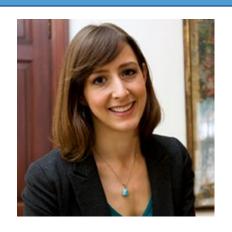# Internal versus external comparison groups for difference-in-differences studies

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Difference-in-differences (diff-in-diff) is a popular method for causal inference in observational settings. It requires outcomes of units exposed to the intervention (treated) and units not exposed to the intervention (control), both before and after the intervention. The key causal assumption is that pre- to post-intervention changes in the outcome of the treated and control groups would have been the same in the absence of treatment.

In some settings, we may be able to use comparison units from within the same market/region as the treated units. This could strengthen the plausibility of the causal assumption (because control units are subject to the same market forces), but may raise the concern that treated units are on different trajectories or that too many units were treated to leave a good pool of potential controls.

We address the question: under what conditions are out-of-market controls preferrable to within-market controls? We use simulations and real data analysis to show the combinations of within- and between-market variability and systematic selection forces that lead us to prefer one or the other. We give special attention to the impact of COVID-19 on policy evaluations and the challenges of the time- and space-varying impacts of the pandemic.

Thursday, JANUARY 27, 2022, 3:30-4:30PM Eastern – Virtual using link and info below.

Link: https://unc.zoom.us/j/98412143955?pwd=a1p6c3hvZ28wSnk3dVVXQWl0dEpzdz09

Meeting ID: 984 1214 3955 Passcode: 0375501630