Final Project

Applied Microeconometrics

November 11, 2020

Overview

- Your final assignment is to read, summarize. critique, and conduct simulations based upon a recent paper that makes a *methodological* contribution to the topics we have discussed. Below are a series of papers that you may consider.
- Please email Chris and Marcin with your choice as soon as possible. We will allow no more than two people to use the same paper, with priority to those who email first. You are welcome to propose a paper not on the list below, so long as it is sufficiently methodologically focused (which we will determine) and relevant to the course material.
- The due date is January 15th, 2021. You are welcome to turn it in earlier.

Assignment

There are three tasks. All three should be submitted in a single pdf with clear sections.

(1) Provide a technical summary of the paper. Clearly describe and state the main methodological results or implications in formal terms. Explain these results in as simple terms as possible and describe their importance. Your classmates should be able to read this summary and understand the basic point of the paper without any further research. There is no need to discuss every single result in the paper, nor to provide proofs. we expect this to be approximately the length of the introduction for a paper in an economics journal.

(2) Provide a one page critique of the paper. This can be in the format of a referee report or series of bullet points.

(3) Conduct a series of simulations which highlight the contribution of the paper. For example, you might show a situation in which estimation or inference is poor using standard methods, but performs well when the proposed methodology is implemented. Include at least two tables and two figures based upon your simulations. Please make these tables and figures publication quality.

Some Suggested Papers

- Inference in Regression Discontinuity Designs with a Discrete Running Variable (Kolesàr and Rothe, 2018)
- Difference-in-Differences with Variation in Treatment Timing (Goodman-Bacon, 2018)
- IsoLATEing: Identifying Counterfactual-Specific Treatment Effects with Cross-Stratum Comparisons (Hull, 2018)
- Using Instrumental Variables for Inference About Policy Relevant Treatment Parameters (Mogstad, Santos, and Torgovitsky, Econometrica 2018)
- Reconciling Seemingly Contradictory Results from the Oregon Health Insurance Experiment and the Massachusetts Health Reform (Kowalski, 2019)
- Estimation and Inference of Heterogeneous Treatment Effects using Random Forests (Athey and Wagner, JASA 2018)
- Design-based Analysis in Difference-In-Differences Settings with Staggered Adoption (Athey and Imbens, 2018)
- Matrix Completion Methods for Causal Panel Data Models (Athey, Bayati, Doudchenck, Imbens and Khosravi, 2018)
- Why High-order Polynomials Should not be Used in Regression Discontinuity Designs (Gelman and Imbens, JAE 2017)
- Regression Discontinuity in Time: Considerations for Empirical Applications (Hausman and Rapson, ARRE 2018)
- When Should you Adjust Standard Errors for Clustering (Abadie, Athey, Imbens, Wooldridge, 2017)
- Balancing, Regression, Difference-In-Differences and Synthetic Control Methods: A Synthesis (Doudchenko and Imbens, 2016)
- Quasi-Experimental Shift-Share Research Designs (Borusyak, Hull, Jaravel, 2018)