

# DiD: A short review

A famous paper by Card and Krueger (1994), investigates the following question:

- Does raising the minimum wage reduce employment?

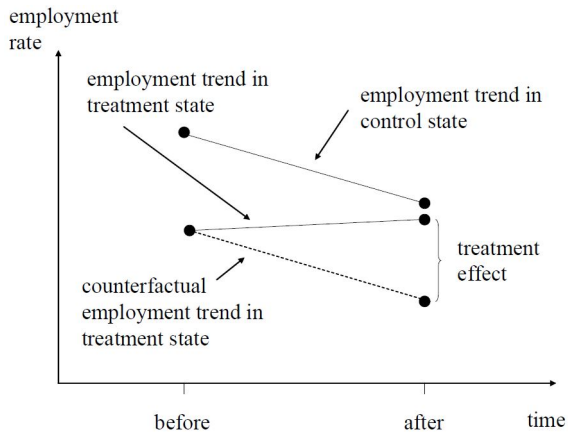
Regression: two “main” effects (time  $d_{Nov}$  and state  $NJ_s$ ) and one interaction

$$Y_{ist} = \alpha + \gamma \cdot NJ_s + \lambda \cdot d_{Nov} + \delta (NJ_s \cdot d_{Nov}) + \varepsilon_{ist}$$

where the treatment is  $D_{st} = NJ_s \cdot d_{Nov}$ .

	$d_{Nov} = 0$	$d_{Nov} = 1$	Difference
$NJ_s = 0$	$\alpha$	$\alpha + \lambda$	$\lambda$
$NJ_s = 1$	$\alpha + \gamma$	$\alpha + \gamma + \lambda + \delta$	$\lambda + \delta$
Difference	$\gamma$	$\gamma + \delta$	$\delta$

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The main identifying assumption of DiD:

- ▶ common/parallel “trends” in outcomes in treated and control groups.