

Research Statement

Background

My PhD and initial post-graduate work centered on developing policy analysis transparency frameworks and tools to enhance computational reproducibility in research [Hoces de la Guardia et al., 2021, Brodeur et al., 2025]. This experience, combined with my pre-doctoral work, motivated my current research agenda: the standardization of results in economics and its use to study the under-reporting of research findings. This statement outlines the current project, which resulted in my job market paper, and a concrete path forward to build upon it. The overarching motivation is to study and test innovations that strengthen the evidence-to-policy link. While this meta-analytic agenda is compatible with most fields in economics and public policy, its initial application to randomized controlled trials (RCTs), coupled with my personal interest, has positioned me well for work in applied microeconomics, particularly development, behavioral, or public economics.

Job Market Paper: Quantifying The Size of The File Drawer in Economics and Running an RCT to Identify Solutions

My job market paper (JMP), “Beyond Publication Bias: Characterizing and Understanding Missing Results in Economics,” introduces a novel, quantitative measure of under-reporting in pre-registered randomized controlled trials in economics (RCT) and tests, through its own RCT, what are the binding constraints that prevent researchers from reporting on all pre-registered hypotheses. We developed a methodology for standardizing and tracking hypotheses for a sample of studies in the the American Economic Association (AEA) RCT Registry.

Building a unique dataset of over 5,000 pre-registered hypotheses from 318 studies, we find that 58% of hypotheses have no publicly available results 8 to 9 years after pre-registration. Furthermore, and counter to the conventional wisdom of publication bias, we estimate that two-thirds of the publicly available findings are null results. This indicates that under-reporting is a far more complex challenge than simple reluctance to publish non-significant findings.

To identify the main constraints that prevent researchers from reporting on all pre-registered hypotheses, we conducted an RCT testing interventions focused on *awareness*, *engagement*, and *resource constraints*. Our results show that only the engagement intervention—a relatively low-cost, tailored outreach to authors regarding their specific missing findings—significantly boosted reporting, leading to the recovery of results for 10% of missing hypotheses and clear explanations for an additional 17%. In contrast, neither basic awareness messages nor the provision of research assistant resources had a significant effect on reporting. The awareness intervention did have a positive, but smaller in magnitude, effect on recovering explanations for non-available results. We conclude that, despite the establishment of the AEA RCT Registry in 2013, there is still need for stronger incentives and infrastructure to ensure that pre-registered scientific plans translate into publicly accessible evidence.

Future Research Agenda

My future research builds directly on the findings and data described previously, applying meta-analytic and experimental methods to address key constraints in the reporting of results

in research.

Short-Term: Large Language Models and the Accuracy-Costs Tradeoffs of Standardization. We will leverage our existing dataset to test the feasibility of automating hypothesis standardization using Large Language Models (LLMs). Understanding the scope for automation of this standardization process, is key to expand the most effective interventions from our RCT providing a cost effective to boost the reporting of scientific results at scale. A proposal for this project is currently under review by Open Philanthropy.

In addition to this core short term project, our data collection enables several high-value, immediate projects. A non-exhaustive list includes: (1) Investigating a potential spillover from our interventions into the network of researchers in the treatment arms¹, (2) Identifying a specific literature within our sample (e.g., cash transfers or early childhood interventions) to compare model predictions for the probability of results publication conditional on statistical significance [Andrews and Kasy, 2019] with the true availability of results observed in our data, and (3) Implementing a large-scale multiple hypothesis correction for all studies in our sample using the true number of original hypotheses in the pre-registrations.

Medium-Term: Additional Meta-RCTs for Institutional Adoption. A logical extension of our paper is to collaborate with journals and funding organizations to test the causal impact of institutional adoption of standardized reporting templates developed for our project, called Results Reports, on researcher compliance. Running a new RCT to test both the Awareness (low cost and easy to implement) and Engagement (conditional on scalability results from the LLM project) interventions on current registrations is both feasible and relevant for informing the external validity of our findings. One of our team members (Prof. Miguel) is currently on the board of the AEA Registry and can help facilitate for the implementation of this second RCT as a pilot in the registry.

Our work on standardizing results for RCTs in economics can lay the foundation for a broader methodological evolution, mirroring the trajectory of medicine and public health, where standardization (which began with clinical trials) is now ubiquitous for most types of empirical research². Beyond RCTs, a new research project (analogous to the one behind my JMP) could study the implementation of standardization in quasi-experimental and descriptive research. Results Reports in this context could nudge authors to explicitly articulate their final hypotheses, underlying assumptions, and populations of interest in a format that facilitates comparison and aggregation of studies, moving the field away from individual studies that report drastically different measurements on *the same* empirical quantities³.

¹See pre-analysis plan in the AEA registry: <https://doi.org/10.1257/rct.13755-2.1>

²Different fields implement standardization in different ways, accommodating different methods and norms of reporting. See for example <https://www.equator-network.org>

³Labeled as *Dueling Certitudes* by Manski [2013]. Recent example in Auten et al. [2024], Piketty et al. [2024].

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