Demand Shocks & Special Districts

Evidence from Chinese Import Shocks

Christopher B. Goodman

`cgoodman@niu.edu`

Northern Illinois University

April 18, 2025

Northern Illinois University

What is the importance of manufacturers in the creation and dissolution of special districts?

Introduction

- Special districts are a unique form of local government that provide a single service or a limited number of services

  - A defining characteristic: *lack of durability*

  - Special districts are created and dissolved frequently

- What leads to these changes?

  - Changes in demand for services

  - Changes in state laws

  - Changes in local politics

Introduction

- Manufacturers are often viewed as *boundary change entrepreneurs*

  - Individuals (or groups of individuals) who seek to alter (or preserve) the boundaries of local governments for both collective and selective gain

  - Identifying such individuals is exceedingly difficult outside of case studies

  - Proxies or conditions conducive to the emergence of such entrepreneurs are used in the literature

- If manufacturers (and their employees) become more or less important in the local area, what happens to special districts?

  - Concern: Services provided by special districts may elevate manufacturers

  - Solution: Look for shocks, instruments, or both

Boundary change entrepreneurs

- Pivotal individuals (or groups of individuals) who,

  - Get proposed boundary changes on the public agenda

  - Shepherd such proposals through the political process

- Creation (or preventing a dissolution) of a special district is the simplest form of boundary change (Carr 2004)

- Who are they?

  - Public officials – Mayors and/or city councilors

  - Businesses – Chambers of commerce, developers, **manufacturers**

  - Residents – Civics groups, HOAs, community leaders, anti-tax groups

- Incredible difficult to analyze systematically (Schneider and Teske 1992)

Motivations of boundary change entrepreneurs

- Boundary change entrepreneurs have both a collective and selective goal
    - The collective goal allows for the marshaling of support beyond the entrepreneur
    - The selective goal is how the entrepreneur benefits from the change
- Manufacturers seek economic development (collective) and individual or corporate financial gain (selective)

For this analysis,

The strength of manufacturers allows them to advocate for new districts and stave off the dissolution of older ones

Concern

- Areas with declining numbers of special districts also have declining manufacturer strength

    - This would give the appearance of a relationship with one does not necessarily exist

- *Solution*: use exposure to Chinese import competition as a shock

    - The endogeneity concern continues, special district might decline in areas with increased import exposure for unrelated reasons

    - Instrument import exposure using Chinese imports to other developed countries (Autor, Dorn, and Hanson 2013)

Import exposure

$$\Delta IPW_{uit} = \sum_{j} \frac{L_{ijt}}{L_{ujt}} \frac{\Delta M_{ucjt}}{L_{it}}$$

- Import exposure is the decadal change in Chinese imports (ΔM_{ucjt}) in industry *j* per worker (L_{it}), weighted by the local share (L_{ijt}) of national employment (L_{ujt}) in industry *j*

- Higher levels of exposure indicates an increased likelihood of a weakened manufacturing base
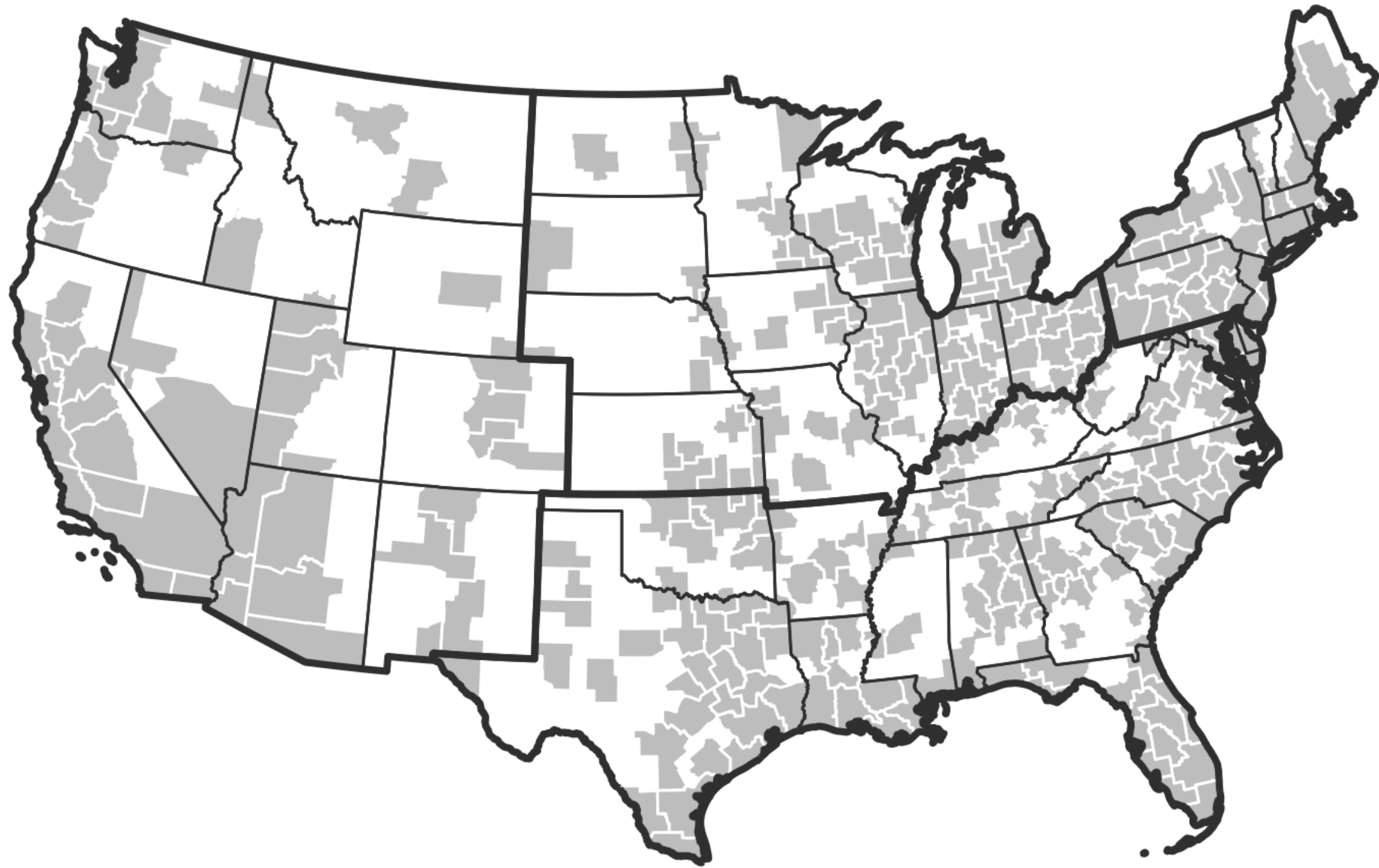
Instrument

$$\Delta IPW_{oit} = \sum_{j} \frac{L_{ijt-1}}{L_{ujt-1}} \frac{\Delta M_{ocjt}}{L_{it-1}}$$

- The instrument is the decadal change in Chinese imports to other developed countries[1] (ΔM_{ocjt}) in industry *j* per worker in the previous decade (L_{it-1}), weighted by the local share (L_{ijt-1}) of national employment (L_{ujt-1}) in industry *j* in the previous decade

Analytical details

- Period:
  - RHS: 1991-2011, centering China's 2001 entry into the WTO
  - LHS: 1992-2012, aligning with the Census of Governments
  - Estimated as stacked, two-period 1991/1992-2011/2012 and pre/post ($n = 636$, balanced pre/post)
- Unit of analysis:
  - Commuting zone (1993), urban or urban adjacent[1]
  - Assumption that manufacturers, if acting like boundary change entrepreneurs, are most influential in the labor markets they contribute to

Model Specification

$$\Delta G_{it} = \gamma_t + \beta_1 \Delta IPW_{uit} + X'\beta_2 + \epsilon_{it}$$

- where,
  - ΔG_{it} is the decadal change in the net number of special districts in commuting zone *i*
  - ΔIPW_{uit} is the change in import exposure, instrumented with ΔIPW_{oit}
  - γ_t is included in the 1991-2011 regressions, excluded in the 1991-2001 or 2001-2011 regressions
  - X is a vector of control variables

Baseline results

	I. 1991-2011			II. 1971-1991 (pre-exposure)		
	1991-2001	**2001-2011**	**1991-2011**	**1971-1981**	**1981-1991**	**1971-1991**
(Δ current period imports from China to USA)/worker	-3.479*	-3.007**	-3.114***			
	(1.497)	(0.938)	(0.828)			
(Δ future period imports from China to USA)/worker				-0.310	-0.280	-0.240
				(1.422)	(0.533)	(0.689)
N	318	318	636	315	316	631

Baseline results

	(1)	(2)	(3)	(4)
I. 1991-2011, stacked first differences				
(Δ imports from China to USA)/ worker	-3.114***	-3.012***	-2.078**	-1.936**
	(0.828)	(0.770)	(0.633)	(0.670)
Population	0.001	-0.001	-0.000	-0.002
	(0.001)	(0.002)	(0.002)	(0.002)
Total districts		0.050	0.047	0.044
		(0.051)	(0.052)	(0.049)
Income, per capita				0.898*
				(0.422)
Census region dummies	No	No	Yes	Yes
II. 2SLS first stage estimates				
(Δ imports from China to OTH)/ worker	0.074***	0.074***	0.072***	0.072***
	(0.005)	(0.005)	(0.006)	(0.006)

Newly created districts

	1991-2011, stacked first differences			
	(1)	**(2)**	**(3)**	**(4)**
(Δ imports from China to USA)/ worker	-2.611**	-2.073**	-1.468*	-1.340*
	(0.998)	(0.724)	(0.615)	(0.646)
Population	0.011***	0.001	0.001	-0.000
	(0.002)	(0.002)	(0.002)	(0.002)
Total districts		0.266***	0.268***	0.265***
		(0.060)	(0.062)	(0.059)
Income, per capita				0.804
				(0.435)
Census region dummies	No	No	Yes	Yes
N	636	636	636	636

Dissolved districts

	1991-2011, stacked first differences			
	(1)	**(2)**	**(3)**	**(4)**
(Δ imports from China to USA)/ worker	0.736	1.097*	0.876	0.874
	(0.625)	(0.514)	(0.502)	(0.510)
Population	0.009***	0.002	0.002	0.002
	(0.002)	(0.002)	(0.002)	(0.002)
Total districts		0.179***	0.180***	0.180***
		(0.023)	(0.025)	(0.025)
Income, per capita				-0.008
				(0.218)
Census region dummies	No	No	Yes	Yes
N	636	636	636	636

Conclusions

- Depending on the specification, a $1,000 increase in import exposure per worker leads to between 1.9 and 3.1 district reduction among urban and urban adjacent commuting zones

  - The results appear driven by a reduction in newly created districts

- As manufacturers

  - decline in local influence or

  - their relative demand for services declines

- The necessity for new districts also declines and fewer districts are created

Thank you

References

Autor, David H, David Dorn, and Gordon H Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103 (6): 2121–68. https://doi.org/10.1257/aer.103.6.2121.

Burns, Nancy. 1994. *The Formation of American Local Governments: Private Values in Public Institutions*. New York: Oxford University Press.

Carr, Jered B. 2004. "Whose Game Do We Play? Local Government Boundary Change and Metropolitan Governance." In, edited by Richard C. Feiock, 212239. Washington, D.C.: Georgetown University Press.

Feiock, Richard C., and Jered B. Carr. 2001. "Incentives, Entrepreneurs, and Boundary Change: A Collective Action Framework." *Urban Affairs Review* 36 (3): 382–405. https://doi.org/10.1177/10780870122184902.

Foster, Kathryn A. 1997. *The Political Economy of Special-Purpose Government*. Washington, DC: Georgetown University Press.

Goodman, Christopher B., and Suzanne M. Leland. 2019. "Do Cities and Counties Attempt to Circumvent Changes in Their Autonomy by Creating Special Districts?" *The American Review of Public Administration* 49 (2): 3–27. https://doi.org/10.1177/0275074018804665.

———. 2025. "What Lies Beneath These Creatures of the State: Understanding the Death of Specialised Governments in the u.s." *Local Government Studies*. https://doi.org/10.1080/03003930.2024.2360559.

Schneider, Mark, and Paul Teske. 1992. "Toward a Theory of the Political Entrepreneur: Evidence from Local Government." *The American Political Science Review* 86 (3): 737–47. https://doi.org/10.2307/1964135.