Ch. 13 and Ch. 14 Responses

Dylan Baker

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1   Ch. 13 Question Responses

1.1   Question 1

In what scenarios would it be appropriate to use 'As-Treated,' 'Intent-to-Treat (ITT),' or 'Local Average Treatment Effect (LATE)' analysis? Please illustrate with simple examples.

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You would use As-Treated when you are interested in the effect of the treatment on those who truly received it, e.g., if one is interpreted in the effect of a job training program on people who attended.

You would use ITT when you are interested in the effect of attempting to treat people, e.g., if you want to know the effect of an ad campaign.

You would use LATE when you are interested in the effect on people who would only comply with the treatment when assigned to it and not otherwise, e.g., if you are interested in the effect of a tutoring program on the subset of students who were offered it that decided to attend.

1.2   Question 2

With the information provided in the chapter, imagine you are replicating Dal Bó et al. (2018). Based on what you learned in the chapter, what precautions would you take, or what would you do differently to reduce noncompliance?

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If I suppose that I'm truly interested in the effect of updating people's beliefs, rather than the effect of the information treatment itself, then I may try to incentivize people to make sure that they pay attention to the details of the information treatment, increasing the chances that they update their beliefs. I may do a comprehension check to at least confirm that they understood what was being said, even if they don't fully buy into it. Perhaps swapping the treatment with something stronger, like having them watch the relevant games unfold (perhaps recorded), could increase the impact of the treatment on the beliefs of the subjects.

2   Main Takeaways

2.1   Ch. 13 Takeaways

1. Amid imperfect compliance, we may still be able to estimate the ITT and LATE, which, in some circumstances, may be a parameter of interest.

2. One-sided imperfect compliance occurs when either a subset of the treatment group fails to receive treatment or a subset of the control group receives treatment. Two-sided imperfect compliance occurs when both of these conditions are met.

3. Non-compliance can be attenuated within the design, such as by strategically placing incentives or minimizing complexity.

2.2   Ch. 14 Takeaways

1. We can test for failed randomization and should have a rerandomization mechanism in place so that we can employ randomization-conscious inference.

2. When randomization is compromised with full documentation, we can use tools from observational econometrics.

3. When randomization is compromised with only partial documentation, we must turn to proposing an economic model to advance with what knowledge we do have about the compromised randomization, as in the Perry Preschool Project.