

Homework 9

Environmental Economics II
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Problem 1 Stata

1. Yearly plot of the recycling rate for NYC and the control states

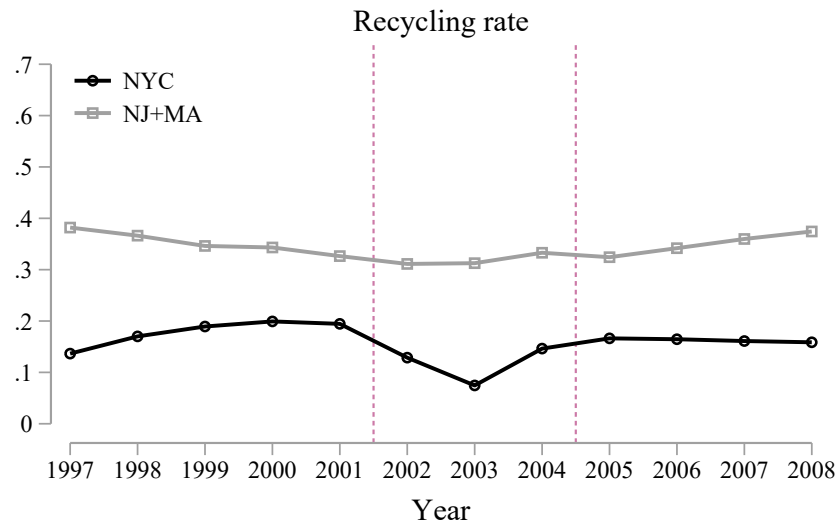


Figure 1: Treatment vs Control

2. Using a TWFE regression, the average treatment effect is -0.06198 with a standard error of 0.00582.
3. Using SDID command, the average treatment effect is -0.06436 with a standard error of 0.00679.

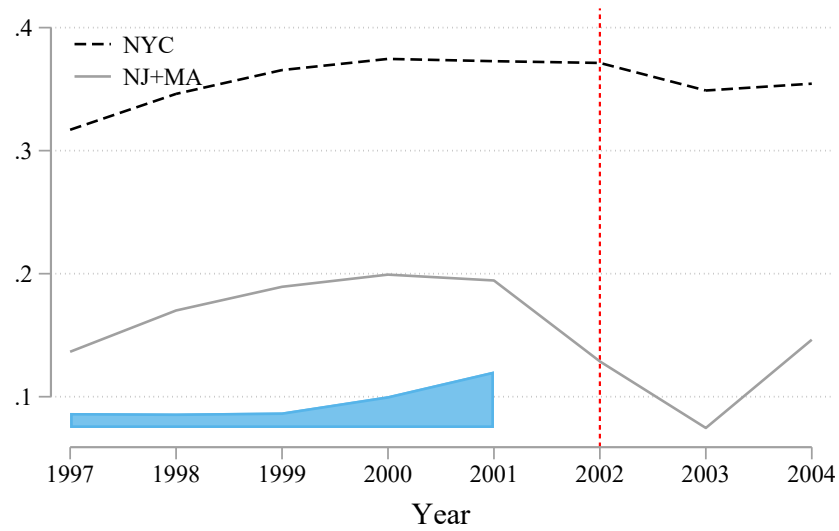


Figure 2: Synthetic DID Plot

4. Event study plot

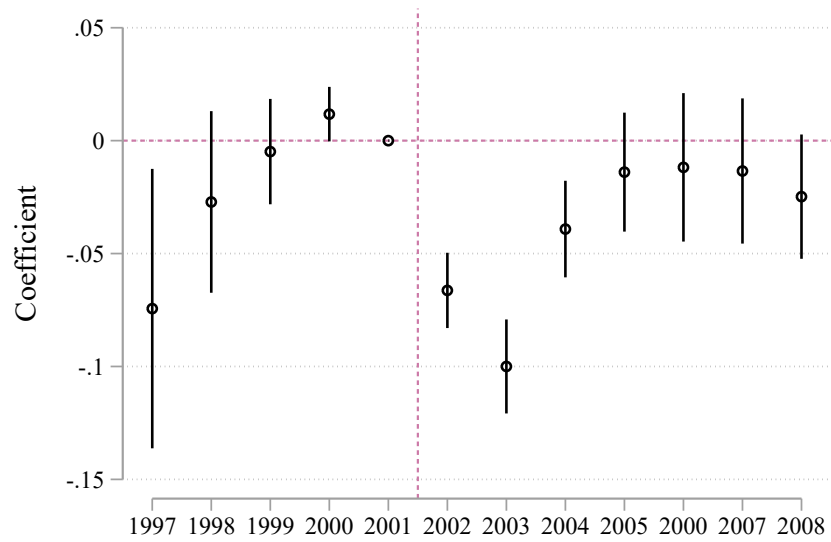


Figure 3: Event Study Plot

5. Synthetic Control, graph style following Brewer and Cameron (2023)'s replication code.

(a) Raw outcomes for treatment and controls

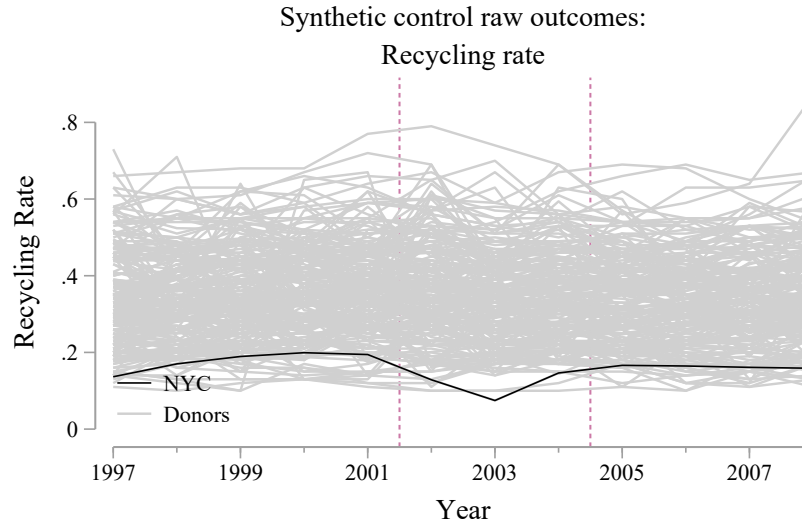


Figure 4: Raw outcomes for treatment and controls

(b) Raw outcomes for treatment and synthetic control

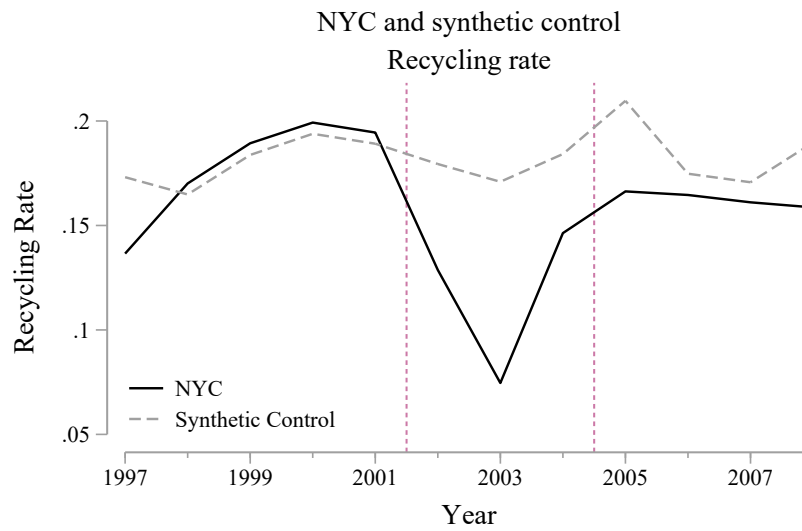


Figure 5: Raw outcomes for treatment and synthetic control

(c) Estimated synthetic control effects and placebo effects

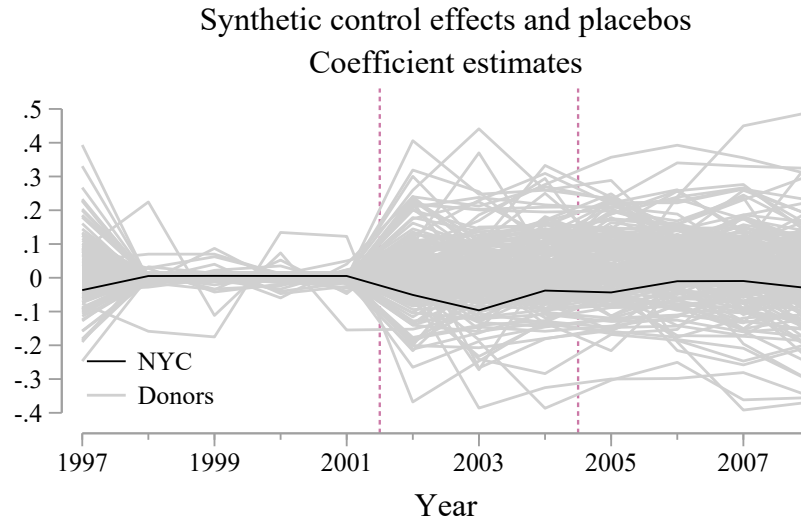


Figure 6: Estimated synthetic control effects and placebo effects

(d) Synthetic control estimates

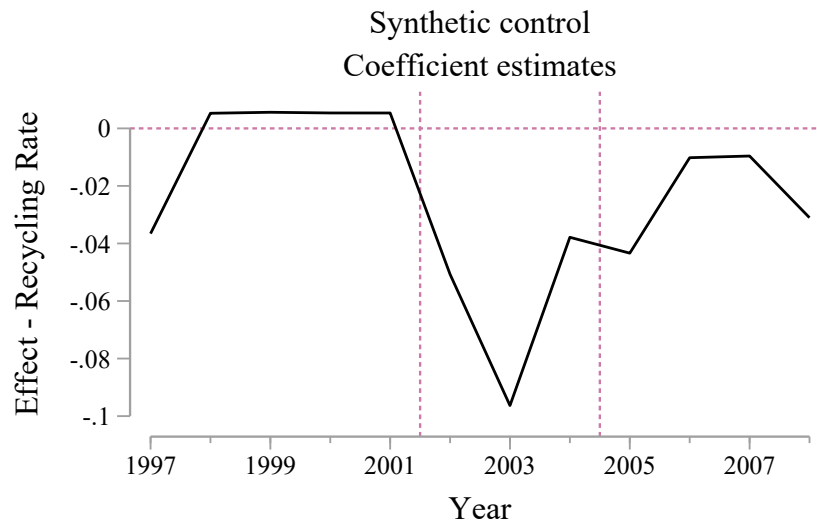


Figure 7: Estimated synthetic control effects and placebo effects