# **Replicability Project: Cancer Biology**

Systematic sampling of 51 high-impact preclinical cancer biology papers

Completely open preregistration, data, materials: <a href="https://osf.io/e81xl/">https://osf.io/e81xl/</a>

Registered Reports with eLife



Question: For how many papers/experiments was all data available in the paper or a repository?

0 of 51 papers (0%)

3 of 197 experiments (2%)

Question: For how many papers/experiments could we design a full protocol based on the paper and no input from the original author(s)?

0 of 51 papers (0%)

0 of 197 experiments (0%)

# Norms

# Counternorms

# **Communality**

Open sharing

#### Universalism

Evaluate research on own merit

#### Disinterestedness

Motivated by knowledge and discovery

## **Organized skepticism**

Consider all new evidence, even against one's prior work

# Quality

### Secrecy

Closed

#### **Particularlism**

Evaluate research by reputation

#### **Self-interestedness**

Treat science as a competition

# **Organized dogmatism**

Invest career promoting one's own theories, findings

# Quantity

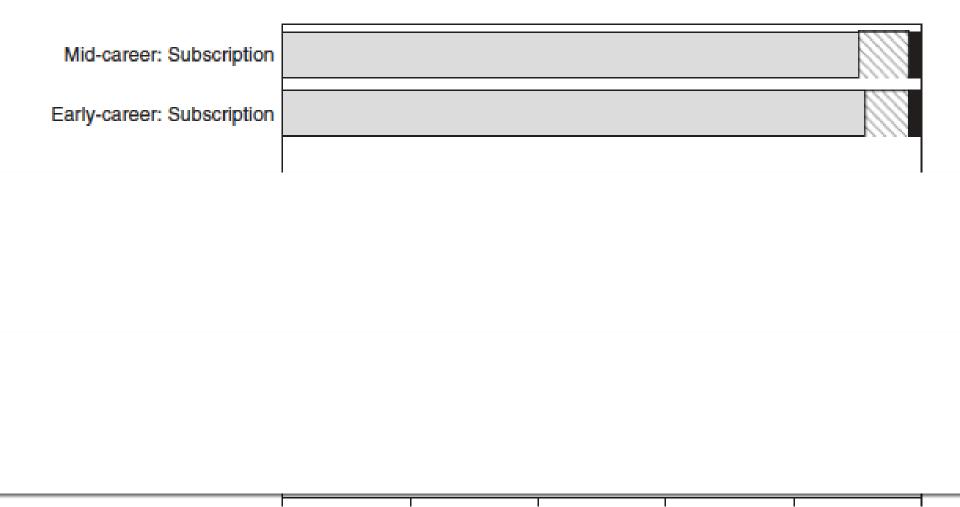


FIG. 3. Norm versus Counternorm Scores: Percent with Norm > Counternorm (dotted), Norm = Counternorm (striped), Norm < Counternorm (solid).

40%

20%

0%

60%

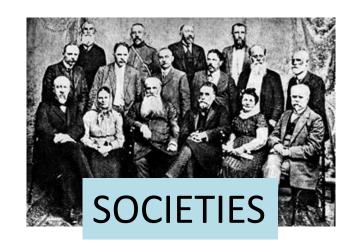
80%

100%

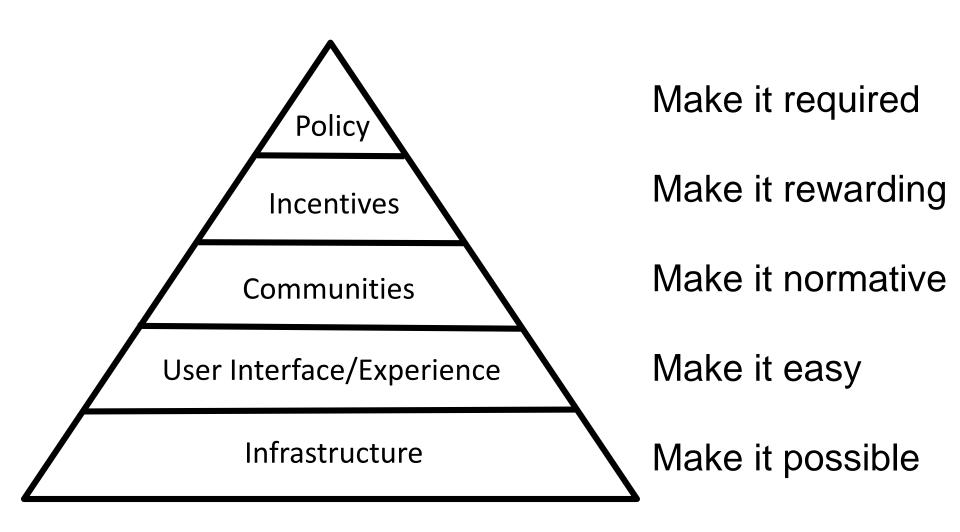




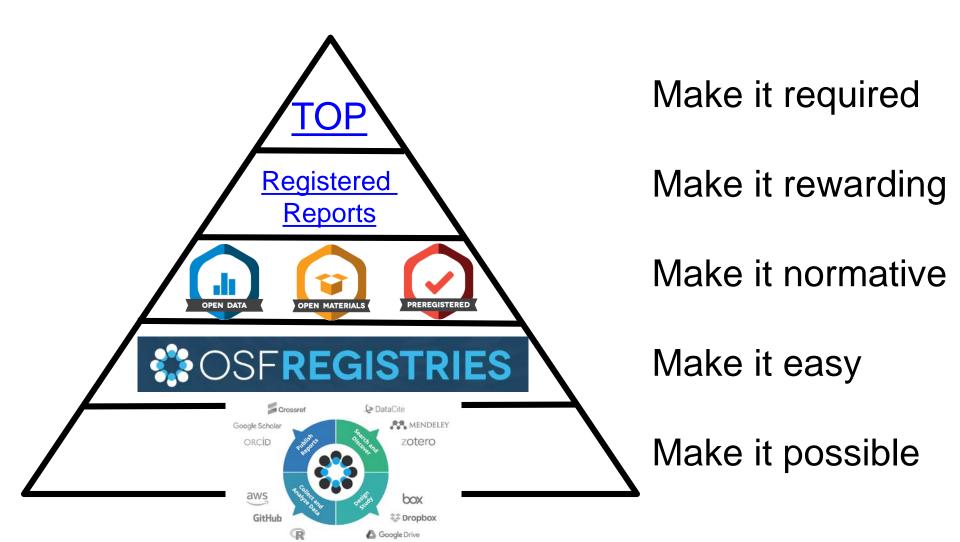




# Changing a Research Culture



# Changing a Research Culture



# **Number of OSF Study Registrations**

