

# **A few notes about decomposing the two way fixed effects estimator**

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# What is this?

## Objective

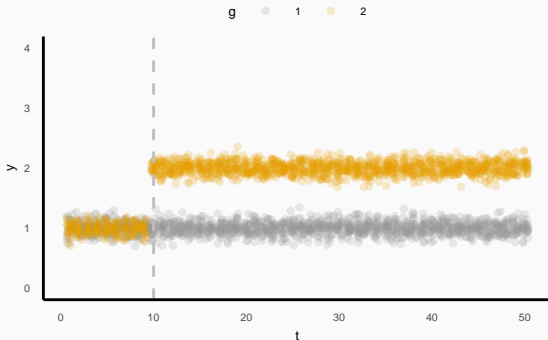
- Introduce the Chaisemartin & D'Haultfoeuille (forthcoming, AER; CD) & Goodman-Bacon (2019 WP; GB) decomposition of the two way fixed effects estimator and link them.

## Disclaimer

- The slides represent my understanding. It might be wrong and there will be mistakesg. Please let me know.
- There is **a lot** more in CD's and GB's papers.
- I don't discuss assumptions (!) and extensions.
- Please see the original papers.

# The traditional difference-in-differences (DD)

The running example



- $t$ : period,  $g$ : group,  $y$ : outcome,  $d$ : treatment indicator,  $g = 1$  is never treated,  $g = 2$  is treated from  $t = 10$ .

The traditional DD

