

Foundations of Causal Inference:
Understanding and Misunderstanding Randomized Controlled Trials

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Summary

Recently, random controlled trials are increasingly popular in the social sciences, such as in development economics. Many researchers hold the view that RCT, with unbiased estimation and no prior knowledge, is superior to other methods in terms of causal inference. However, in practice, the value of RCT is overvalued with lots of limitation. The best method depends on the specific questions and purposes we want to investigate. And there are lots of other things need to be done to ensure the estimation of RCT from a particular sample useful and serviceable.

Estimation of ATE

$$E[\bar{Y}_1] - E[\bar{Y}_2] = E[\bar{Y}_1 - \bar{Y}_2]$$