**Improving Psychological Science Brainstorming Notes**

**May 26, 2015**

**Questions:**

Is Psychological Science Getting Better?

Is the movement to improve psychological science working?

Are we running better-powered studies?

Are we using fewer questionable research practices?

**Measures:**

***Power-related:***

Average Sample Size Per Study

A Priori Power Analysis?

Post Hoc Power?

***Fishing Expedition-related:***

p-curve – test of p-hacking

Test for Excess Success – compares estimates of statistical power with the reported frequency of desirable outcomes (small p-values if researchers expect to reject null OR bigger p-values if researchers expect to fail to reject null)

R-Index – can give a sense of the strength of the findings and likelihood replication by examining obtained power

Test for Insufficient Variance (TIVA) – can help determine whether published p-values were obtained with the help of questionable research practices by converting p-values to z-scores. If the converted z scores are < 1, then there is insufficient variance and non-significant results may have been quashed. Biggest limitation is when there is only a small set of studies. Also… not sensitive when there is substantial heterogeneity of noncentrality parameters.

Average Number of Covariates (and, are they the same across studies?)

Proportion of Participants Excluded

Others?

**Sample**

Psychological Science 2011-2014

JPSP 2011-2014

PSPB 2011-2014