

MICRO ECONOMETRICS IS GETTING IMPORTANT IN MACRO

- DSGE is based on microeconomic theory
- Micro level empirical research is also crucial in macroeconomics too.



III. Niklas Elmehed © Nobel Prize Outreach.

David Card

Prize share: 1/2



III. Niklas Elmehed © Nobel Prize Outreach.

Joshua D. Angrist

Prize share: 1/4



III. Niklas Elmehed © Nobel Prize Outreach.

Guido W. Imbens

Prize share: 1/4

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2021 was divided, one half awarded to David Card "for his empirical contributions to labour economics", the other half jointly to Joshua D. Angrist and Guido W. Imbens "for their methodological contributions to the analysis of causal relationships."

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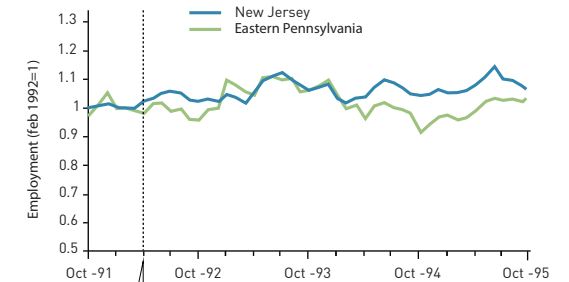
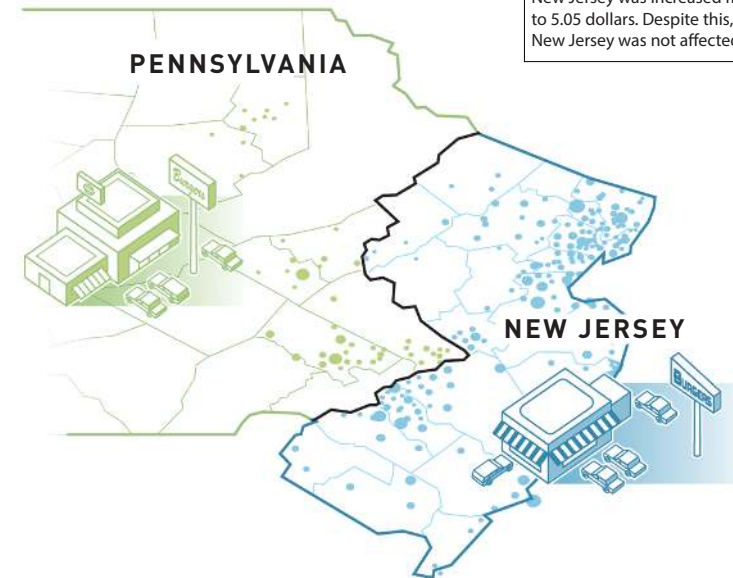
- Causal Inference
- Evidence Based Policy Making

The effect of increasing the minimum wage

Card and Krueger used a natural experiment to study how increasing the minimum wage affects employment.

The researchers identified a treatment group (restaurants in New Jersey) and a control group (restaurants in eastern Pennsylvania) to measure the effect of increasing the minimum wage.

● CONTROL GROUP ● TREATMENT GROUP



1 April 1992: The hourly minimum wage in New Jersey was increased from 4.25 dollars to 5.05 dollars. Despite this, employment in New Jersey was not affected.

Natural Experiments in Macroeconomics

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April 10, 2015

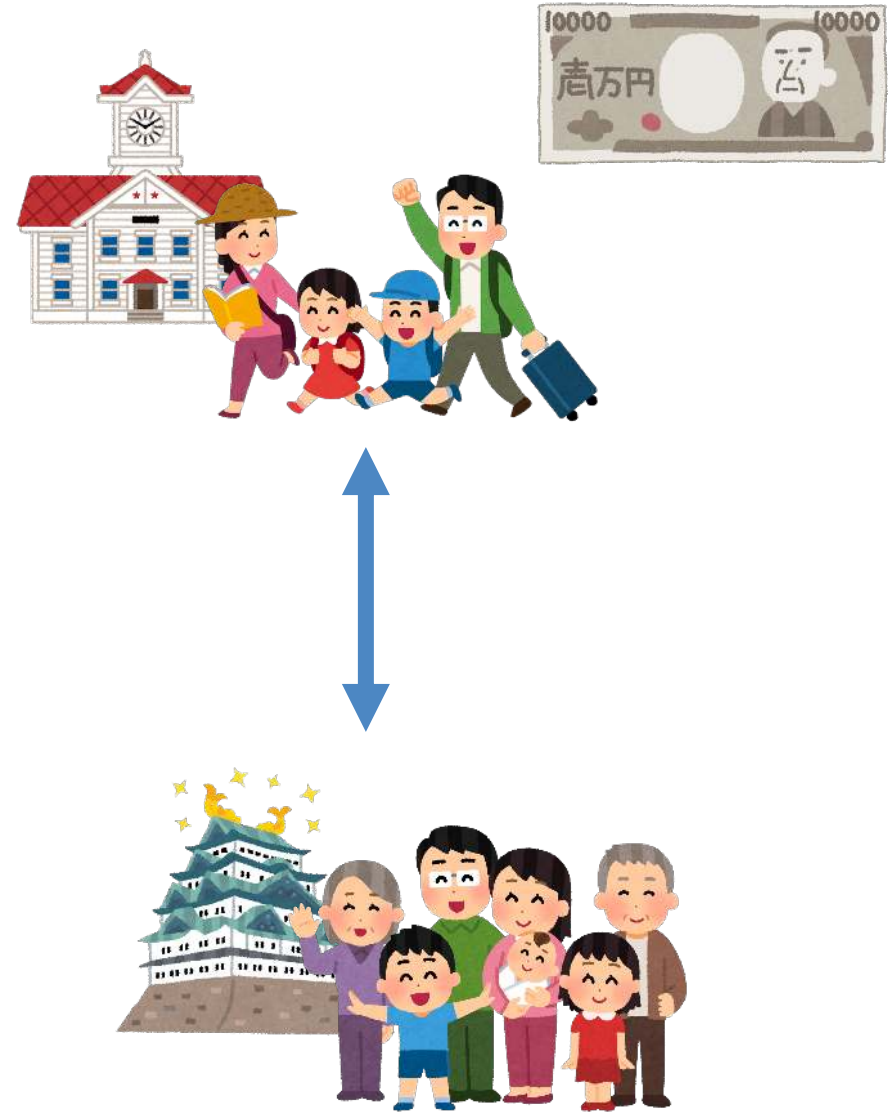
Handbook of Macroeconomics
Volume 2, 2016, Pages 923-1012

This Chapter: Natural Experiments in Macroeconomics

- Focus on three different applications of natural experiments in three literatures
 - 1 “Verification”: verify underlying model premises
⇒ Permanent Income Hypothesis
 - 2 “Quantification”: quantify specific policy parameters
⇒ Fiscal multiplier
 - 3 “Identification”: identify causal mechanisms outside conventional models
⇒ Fundamental causes of growth
- Common themes:
 - Simple econometric techniques (OLS, IV, regression discontinuity, fixed-effects estimator)
 - Difficulty is to *identify episode* with *quasi-random variation*, state *identifying assumption*, and *deal with flaws* in nature’s design

A NATURAL EXPERIMENT IN MACRO

- Fiscal policy
 - Macroeconomics Question
 - How much people react?
- 100 thousands yen transfer in 2020.
- Large difference in the date of cash transfer to bank accounts
 - May & June in Sapporo city
 - July in Nagoya city
- Using the timing difference, we can analyze the consumption response.
- Kubota, Toyama and Onishi (2011) use Mizuho bank's account data to identify the cash transfer and households reactions.



A NATURAL EXPERIMENT IN MACRO

- People react!
- In particular, those who have less liquid assets use more money
- Implications to policy design
- A guide for DSGE model

