

Econ 191: Research Paper Overview

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A quick thought experiment: the “Doer”



Ask what's the story here/how does this work?

Thought Experiment

- Skill Biased Technical Change and Income Inequality

Economic Research in the News

- Privatization, Medicare and Rising Healthcare Costs
- Macroeconomic Effects of Spending and Tax Cuts
- Unemployment Benefits and Unemployment Durations

Overview

- 1 What is a good research question?
- 2 Approaches and Methods
- 3 2 Examples

I. What is a good research question?

- Important
- New
- Implementable

I. Testable Hypotheses

- Ask what would we expect to observe if X were true
- Examples
 - Immigration hurts domestic workers' wages
 - Federal aid to states during recessions increases employment
 - Money supply affects economic activity

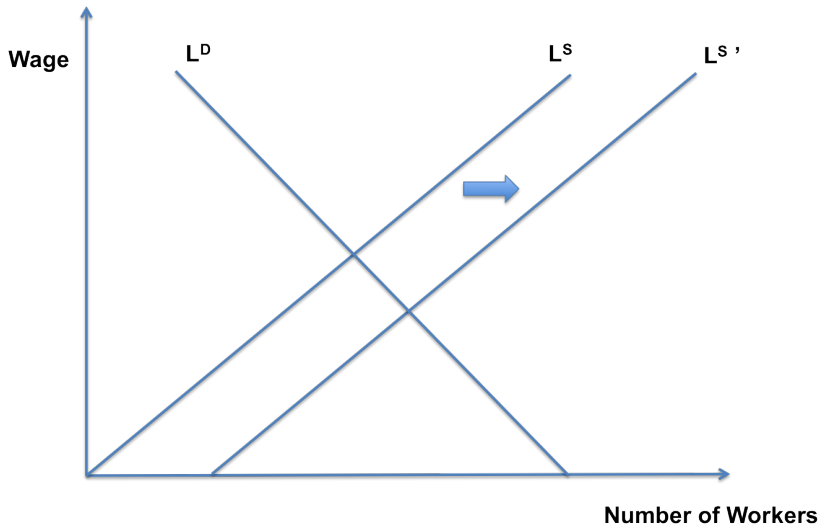
II. Economic Models

- You can get testable hypotheses from a model
- What is a model?¹
 - **Who** are the people making the choices?
 - What are the **constraints** they face?
 - How do they **interact**?
 - What **adjusts** if the choices aren't mutually consistent?
- How do I use this?
 - e.g. Consider the effects of immigration using a simple model of labor supply and demand

¹From Hal Varian: <http://people.ischool.berkeley.edu/~hal/Papers/how.pdf>

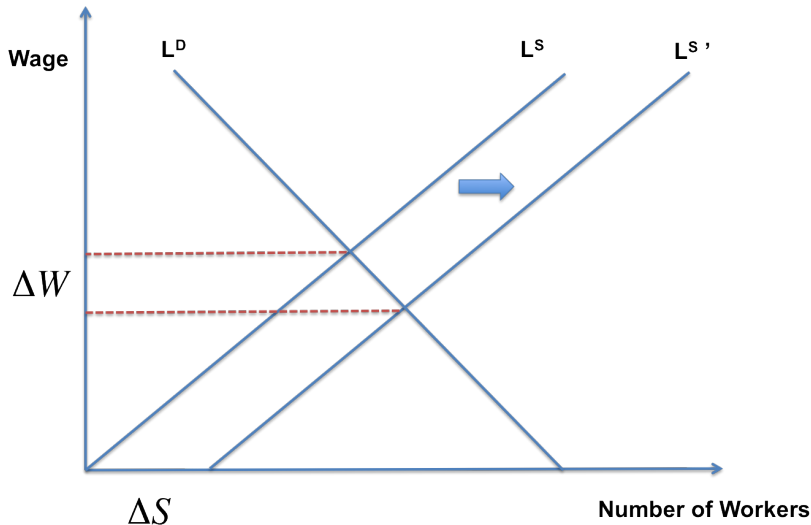
II. Using models: Immigration Example

What is the effect of immigrants on natives' wages?



II. Using models: Immigration Example Cont.

What is the effect of immigrants on natives' wages?



II. Using models: Immigration Example Cont.

Regression:

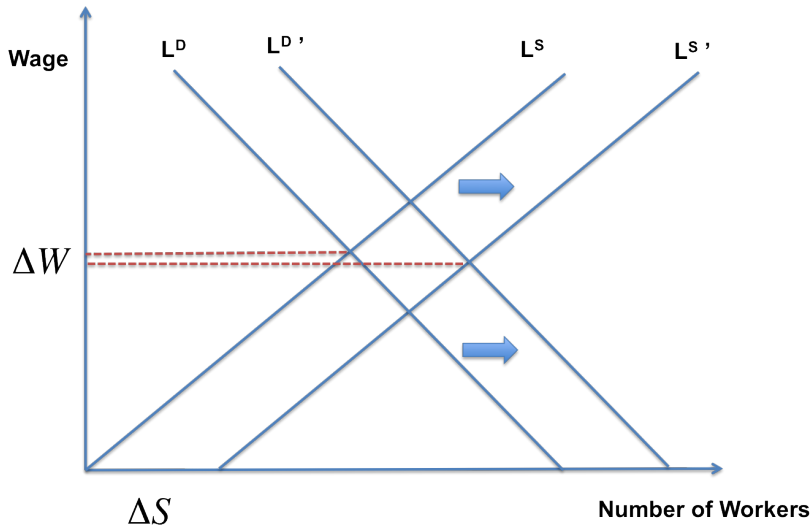
$$\Delta W = \alpha + \beta \Delta S + \epsilon \quad (1)$$

Questions to consider

- 1 How do we define the labor market? How “big” is ΔS ?
 - Skill Groups?
 - Local labor markets?
- 2 Does Demand shift right as well?
 - Local demand for goods and services \implies Higher L^D
 - Constant $\frac{K}{L}$ Ratio \implies Higher L^D
 - Trade theory \implies Higher L^D
- 3 What would have happened to wages otherwise?

II. Using models: Immigration Example Cont.

What is the effect of immigrants on natives' wages?



II. Testing & Causal Inference

Three Empirical Strategies

- Difference in Difference (Immigration Miami Boat Lift)
- Instrumental Variables (see IIIA)
- Regression Discontinuity (see IIIB)

A quick side comment on inference & endogeneity

- What is the effect of Kaplan Test Prep on SAT scores?

Employment and State Fiscal Relief

- How do you go about testing these assertions and using these methods?
- Data and Implementation?

Paper² Summary

- Question: Does state fiscal relief during recessions increase employment?
- Method: Use state's pre recession medicaid spending to instrument for fiscal relief
- Finding: a state's receipt of \$100K in Medicaid outlays \implies 3.8 job-years

²Chodorow-Reich, Gabriel, Laura Feiveson, Zachary Liscow, and William Gui Woolston. "Does State Fiscal Relief During Recessions Increase Employment? Evidence from the American Recovery and Reinvestment Act" American Economic Journal: Economic Policy 2012, 4(3): 118-145.

Background

- One third of ARRA funding to state and local governments
- Largest state and local program was the federal match component of Medicaid³ (\$88B total)
- *Variation* in support per person aged 16+ (e.g. \$100 in Utah to \$500 in DC)
- Medicaid transfers are function of:
 - 1 Amount of Medicaid spending in state prior to recession
 - 2 Δ in number of beneficiaries in recession
 - 3 Δ in average spending per beneficiary
 - 4 Whether state got more than 6.2% match b/c of high unemployment
- Use only variation from #1

³Medicaid is a state-run program that provides health insurance for certain individuals and families with low incomes and resources

Regression

$$\frac{EMP_1^s - EMP_0^s}{POP^s} = \beta_0 + \beta_1 \frac{Aid^s}{POP^s} + \beta_3 Controls^s + \epsilon^s \quad (2)$$

- What is wrong with this regression?

IIIA. State Fiscal Relief AEJ:EP

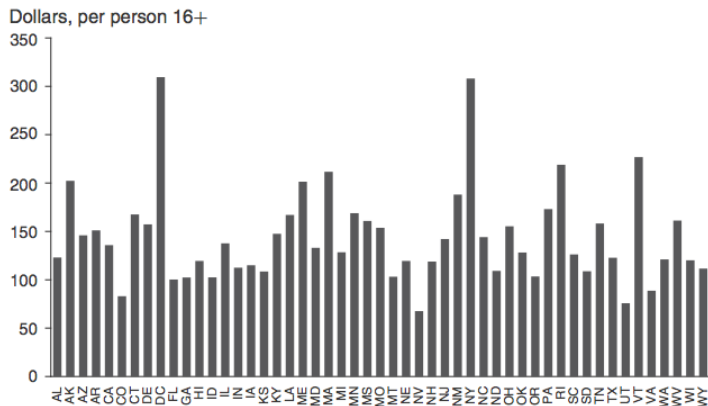


FIGURE 1. VALUE OF THE SCALED INSTRUMENT

Notes: The value of the scaled instrument is $0.062 \times \text{state's fiscal year 2007 Medicaid spending} \times 21/12$. See text for full details. Data are from the Center for Medicaid Services, data compendium, table VII.1.

IIIA. State Fiscal Relief AEJ:EP

\$100K of marginal spending increased employment by 3.8 job-years

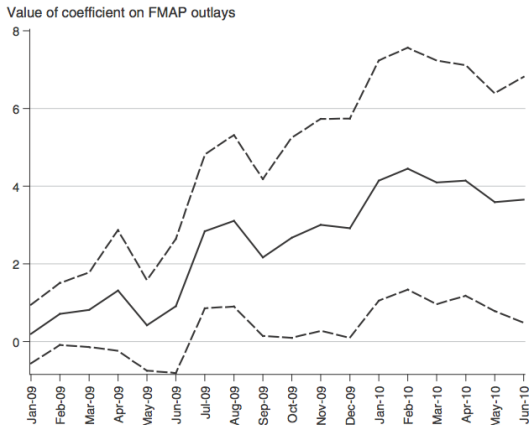


FIGURE 3. TOTAL NONFARM SECOND STAGE COEFFICIENTS

Notes: This chart displays the second stage coefficient for regressions where the outcome variable is the change in seasonally adjusted employment between December 2008 and the month indicated on the x-axis. The variable of interest is total FMAP outlays. Regressions include the full set of controls. The 95 percent confidence interval, derived from robust standard errors, is plotted in dashed lines.

Potential Issues

- Are states that spent more prior to recession different? Blue v Red states
 - 1 Use changes to address time invariant differences
 - 2 Include controls and use within census comparisons
 - 3 Run placebo tests on pre-recession data
- General Equilibrium Effects
 - NH spending may help employment in VT
 - Investment could decrease across the country due to higher government spending or expectation of future taxes

- **Motivation:** Should the Fed help ailing banks in a crisis? Does that help the economy?
- **Testable Question:** Did monetary intervention mitigate banking panics and increase economic activity during the great depression?
- **Method:** Regression Discontinuity
 - Mississippi split into two Fed districts
 - Atlanta Fed championed monetary activism and giving aid to banks in crisis.
 - St. Louis Fed did not
- **Finding:** Banks survived at higher rates in ATL, lending continued there, and recovery began faster

Tangential Comment: Macro questions and micro answers

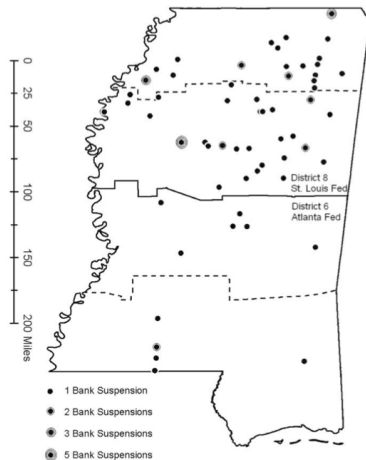


FIG. 1.—Mississippi's division into Federal Reserve districts and bank suspensions between October 1930 and March 1931. Source: See Section II. The solid line represents the Federal Reserve district border. The dotted lines enclose the counties for which at least half the area lies within 1 degree latitude of the district border.

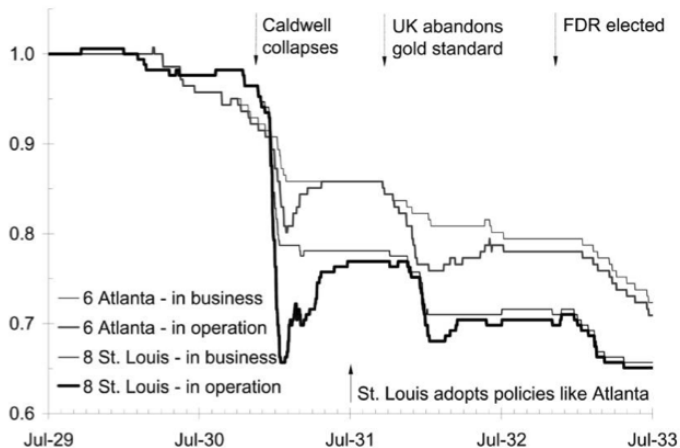


FIG. 3.—Percentage of banks in business and in operations in the 6th and 8th Federal Reserve Districts in Mississippi, July 1929 to June 1933. Source: See Section II.

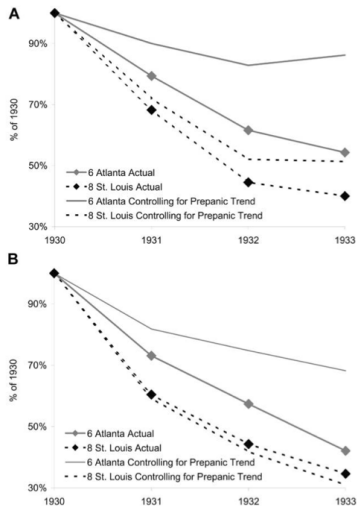


FIG. 6.—Comparing consequences of the banking panics in the 6th and 8th Districts. *A*, Total deposits as a percentage of total deposits in June 1930. *B*, Total loans and discounts as a percentage of the total in June 1930.

IIIB. Takeaways: Richardson Troost JPE 2009

- Big Question: Bagehot or Real Bills?
- Relevance - Depth and Persistence of the Great Depression
 - Friedman & Schwartz
 - Bernanke
 - Romer
- RD & selection robustness
- Clear Findings: bank failures and economic activity

Key points to address in an economics research paper

- 1 What is your question?
- 2 Why is this important and how does it fit in with the literature?
- 3 What methods do you use to answer it?
- 4 What data do you use?
- 5 What do you find?

“The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist” - John Maynard Keynes