

Methods for Transparent and Reproducible Social Science Research

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Abstract

The social sciences, particularly economics, political science, and psychology, have all taken their turn in the spotlight recently for failures of reproducibility of prominently published research. This article reviews the problems and discusses recent developments and proposed solutions. The problems of publication bias, specification searches (also called data mining or p-hacking), and failures to replicate published research have been known for decades, but a recent surge of research has documented that the problems are still quite prevalent. This has led to a spate of proposed solutions, including study registration, pre-registration of statistical analysis plans, results-blind reviewing, disclosure checklists, and journal requirements of data and code sharing. New methodological tools to test for publication bias, as well as

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more established tools such as meta-analysis and multiple hypothesis testing adjustment, have become more widely adopted. Lastly, technological improvements such as version control and dynamic documents have made a reproducible research workflow much simpler.