What Lies Beneath these Creatures of the State?

Understanding the Death of U.S. Local Governments

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What influences the dissolution of special districts?

Introduction

- Special districts are the most numerous form of local government in the United States
  - 38,542 independent districts in 2017
- Typically single function in nature
- Special districts provide a variety of public services
  - *Most popular*: Fire protection districts (5,975), water districts (3,593)

Introduction

- Districts are created and dissolved often
  - Exit rate ~6% in the average 5-year period between 1972 and 2017
  - Entry rate ~17% in the same period
- These rates are much higher than other general forms of local government
- What is driving the exit rate?
  - Is it special district creation in reverse?
  - Are exits a sign of reoganization in the local public sector?

Preview of the results

- Some evidence that special district dissolution is creation in reverse
  - Municipal TELs reduce exits
  - Grants of municipal autonomy reduce exits
  - County TELs increase exits
  - Results vary by their asset specific
- Some evidence of "creative destruction" of districts in some functional areas
  - Particularly with fire and natural resource districts

Institutional context

- Independent Special Districts
  - Most commonly used definition in the literature
  - From the U.S. Census Bureau
- Two conditions for independence
  - *Fiscal* - "the power to determine a budget, levy taxes, charge user fees, or issue debt without review for another governmental entity"
  - *Administrative* - "achieved through fiscal independence plus having 1) an independently elected governing body, 2) a governing body representing two or more state or local governments, or 3) an appointed board with functions different from the appointing government"
- Failing either condition leads Census to classify as "dependent"

Institutional context

- Special districts posses unique characteristics in U.S. local governance
  - "Territorial flexibility"
  - Free from many of the restrictions on general purpose local governments

Why do special districts dissolve?

At the individual district level,

- Several "liabilities"
  - Newness
  - Smallness
  - Initial founding conditions
  - Competitive landscape

At the systematic level,

- Demand for public services provided
- Circumvention of state restrictions
- Boundary change entrepreneurs

Underlying both are service-specific characteristics; in general, highly asset specific districts should dissolve less often

At a functional level, prior reoganization of service delivery likely influences special district dissolution

Contribution

- Only one paper at the systematic level (Bauroth 2010)
  - Dissolution over 15 years

Our contribution

1. New metrics of entry and exit based on the IO literature
2. Long panel (1972-2017)
3. New focus on county governments

Expectations

We examine special district dissolution *at the systematic level*

Overall,

- Demands for public service should reduce the exit rate
- State restrictions on general purpopse local governments should reduce the exit rate
- The presence of boundary change entrepreneurs should reduce the exit rate

By Functional Area,

- All the same as overall +
- Prior experience with reoganization should increase the exit rate

Empirical model

- 1972-2017 in 5-year increments
- County areas ($n = 3,048$)
- Data sources
  - Census of Governments
  - Census Bureau
  - Bureau of Economic Analysis
  - CDC

Definitional issue: Entry & exit

- NE_{it} = number of special districts created in county i between census years $t-1$ and t
- NX_{it-1} = number of special districts dissolved in county i between census years $t-1$ and t
- NT_{it-1} = total number of special districts in county i between census years $t-1$ and t

$$ER_{it-1} = \frac{NE_{it}}{NT_{it-1}}$$

$$XR_{it-1} = \frac{NX_{it-1}}{NT_{it-1}}$$

Definitional issue: Boundary change entrepreneurs

Boundary change entrepreneurs: Individuals who disrupt boundary changes, either by keeping changes off the policy agenda or blocking the formal dissolution

- Potentially three groups: public officials, *businesses*, and residents/citizens organizations
- We focus on 3-digit NAICS industries[a] with a vested interest in special districts

$$LQ_{jk} = \frac{E_{jk}}{E_j} / \frac{E_k}{E}$$

where, k = industry and j = county

[a] Construction of Buildings (NAICS 236), Heavy and Civil Engineering Construction (NAICS 237), Specialty Trade Contractors (NAICS 238), and Real Estate (NAICS 531)

Model specification - Q1

$$XR_{it} = \alpha + \beta \mathbf{X}_{it} + \delta \mathbf{I}_{it} + \gamma \mathbf{E}_{it} + \phi_i + \tau_t + \varepsilon_{it}$$

Special district exit rate (XR_{it}) is a function of

- Demand for public services ($\mathbf{X}$)
- Institutions ($\mathbf{I}$)
- Boundary change entrepreneurs ($\mathbf{E}$)

Model specification - Q2

$$XR_{ijt} = \alpha + \beta ER_{ijt} + \gamma \mathbf{X}_{it} + \delta \mathbf{I}_{it} + \rho \mathbf{E}_{it} + \phi_i + \tau_t + \varepsilon_{it}$$

Special district exit rate (XR_{ijt}) for functional area j is a function of

- Entry rate in the same functional area in the prior time period (ER_{ijt})
- Demand for public services ($\mathbf{X}$)
- Institutions ($\mathbf{I}$)
- Boundary change entrepreneurs ($\mathbf{E}$)

Independent variables

Demand

- Personal income, per capita
- Population (1000s)
- Population density
- Jobs, per capita
- Age Index
- Race Index
- Use of towns
- Chg. in cities

Institutions

- Municipal/County TEL
- Municipal/County debt limit
- Municipal/County functional home rule

Boundary change entrepreneurs

- Location quotient, NAICS 236
- Location quotient, NAICS 237
- Location quotient, NAICS 238
- Location quotient, NAICS 531

Descriptive statistics

Dependent variables

Variable	Mean	St. Dev.
Exit rate	0.058	0.120
Exit rate, high asset specificity	0.036	0.115
Exit rate, low asset specificity	0.012	0.081
Exit rate, fire districts	0.008	0.070
Exit rate, housing & community development districts	0.018	0.114
Exit rate, natural resource districts	0.012	0.082
Exit rate, water districts	0.018	0.107

Descriptive statistics

Autonomy & Entrepreneurs

Variable	Mean	St. Dev.
Municipal TEL	0.562	0.496
County TEL	0.577	0.494
Municipal debt limit	0.873	0.333
County debt limit	0.808	0.394
Municipal functional home rule	0.741	0.438
County functional home rule	0.443	0.497
Location quotient, NAICS 236	1.049	0.973
Location quotient, NAICS 237	1.168	1.528
Location quotient, NAICS 238	0.797	0.639
Location quotient, NAICS 531	0.591	0.975

Descriptive statistics

Demand for Services

Variable	Mean	St. Dev.
Personal income, per capita	23.632	8.196
Population (1000s)	83.928	292.188
Population growth	0.693	1.648
Population density	173.606	884.722
Jobs, per capita	0.354	0.137
Age Index	0.430	0.031
Race Index	0.124	0.146
Use of towns (Yes=1)	0.317	0.465
Chg. In cities	0.040	0.379

All counties: Autonomy

	Dependent variable: Exit rate		
	All	High Asset Specificity	Low Asset Specificity
Municipal TEL	-0.0491***	-0.0244***	-0.0068
County TEL	0.0121	0.0124	0.0075
Municipal debt limit	-0.0183	-0.0101	0.0014
County debt limit	0.0156	0.0015	-0.0049
Municipal functional home rule	0.0461**	0.0037	-0.0079
County functional home rule	0.0174	0.0142+	0.0068
County FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
n	24,294	24,294	24,294
Note:			+p<0.1; *p<0.05; **p<0.01

All counties: Entrepreneurs

	Dependent variable: Exit rate		
	All	High Asset Specificity	Low Asset Specificity
Location quotient, NAICS 236[a]	0.0022	0.0010	0.0000
Location quotient, NAICS 237[b]	-0.0004	-0.0005	-0.0006
Location quotient, NAICS 238[c]	0.0007	-0.0016	-0.0004
Location quotient, NAICS 531[d]	-0.0001	-0.0004	0.0000
County FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
n	24,294	24,294	24,294
Note:			$^{+}$p<0.1; *p<0.05; **p<0.01

[a] Construction of Buildings

[b] Heavy and Civil Engineering Construction

[c] Specialty Trade Contractors

[d] Real Estate

All counties: Demand for services

	Dependent variable: Exit rate		
	All	High Asset Specificity	Low Asset Specificity
Personal income, per capita	0.0003	0.0004	-0.0001
Population (1000s)	0.0000	0.0000^{+}	0.0000
Population growth	-0.0008	-0.0005	-0.0008^{+}
Population density	0.0000	0.0000	0.0000
Jobs, per capita	-0.0478*	-0.0162	-0.0076
Age Index	0.1221	0.3153**	0.0456
Race Index	0.0351	0.1100**	0.0843**
Chg. In cities	0.0046^{+}	0.0022	-0.0003
Use of towns (Yes=1)	0.0035	-0.0145	0.0047
County FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
n	24,294	24,294	24,294
Note:			$^{+}$p<0.1; *p<0.05; **p<0.01

Recap

- TELs imposed on municipalities tend to lower the special district exit rate - especially for highly asset specific functions
- Limited evidence that grants of functional autonomy for municiaplities increases exits
- The prevailence of boundary change entrepreneurs are largely unrelated to special district exits
- Demand for public services is not systematically related to exits

Functional areas: Autonomy

	Dependent variable: Exit rate			
	Fire Districts	Housing & Community Development Districts	Natural Resource Districts	Water Districts
Entry Rate $_{t-1}$	0.0147*	0.0248***	0.0496*	0.0356*
Municipal TEL	-0.0021	-0.0216	0.0024	-0.0085
County TEL	0.0018	0.0131	-0.0000	-0.0007
Municipal debt limit	0.0065	-0.0148*	0.0062	0.0185
County debt limit	-0.0105*	0.0152**	-0.0072*	-0.0227*
Municipal functional home rule	-0.0021	-0.0082	-0.0022	-0.0035
County functional home rule	0.0029	0.0195**	0.0050	0.0049
County FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
n	24,294	24,294	24,294	24,294
Note:				$^{+}$p<0.1; *p<0.05; **p<0.01

Functional areas: Entrepreneurs

	Dependent variable: Exit rate			
	Fire Districts	Housing & Community Development Districts	Natural Resource Districts	Water Districts
Location quotient, NAICS 236[a]	0.0001	0.0008	-0.0005	0.0008
Location quotient, NAICS 237[b]	-0.0005	0.0008	-0.0005	-0.0005
Location quotient, NAICS 238[c]	0.0012	-0.0031	0.0022	0.0002
Location quotient, NAICS 531[d]	0.0001	-0.0011	-0.0009*	-0.0000
County FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
n	24,294	24,294	24,294	24,294
Note:				$^{+}$p<0.1; *p<0.05; **p<0.01

[a] Construction of Buildings

[b] Heavy and Civil Engineering Construction

[c] Specialty Trade Contractors

[d] Real Estate

Functional areas: Demand

	Dependent variable: Exit rate			
	Fire Districts	Housing & Community Development Districts	Natural Resource Districts	Water Districts
Personal income, per capita	0.0003	0.0006*	-0.0003	0.0004
Population (1000s)	0.0000	0.0000	0.0000	0.0000*
Population Growth	-0.0004	-0.0008	-0.0007	-0.0003
Population density	-0.0000	0.0000	0.0000	0.0000
Jobs, per capita	-0.0035	-0.0082	-0.0069	-0.0014
Age Index	0.1442*	0.0208	-0.0373	0.1193
Race Index	0.0180	0.1150**	0.0455*	0.0222
Chg. In cities	0.0002	0.0026	-0.0013	0.0029
Use of towns (Yes=1)	0.0063*	-0.0314	0.0076	-0.0055
County FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
n	24,294	24,294	24,294	24,294
Note:				+p<0.1; *p<0.05; **p<0.01

Recap: Functions

- Broad evidence that prior reorganization of service delivery leads to higher within-functional area exits
- Debt limits, particularly on counties, appear to limit exits across most functions
- Boundary change entrepreneurs still not influential
- Demand related variables not particularly influential

Discussion

- At the systematic level, some further evidence that special districts act as a circumvention mechanism for general purpose local governments
  - Absent the restrictions, special districts exit the public service market
  - This result helps clarify the literature somewhat
- Within functional areas, prior experience with local government reorganization is associated with higher levels of exits
  - "Creative destruction" or obscelence
- Prevailence of boundary change entrepreneurs is unrelated to special district exits (overall or within functional areas)
- Demand related variable are not particularly influential

Policy implications

- If state policymakers care about the proliferation of special districts, they should reconsider their limitations on general-purpose local governments
  - Local services still necessary in the face of restrictions
  - Special districts appear to act as a pressure release value for municipalities in particular
- Reorganization of the local public sector can potentially reduce the number of special districts
  - Consolidation or creation of new, larger districts may enhance service delivery

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Thanks!

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Appendix

Special District Functions & Asset Specificity Assignment

High Asset Specificity

- 01 – Air Transport
- 04 – Correctional Institutions
- 05 – Other Corrections
- 24 – Fire Protection
- 32 – Health
- 40 – Hospitals
- 50 – Housing and Community Development (author-coded)
- 51 – Drainage
- 52 – Libraries
- 62 – Police Protection
- 63 – Flood Control (author-coded)
- 64 – Irrigation (author-coded)
- 77 – Public Welfare Institutions
- 79 – Other Public Welfare
- 80 – Sewerage
- 81 – Solid Waste Management
- 87 – Sea and Inland Ports (author-coded)
- 91 – Water Supply Utility
- 92 – Electric Supply Utility
- 93 – Gas Supply Utility
- 94 – Public Transit

Low Asset Specificity

- 03 – Misc. Commercial Activities (author-coded)
- 41 – Industrial Development (author-coded)
- 42 – Mortgage Credit (author-coded)
- 44 – Regular Highways
- 45 – Toll Highways
- 59 – Other Natural Resources (author-coded)
- 60 – Parking Facilities
- 61 – Parks and Recreations
- 86 – Reclamation (author-coded)
- 88 – Soil and Water Conservation (author-coded)