

Preregistration as a Tool for Strengthening Federal Evaluation

Evaluation is a critical part of evidence-based policymaking. When we are transparent about evaluation methods and results, we make it possible for others to assess the reliability of the evidence that informs Federal programs and policies — and in this way we promote accountability and trust in government. Transparency can be implemented at various points in the course of an evaluation, no matter the size or scale of the evaluation or office. One key practice that can be implemented early in an evaluation is preregistration. Preregistration has the potential not only to *inform* about an evaluation underway, but also to *strengthen* the evaluation by helping to ensure that results are reproducible and mean what they are supposed to mean.

What is preregistration?

Preregistration means documenting and committing to a specific evaluation design and analysis plan before you gather and analyze data. Preregistration can take different forms. Sometimes it includes a full study design and a comprehensive plan for analyzing data, and sometimes it focuses on certain key elements such as research questions and outcomes to be analyzed. The basic purpose is to commit to (1) using specific methods and (2) reporting the results that come from those methods. Typically, a preregistration is posted in a public registry.

Why do it?

Preregistration has several important benefits:

- It helps to ensure that our results are reliable and mean what they are supposed to mean. Sometimes even experienced and well-meaning evaluators inadvertently look at the data several different ways and focus on just those outcomes or statistical tests that look interesting. This can lead to results that appear to be statistically significant but in fact are “false positives.” When we preregister, we avoid this trap by committing to specific methods in advance.
- Preregistration requires us to clearly document our methods, which is crucial to ensuring that evaluation results can be replicated and verified by others.
- Posting in a public registry means greater transparency and accountability. This, in turn, has several important benefits. One benefit is that it enables others to verify that we report our results, even if those results are unexpected or unfavorable. More broadly, greater transparency about the methods used in Federal evaluations can promote greater public trust that Federal programs and policies are based on sound evidence.
- Preregistration is also required by some academic journals, so preregistering an evaluation can expand the range of outlets in which it can later be published.

But I'm concerned that...

Some misconceptions about preregistration in Federal evaluation

Misconception: Preregistration will prevent me from doing exploratory analysis of my data.

Truth: Preregistration doesn't rule out exploratory analysis. Exploratory analysis is not only possible, it can be vital for discovering new effects or outcomes to be tested in future evaluations. Preregistration just commits us to reporting that the results came from exploratory analyses and need to be confirmed through further testing – so that claims of statistical significance aren't overstated or misinterpreted.

Misconception: Once I've posted a preregistration, I can't make changes. If something unanticipated happens that requires me to modify methods or revise my analysis plan, my hands will be tied.

Truth: Preregistrations can be updated if necessary. The most important thing is that updates are made and documented before you look at your outcome data, so that you don't inadvertently tailor your methods or outcomes of interest to get a certain result. Or, if you do revise your methods after seeing the data, the preregistration can be updated with a clear rationale for the change and provides a way to be transparent about whether the results were exploratory.

Misconception: Preregistration requires a public, third-party registry, and posting in a third-party registry will carry a large administrative burden.

Truth: Public, third-party registries certainly provide transparency and accountability. However, in cases where this isn't feasible, there are still meaningful steps that can be taken to pre-specify an evaluation design and analysis plan using internal mechanisms and agency-owned resources. This could mean posting on a public-facing, agency-owned website (as [OES](#) does) – or even posting in a non-public-facing repository that is available for audit by independent parties if needed.

Misconception: What if we get unfavorable results? We can't commit to reporting results without seeing them first, and null results are not very useful to others anyway.

Truth: In order to make government work better, it is vital to share knowledge about what doesn't work, as well as what does. The principle that even unfavorable results should be reported is already reflected in the evaluation policies of several large Federal agencies (for example, [HHS/ACF](#) and [Labor](#)), and preregistration is an important part of implementing this principle. Null results can spur conversations and lead to further learning about what works and what doesn't.

Misconception: Preregistration will cost the government money and be burdensome to staff and contractors.

Truth: A clear plan often saves time and money by ensuring that the research team has a clear focus and a shared understanding of methods. And because preregistration can take many forms, it can often be folded into an existing deliverable or project milestone.