Adaptive Traffic Control Systems and Congestion: Evidence from Los Angeles

Margaret Bock, Brad Humphreys & Dinushka Paranavitana

Discussed by Alex Cardazzi

Overview

- LA converted the timing of many traffic lights from "rigid" to dynamic.
- Why should we care?
  - Relatively inexpensive
  - Should improve congestion/flow (which, in LA…)
- Method: Synthetic Control
- Result: Little change in 2013, 2014, but large change in 2015

Concerns

- Synthetic Los Angeles is heroic, especially w/ only 2 pre-periods.
- This SC appears "backwards" to me.
    - What happened in Fresno (23.7%) and Cotati (14.4%)?
    - Everything else is >4%, and only 3 <1%.

Suggestions

- PSM /DiD within LA County.
  - Intersection level.
- These ATCS suggest DWL of one direction.
  - Ex: Traffic pattern is 80% N/S, but light is only green 50% of time.
    - Calculate delay
  - ATCS is put in
    - Calculate new N/S %
    - Calculate new delay