Berkeley Initiative for Transparency in the Social Sciences

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Foundational scientific norms

- **Mertonian Norms (1942)** the most influential articulation of the norms and "ethos" of scientific research (>4000 Google Scholar citations).

- Grounded in an understanding of scientific research as embedded in social structures and institutions.

- A set of norms that are "*binding, not only because they are procedurally efficient, but because they are believed to be right and good. They are moral as well as technical prescriptions.*" (p. 270)

Mertonian Norms (1942)

Four core values:
1. Universalism
2. Communality
3. Disinterestedness
4. Organized skepticism

Where did this "culture" come from? Some argue that seeds of the research university lie in the practices of medieval European monastic scholars (W. Clark 2006).

1. Universalism

"*The acceptance or rejection of claims ... is not to depend on the personal or social attributes of their protagonist.*"

Research findings as fundamentally "impersonal".

"*When the larger culture opposes universalism, the ethos of science is subjected to serious strain.*" (p. 271)

"*Universalism finds further expression in the demand that careers be open to talents.*" (p. 272)
  ➢ Link between democracy and scientific progress?

2. Communality

"*The substantive findings of science are a product of social collaboration and are assigned to the community.*" (p. 273).

Open sharing of scientific knowledge: "*Secrecy is the antithesis of this norm; full and open communication its enactment.*" (p. 274)
"*The communism of the scientific ethos is incompatible with the definition of technology as private property in a capitalistic economy.*" (p. 275)

Different norms for academic vs. corporate researchers, although the distinction has eroded (e.g., Silicon Valley)

3. Disinterestedness

Researchers should be motivated by identifying the truth rather than self-interested professional or monetary motivations.

"*A passion for knowledge, idle curiosity, altruistic concern with the benefit to humanity, and a host of other special motives have been attributed to the scientist*" (p. 276).

Merton argues these are due to the institutional constraints and checks within which researchers operate rather than to any "*unusual degree of moral integrity*"

4. Organized Skepticism

"Involving as it does the verifiability of results, scientific research is under the exacting scrutiny of fellow experts. ... The activities of scientists are subject to rigorous policing, to a degree perhaps unparalleled in any other field of activity." (p. 276).

The ability to verify data and scrutinize claims is thus critical for research to live up to its own standards.

"The scientific investigator does not preserve the cleavage between the sacred and the profane, between that which requires uncritical respect and that which can be objectively analyzed." (p. 277-8)

Mertonian Norms (1942)

Openness, integrity and transparency are at the heart of Merton's articulation of scientific research norms: the free communication and sharing of findings, and the ability of other scholars to access and verify results.

How closely do real-world researchers today conform to these ideal standards of conduct?
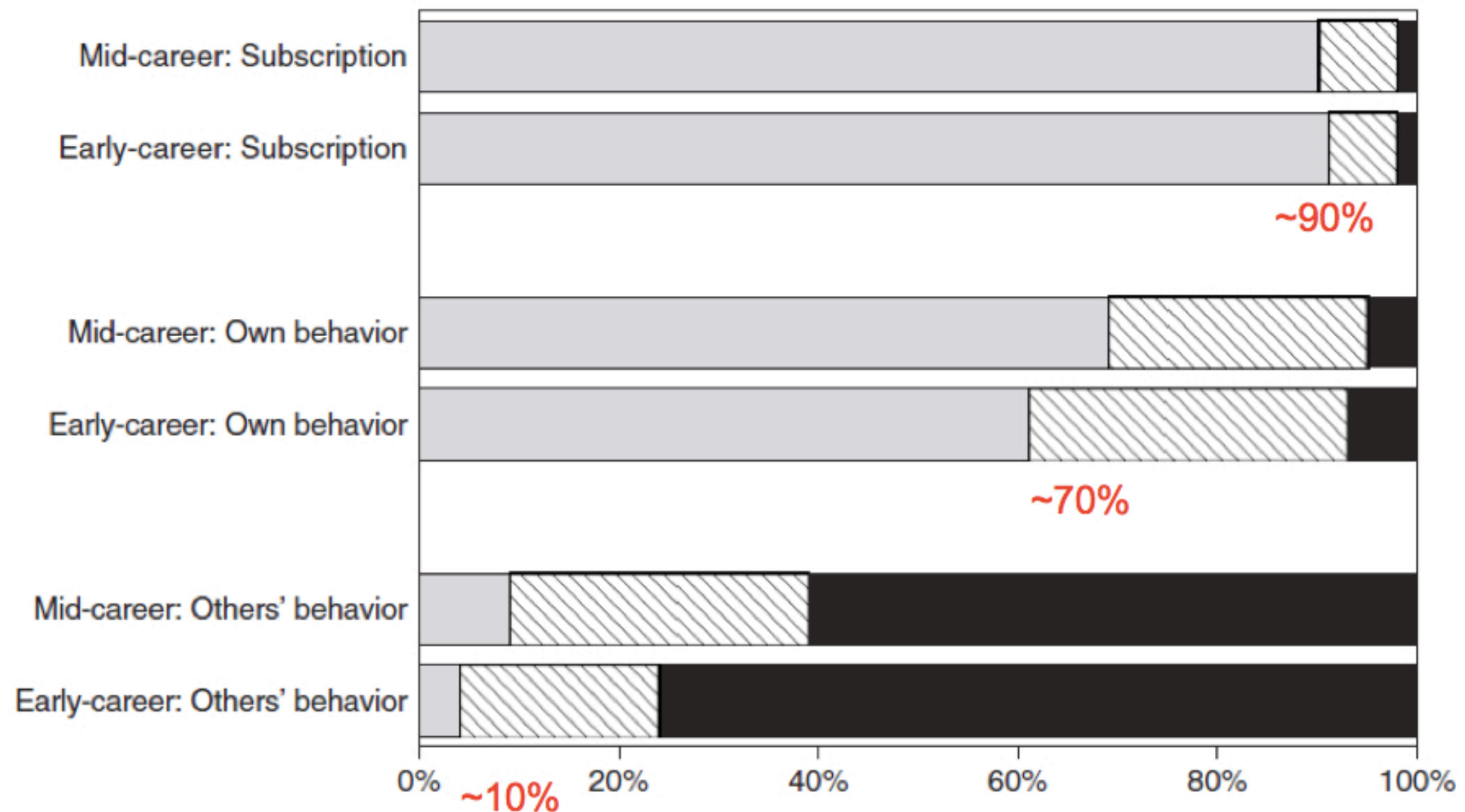
There is reason to worry

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

Anderson, Martinson, De Vries 2007

Crisis in social sciences

Economics Has a Replication Problem

By Ross Pomeroy

SCIENCE

SOCIAL SCIENCE

June 5, 2015 12:22 p.m.

Will Academia Waste the Micha
Scandal?

By Drew Foster

Share

tudes Toward Same-Sex Marriage
a Scientific Journal

MONEY & MARKETS

2 economists tried to replicate a bunch of
published economic studies, and the results
were disturbing

MIKE BIRD | OCT 8 2015, 12:34 AM | 3065

FACEBOO 2829   TWITTER   REDDIT 79   LINKEDII 157   GOOGLE+

but the extent of the issue is still hard to nail dow

5.4k

Forbes / Science

JUN 1, 2015 @ 03:22 PM   8,387 VIEWS

Why The Retracted Gay Marriage Study Matters

BITSS   CEGA

Response to the crisis
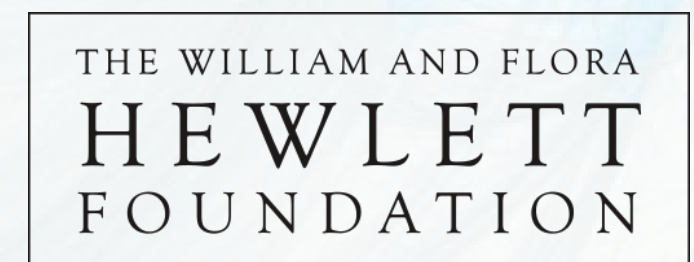
www.bitss.org @ucbitss

BITSS is a pioneer

The Berkeley Initiative for Transparency in the Social Sciences (BITSS) was established in 2012 by UC Berkeley's Center for Effective Global Action (CEGA) **to strengthen the quality of social science research and evidence used for policy-making,** by enhancing the practices of economists, psychologists, political scientists, and other social scientists.

What do we do?

Norms + Consensus	Build standards of openness, integrity, and transparency
Tools + Resources	Identify, fund, and develop tools and resources
Education	Deliver coursework for students, faculty, and researchers through our network.
Research	Understand the problem, explore solutions, and monitor progress
Recognition	Reward exceptional achievements in the advancement of transparent social science.

Changing Norms + Building Consensus

- Transparency and Openess Promotion (TOP) Guidelines developed and published, with over 530 journals signed on

- BITSS Blog

- Launched the BITSS Catalyst Program

BITSS Catalyst Program

- Target current graduate students, academic faculty, and other researchers in the social sciences who are committed to changing norms by educating the current and next generation of social science researchers on transparency tools and practices.

- *Let us know if you're interested to join*

Tools + Resources

- New BITSS.org website that connect you to our network, research and resources

- Includes: Links to registries; library of slideshows and lectures; Manual of Best Practices; Software resources

Research

- Social Science Meta-Analysis and Research Transparency (SSMART) grant program, $450,000 in funding

- 2015 –10 selected projects; 2016 – 8 selected projects

- Growing internal capacity, publications by BITSS research staff (e.g., *PLoS One*)

Recognition

- 2015 - Ten recipients of the inaugural Leamer-Rosenthal Prize for Open Social Science

- Cash awards of $10-$15K to individuals who are providing leadership through their research and/or practice on research transparency and reproducibility

- 2016 - Call for Nominations just announced

Education

- BITSS Summer Institute with 35-40 participants annually from across social sciences –today is our third Institute!

- Semester-long course on transparency available online

- Over 150 participants in international workshops in Kenya, Zambia, UK

This Institute

- Understand the broad problems/challenges. Scientific misconduct and p-hacking/researcher degrees of freedom

- Discuss best practices and tools. Pre-registration, pre-analysis plans (PAPs), transparent reporting and disclosure, meta-analysis, replication and the scientific process, and hands-on training on tools

- Discuss emerging challenges. Data de-identification for transparency & reproducibility, etc

This Institute

Materials	• https://osf.io/qh2nr/
Reception	• Thursday 5-6pm
Evaluations	• Please complete at end of each day – We want to learn from you!
Twitter	• @UCBITSS • #BITSS2016