(When) should you adjust inferences for multiple hypothesis testing?

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Abstract

The use of multiple hypothesis testing adjustments varies widely in applied economic research, without consensus on when and how it should be done. We provide a economic foundation for this practice. Adjustments are often – but not always – appropriate in our framework when research influences multiple policy decisions. These adjustments depend on the nature of scale economies in the research production function and on economic interactions between policy decisions, with control of classical notions of compound error rates emerging in some but not all cases. When research examines multiple outcomes, on the other hand, this motivates either very conservative testing procedures or aggregating outcomes into sufficient statistics for policy-making.

Older draft (we are currently substantially revising it): https://arxiv.org/abs/2104.13367