 2001)
- Las Ciencias Sociales muestran una tasa de rechazo de la hipótesis nula mayor que las ciencias duras (Fanelli 2010).
- La publicación de efectos nulos está desapareciendo en el tiempo, en todas las disciplinas. (Fanelli 2011).
- Estudio que siguió a experimentos completados muestra que aquellos experimentos con fuertes resultados son 40pp más probable de ser publicados, y 60pp más probable de ser escritos. Alto “file drawer problem”. (Franco, Malhotra, Simonovits 2014)

Problema en todas las disciplinas

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros
Sesgo de
Publicación
Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

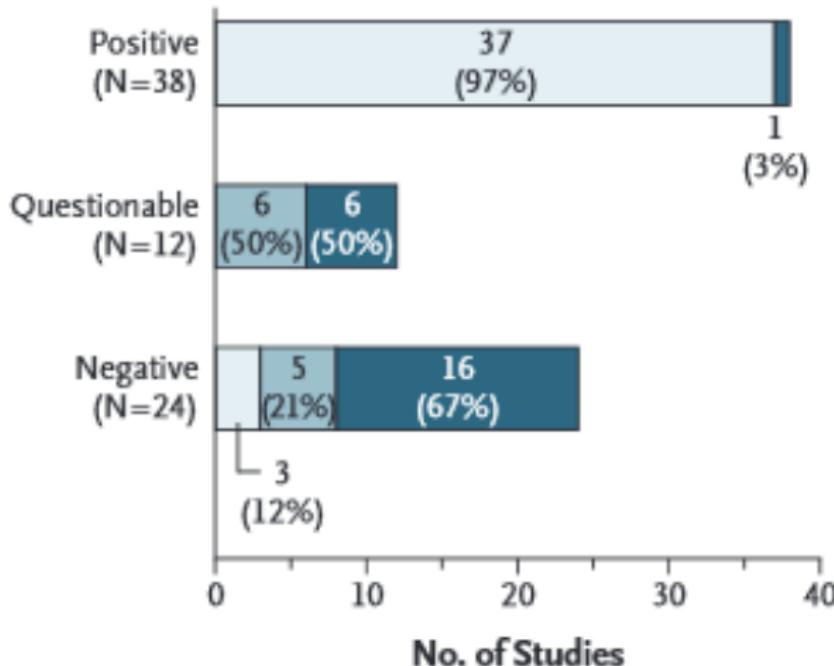
Conclusion

- Medicina: (Turner et al. 2008)
- Ciencias Sociales: (Franco, Malhotra, Simonovits 2014)
- Economía: (Brodeur et al. 2016)
- Sociología: (Gerber and Malhotra 2008)
- Ciencias Políticas: (Gerber and Malhotra 2008)

- Published, agrees with FDA decision
- Published, conflicts with FDA decision
- Not published

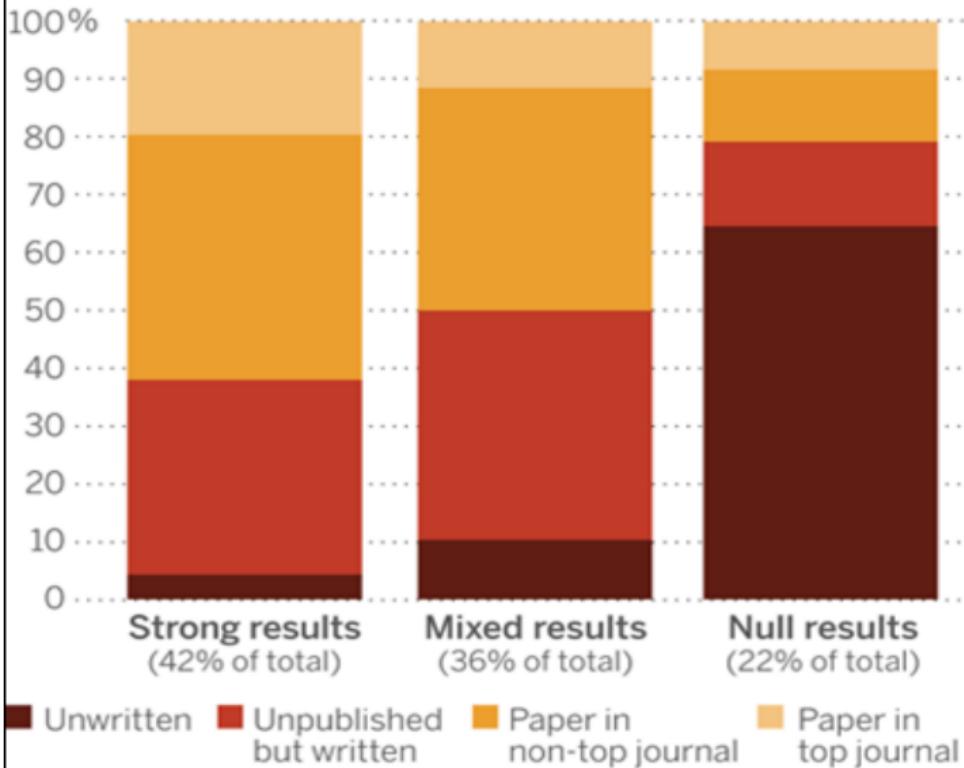
A Studies (N=74)

FDA Decision



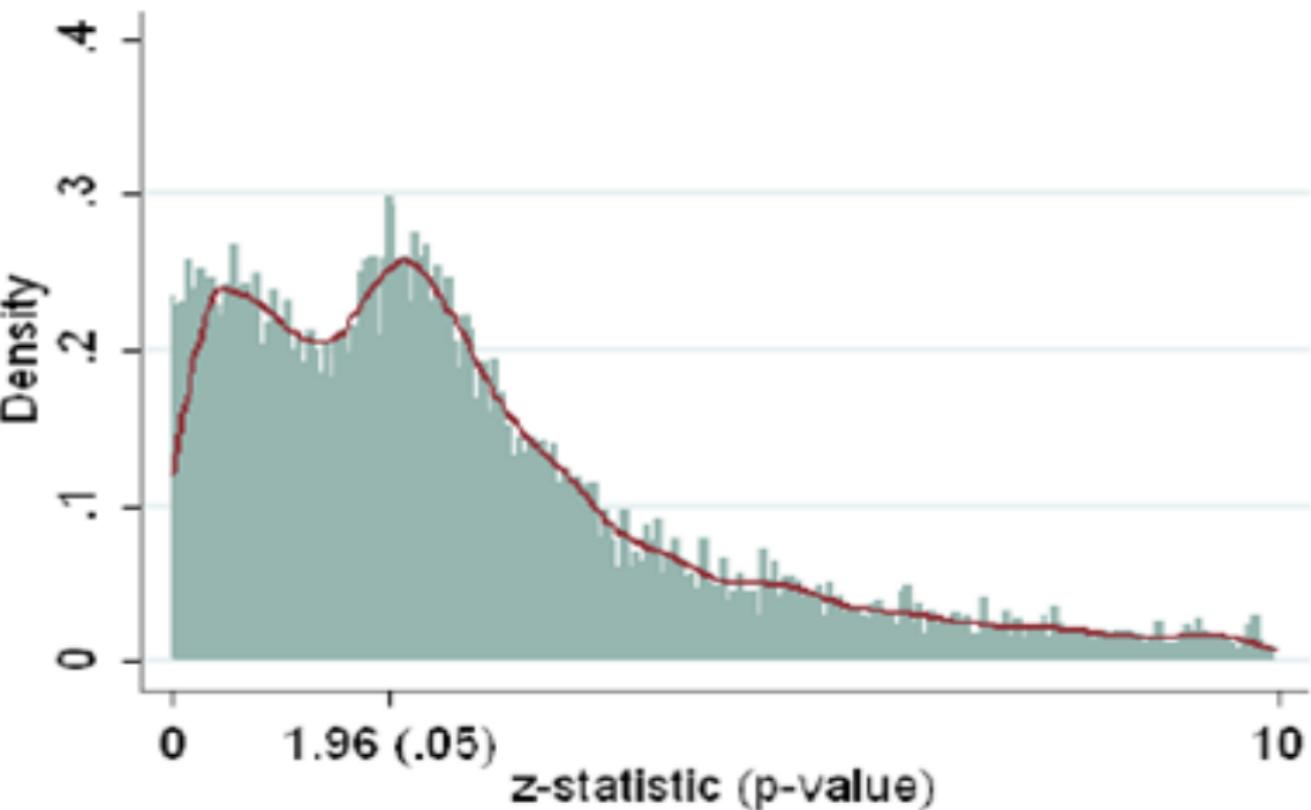
Most null results are never written up

The fate of 221 social science experiments

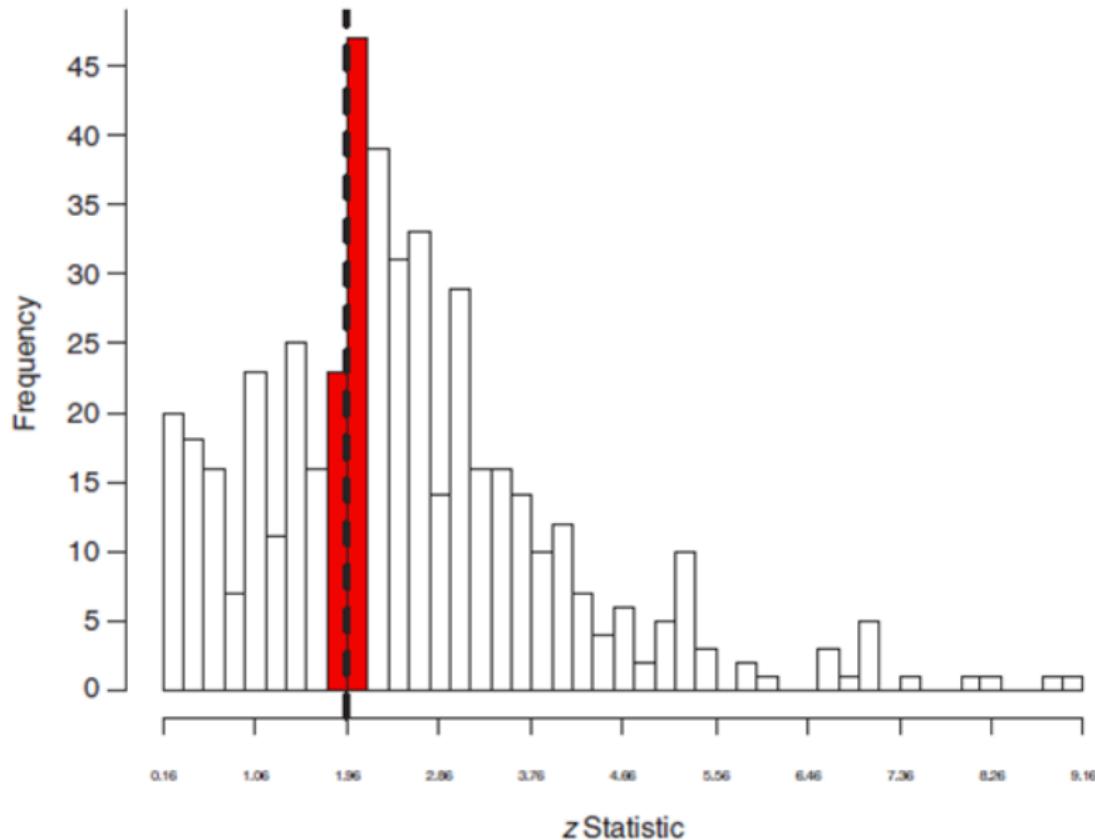


Source: A. Franco et al., *Science* (28 August)

(b) Unrounded distribution of z-statistics.



Histogram of z Statistics From the *American Sociological Review*, the *American Journal of Sociology*, and *The Sociological Quarterly* (Two-Tailed)



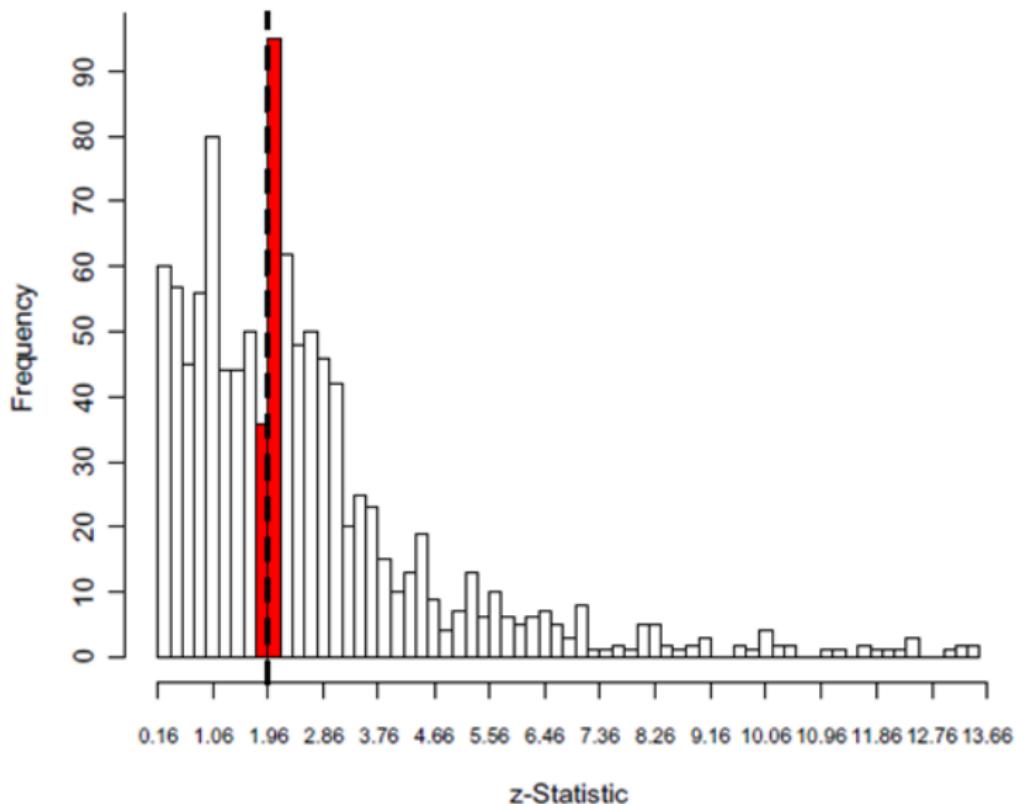


Figure 1(a). Histogram of z -statistics, *APSR* & *AJPS* (Two-Tailed). Width of bars (0.20) approximately represents 10% caliper. Dotted line represents critical z -statistic (1.96) associated with $p = 0.05$ significance level for one-tailed tests.

Sesgo de Publicación

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros
Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing

Conclusion

Si solo escribimos/publicamos resultados significativos, y no dejamos registro de los no significativos, no tenemos forma de distinguir si nuestros resultados “significativos” son reales, o si son el 5% que deberíamos esperar debido a error estadístico.

Registros

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Pre-Registros como una solución al sesgo de publicación:

- Hacer pública la investigación a ejecutar, publicando por adelantado las hipótesis a testear.
- Adopción casi universal en RCTs en medicina.
Journals top (ICMJE) no publican estudios si no están registrados. <http://clinicaltrials.gov>

Registros

Transparencia en Investigación en las Ciencias Sociales

Hojas

Introducción

Etica en la Investigación Científica

Registros

Sesgo de Publicación

Registros

Pre-Analysis Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol, Reporting Standards

Workflow

Version Control

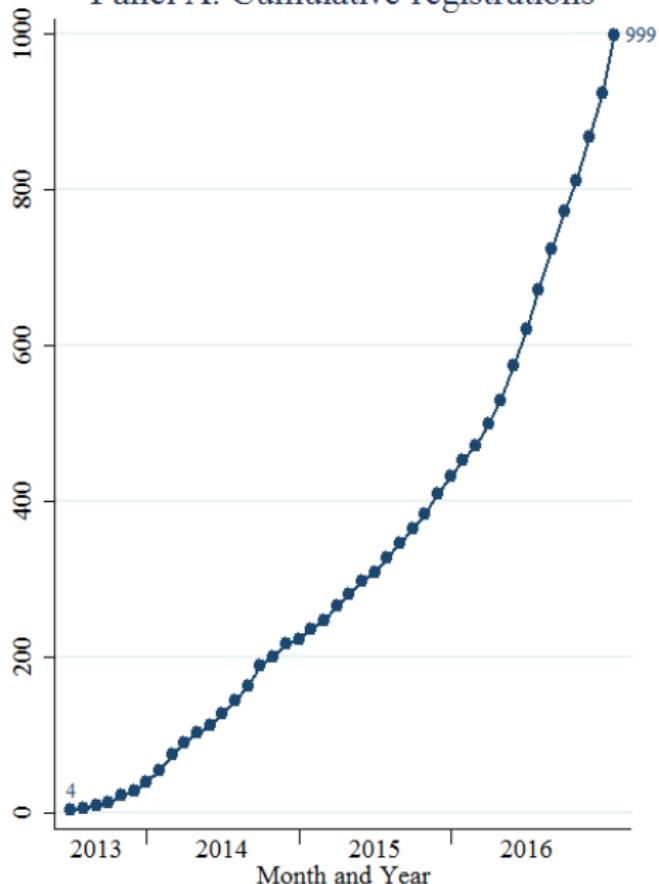
Data Sharing

Conclusion

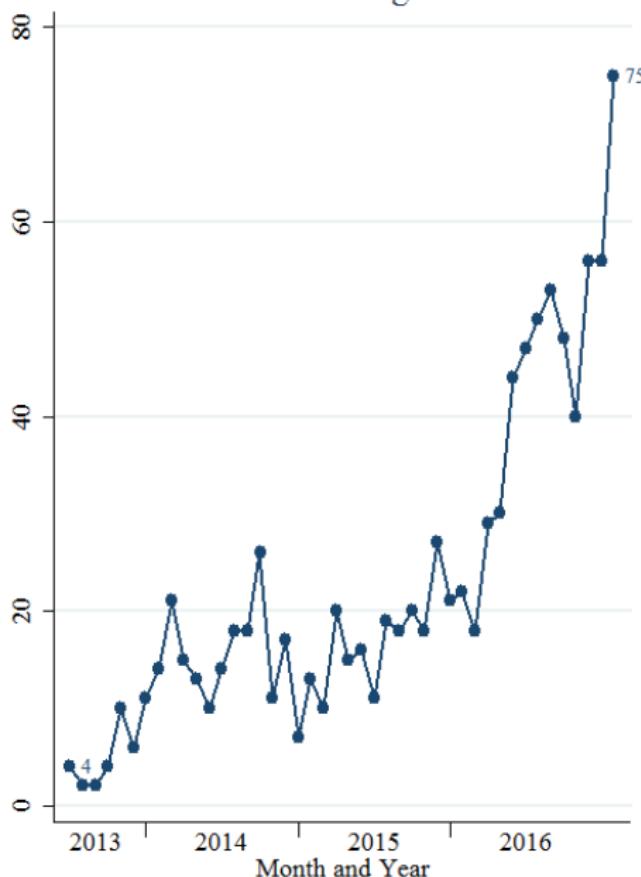
Nuevos en ciencias sociales, pero:

- Registro de AEA , actualmente solo para RCTs.
<http://socialscienceregistry.org>
- Registro de EGAP
<http://egap.org/design-registration>
- Registro de 3ie, para evaluaciones en países en desarrollo. <http://ridie.3ieimpact.org>
- Open Science Framework
<http://osf.io>
 - Formato abierto
 - Pronto va a estar sincronizado con los de más arriba
- Simple: <http://aspredicted.org>

Panel A: Cumulative registrations



Panel B: New registrations



Publicaciones Basadas en Diseño de la Investigación

Transparencia en Investigacion en las Ciencias Sociales Hoces

Introducción

Etica en la Investigacion Cientifica

Registros Sesgo de Publicación Registros

Pre-Analysis Plans P-Hacking Pre-Analysis Plan

Replication Project Protocol, Reporting Standards Workflow Version Control Data Sharing

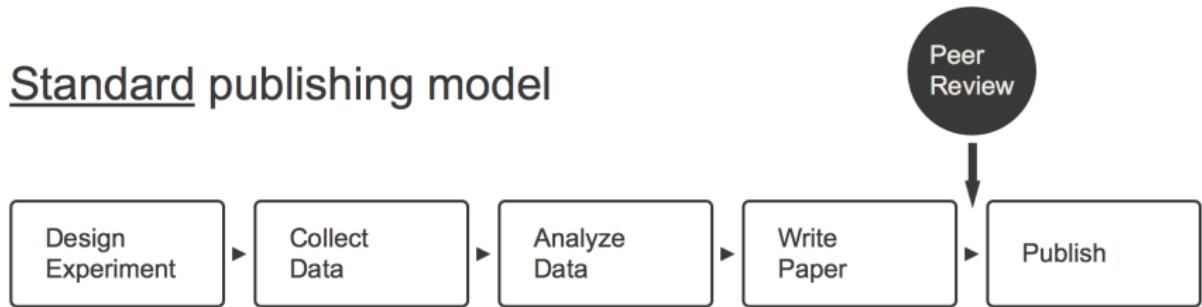
Conclusion

Alias Reportes Registrados, cambia el timing de peer review antes del la recolección de datos, análisis y resultados.

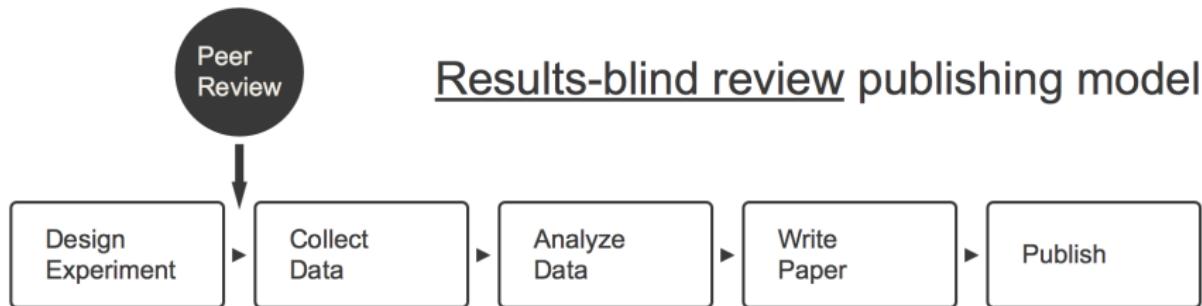
- 1 Diseñar un estudio
- 2 Enviar a un journal
- 3 Revision basada en la importancia de la pregunta y calidad del diseño
- 4 Obtener aceptacion en principio
- 5 Ejecutar el estudio, y publicar incluso con resultados nulos

20 Journals, 5 más con ediciones especiales [Link](#)

Standard publishing model



Results-blind review publishing model



Meta-Análisis

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans

P-Hacking
Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Sintesis sistematico de los resultados

Organizaciones:

- Cochrane Collaboration (Medicine)
- Campbell Collaboration (Policy)
- What Works Clearinghouse (US Gov't, Education)
- CLEAR (US Gov't, Labor)
- MAER-NET (Economics)



Meta-Análisis

Transparencia
en
Investigación
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigación
Científica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replicación

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Tools:

- Funnel plots del tamaño de la muestra vs. tamaño del efecto (Card & Krueger 1995)
- Funnel Asymmetry Test (Stanley & Doucouliagos 2012)
- P-curve (Simonsohn et al. 2014)
 - ▶ Online App
 - Un p-checker para todos
 - ▶ Shiny App

P-Hacking

Transparencia
en
Investigacion
en las
Ciencias
Sociales
Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros
Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing

Conclusion

Define the problem:

- Also called fishing, researcher degrees of freedom, or data-mining.
- Definition: flexibility in data analysis allows portrayal of *anything* as below an arbitrary p-value threshold; significance loses its meaning.
- Not something only evil people do. It's subconscious, or simply built into statistics (Gelman, Loken 2013).



P-Hacking is fun!

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

- “Science isn’t Broken” —538 journalism piece with interactive demo [Link](#)
- Train your p-hacking skills R/Shiny App. [Link](#)
- An Exact Fishy Test [Link](#)

ONE DATA SET, MANY ANALYSTS

Twenty-nine research teams reached a wide variety of conclusions using different methods on the same data set to answer the same question (about football players' skin colour and red cards).

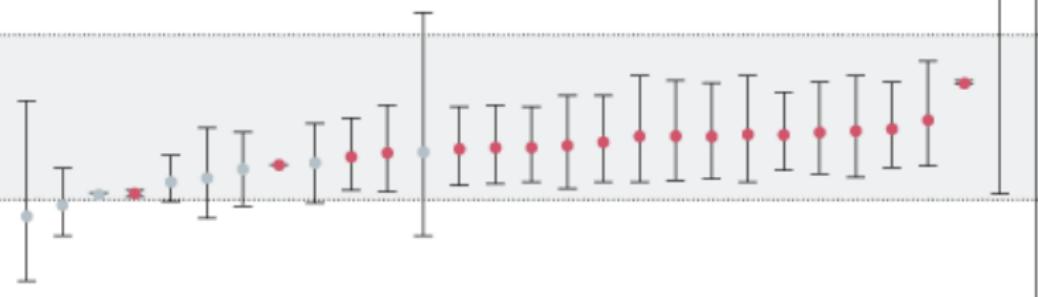
Dark-skinned players four times more likely than light-skinned players to be given a red card.

- Statistically significant effect
- Non-significant effect

Twice as likely

Equally likely

78.7*
115*



Point estimates and 95% confidence intervals. *Truncated upper bounds.



BERKELEY INITIATIVE FOR TRANSPARENCY
IN THE SOCIAL SCIENCES

Transparencia
en
Investigación
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigación
Científica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Pre-Analysis Plan

Explain the solution:

- 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. Researchers are encouraged to develop and upload such a plan with their study registration, but it is not required for registration.”

Origin: FDA's Guidance for Industry

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

“E9 Statistical Principles for Clinical Trials” (1998) ▶ [Link](#)

§V Data Analysis Considerations

- 1 Prespecification of the Analysis
- 2 Analysis Sets
- 3 Missing Values and Outliers
- 4 Data Transformation
- 5 Estimation, Confidence Intervals, and Hypothesis Testing
- 6 Adjustment of Significance and Confidence Levels
- 7 Subgroups, Interactions, and Covariates
- 8 Integrity of Data and Computer Software Validity

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros
Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing
Conclusion

Running Randomized Evaluations

- 1 the main outcome measures,
- 2 which outcome measures are primary and which are secondary,
- 3 the precise composition of any families that will be used for mean effects analysis,
 - Explain mean effects, FWER, FDR using Anderson (JASA 2008).
- 4 the subgroups that will be analyzed,
- 5 the direction of expected impact if we want to use a one-sided test, and
- 6 the primary specification to be used for the analysis.

McKenzie Suggestions

Transparencia
en
Investigación
en las
Ciencias
Sociales

Hojas

Introducción

Ética en la
Investigación
Científica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replicación

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

World Bank Development Impact Blog

- 1 Description of the sample to be used in the study
- 2 Key data sources
- 3 Hypotheses to be tested throughout the causal chain
- 4 Specify how variables will be constructed
- 5 Specify the treatment effect equation to be estimated
- 6 What is the plan for how to deal with multiple outcomes and multiple hypothesis testing?
- 7 Procedures to be used for addressing survey attrition
- 8 How will the study deal with outcomes with limited variation?
- 9 If you are going to be testing a model, include the model
- 10 Remember to archive it

Examples

Transparencia
en
Investigacion
en las
Ciencias
Sociales
Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros
Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing

Conclusion

- J-PAL Hypothesis Registry (11), see <http://www.povertyactionlab.org/Hypothesis-Registry>
6 published papers:
 - Sierra Leone CDD, Oregon Medicare, Turkey Job Training, El Salvador TOMS, two in Indonesia (Olken et al.)
 - Psychology: Hawkins, Fitzgerald, Nosek—Conception Risk and Prejudice

Wide range of when exactly to write and how detailed to make the plan. At the extreme level of detail you would have your entire code already written before you got any data.

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 ⁺
Everybody had equal say in deciding how to use the tarp	0.51	-0.11 ⁺
Community used the tarp (verified by physical assessment)	0.90	-0.08 ⁺
Community can show research team the tarp	0.84	-0.12*
Respondent would like to be a member of the VDC	0.36	-0.04*
Respondent voted in the local government election (2008)	0.85	-0.04*
Panel B: GoBifo “strengthened” institutions		
Community teachers have been trained	0.47	0.12 ⁺
Respondent is a member of a women’s group	0.24	0.06**
Someone took minutes at the most recent community meeting	0.30	0.14*
Building materials stored in a public place when not in use	0.13	0.25*
Chiefdom official did not have the most influence over tarp use	0.54	0.06*
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*
Correctly able to name the year of the next general elections	0.19	0.04*



THE PREREGISTRATION CHALLENGE

Learn more at cos.io/prereg

PAP–Observational Studies

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

- Debated in public health/epidemiology.
- Difficult, but not impossible, to verifiably pre-specify.
- Example: Government data releases
- Example: Minimum Wage (Neumark 2001)

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.



Replication

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans

P-Hacking
Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

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.

Project Protocol, Reporting Standards

Transparencia
en
Investigacion
en las
Ciencias
Sociales
Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Make sure you report everything another researcher would need to replicate your research.

- Find the appropriate reporting standard for your field and follow it: <http://www.equator-network.org>
- Report the nuts and bolts of the project implementation in a detailed protocol:
<http://www.spirit-statement.org>
- Transparency and Openness Promotion (TOP) Guidelines: <http://cos.io/top>

SHARE[POLICY FORUM](#) | [SCIENTIFIC STANDARDS](#)

Promoting an open research culture



B. A. Nosek*, G. Alter, G. C. Banks, D. Borsboom, S. D. Bowman, S. J. Breckler, S. Buck, C. D. Chambers, G. Chin, G. Christensen, M. Contestabile, A. Dafoe, E. Eich, J. Freese, R. Glennerster, D. Goroff, D. P. Green, B. Hesse, M. Humphreys, J. Ishiyama, D. Karlan, A. Kraut, A. Lupia, P. Mabry, T. Madon, N. Malhotra, E. Mayo-Wilson, M. McNutt, E. Miguel, E. Levy Paluck, U. Simonsohn, C. Soderberg, B. A. Spellman, J. Turitto, G. VandenBos, S. Vazire, E. J. Wagenmakers, R. Wilson, T. Yarkoni

+ Author Affiliations

*Corresponding author. E-mail: nosek@virginia.edu

Science 26 Jun 2015:
Vol. 348, Issue 6242, pp. 1422-1425
DOI: 10.1126/science.aab2374



Workflow

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

“Reproducibility is just collaboration with people you don’t know, including yourself next week”
—Philip Stark, UC Berkeley Statistics

Workflow

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

- Practical coding and organizational suggestions
 - Making any changes to a file that has been posted/shared means it gets a new name.
 - Use version commands to ensure others get same results.
 - Long (2008) *The Workflow of Data Analysis Using Stata*
- Literate programming (extensive commenting, making the aim of code reading by a human)
- Version Control
- Dynamic Documents

Version Control

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

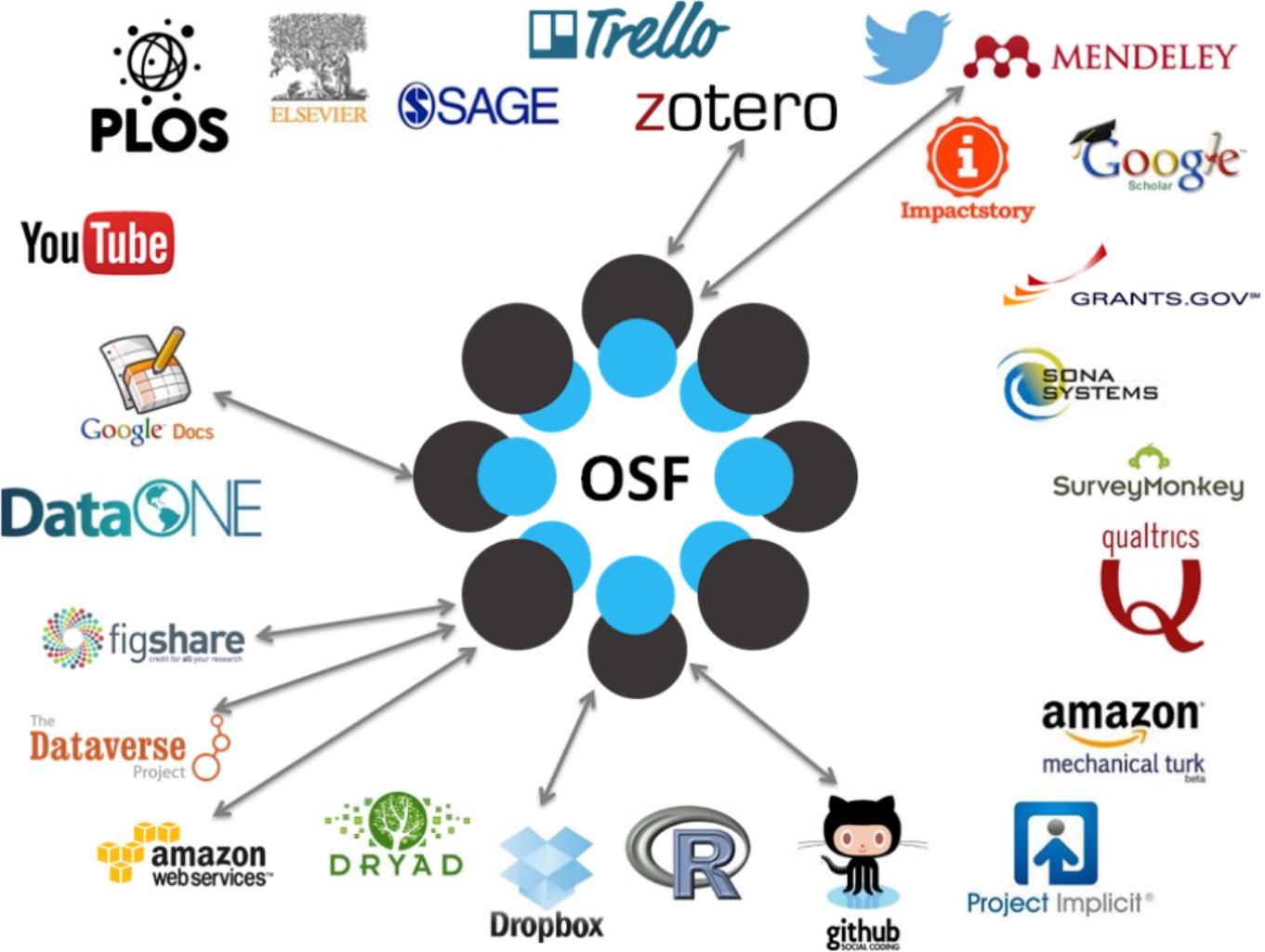
Conclusion

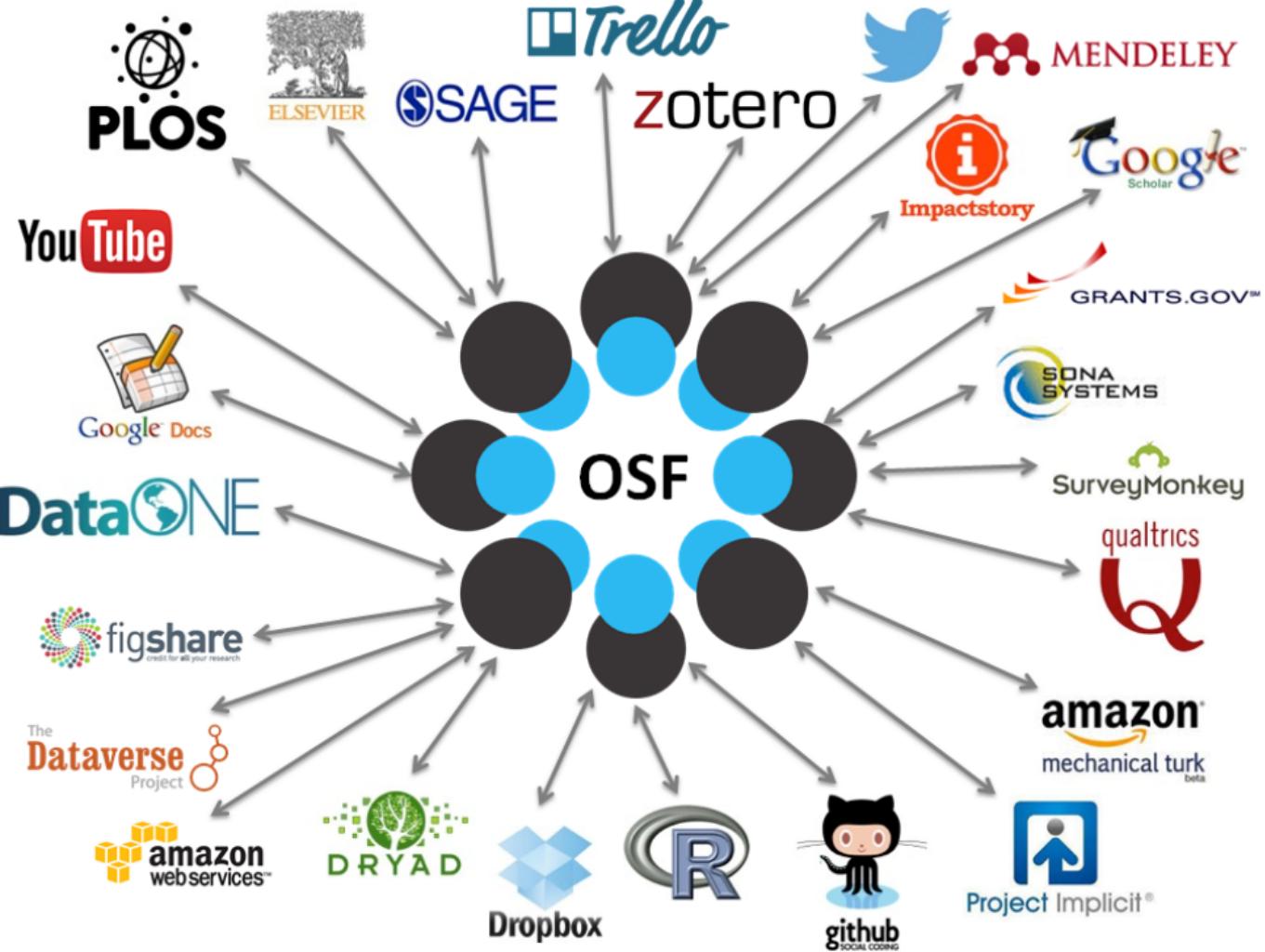
- Using version control (AKA revision control) can help to make your work more reproducible.
- What is version control?

Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later. For the examples in this book you will use software source code as the files being version controlled, though in reality you can do this with nearly any type of file on a computer.

–Git, About Version Control







Dynamic Documents

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hojas

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans

P-Hacking
Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Write your code and your paper in the same file so you won't lose information or make copy and paste mistakes.
Possible in R and Stata.

- Include tables by linking to a file, instead of a static image.
- Include number by linking to a value calculated by an analysis file, instead of a static number typed manually.
- Automatically update tables and numbers.
- Produce entire paper with one or two clicks.

The logo for Jupyter consists of the word "jupyter" in a bold, black, sans-serif font. It is centered within a white circle. Above and below the circle are two thick, orange, curved bands that resemble the top and bottom edges of a smile. Small dark gray circles are positioned at the intersections of these curves with the circle.

jupyter





Data Sharing

Transparencia
en
Investigacion
en las
Ciencias
Sociales
Hoces

Introducción
Etica en la
Investigacion
Cientifica

Registros
Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing

Conclusion

Post your code and your data in a trusted public repository.

- Find the appropriate repository:
<http://www.re3data.org/>
- Repositories will last longer than your own website.
- Repositories are more easily searchable by other researchers.
- Repositories will store your data in a non-proprietary format that won't become obsolete.



Conclusion

Transparencia
en
Investigacion
en las
Ciencias
Sociales
Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

OK, I'm convinced. How do I implement this in my own research?

- Read the manual I wrote. [▶ Link](#)
- Subscribe to the BITSS blog & E-mail list [▶ Link](#)
- Apply for our NIH Summer Institute. [▶ Link](#)
- Apply for our SSMART Grants (extra funding for developing country researchers). [▶ Link](#)
- Apply for our Leamer-Rosenthal Prizes. [▶ Link](#)
- Free stats consulting from COS. [▶ Link](#)

Summer Institute

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans

P-Hacking
Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing

Conclusion

Three days of training in June at UC Berkeley, or two days of training in July at the University of Michigan.



SSMART Grant

Transparencia en
Investigacion en las
Ciencias Sociales
Hoces

Introducción

Etica en la
Investigacion Cientifica

Registros

Sesgo de
Publicación
Registros

Pre-Analysis
Plans
P-Hacking
Pre-Analysis Plan

Replication
Project Protocol,
Reporting Standards
Workflow
Version Control
Data Sharing
Conclusion

Up to \$30,000 grant for a research project on:

- Develop new methodology
- New tools and approaches for meta-analysis
- Research on researchers and adoption of new norms

Extra funding source for researchers from developing countries.



Leamer-Rosenthal Prizes

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Up to \$10,000 prize for completed transparent research in the social sciences, especially:

- Economics
- Political Science
- Psychology



Edward Leamer



Robert Rosenthal



BERKELEY INITIATIVE FOR TRANSPARENCY
IN THE SOCIAL SCIENCES

Transparencia
en
Investigacion
en las
Ciencias
Sociales

Hoces

Introducción

Etica en la
Investigacion
Cientifica

Registros

Sesgo de
Publicación

Registros

Pre-Analysis
Plans

P-Hacking

Pre-Analysis Plan

Replication

Project Protocol,
Reporting Standards

Workflow

Version Control

Data Sharing

Conclusion

Questions?

Thank you!