

Which Governments Cooperate on Public Safety? Lessons From Michigan

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Why Study Cooperation on Public Safety?

- Local units devote significant resources to public safety
- Cost savings difficult to achieve without including public safety
- Public safety is highly visible and important to the public
- Public safety collaborations are enmeshed in “politics of place.”

Research Questions

- What role do political, demographic, and fiscal factors play in explaining the *frequency* and *extent* of interlocal cooperation on public safety?
- Do these effects differ across municipal, village, and township governments?
- Do these effects differ across police and fire services?

Interlocal Services Collaborations Data

- Citizens Research Council Survey
 - Survey conducted Spring - Summer 2005
 - Catalog of services provided by each unit and contracting arrangements for each
 - All 670 local general purpose units surveyed in 24 counties
 - Responses received from 464 governments (69% response)

Interlocal Services

Collaborations Data--Continued

- Data permit examination of public safety in terms of several key component functions
 - Police Services: 12 different functions
 - Fire Services: 7 different functions
- Data Limitations
 - Data capture only one side of collaboration
 - Do not indicate the nature of the agreement

Police Services

Component Functions

- 9/11 Radio Communications
- Officer Training
- Street Patrol
/Emergency Response
- Bike Patrol
/Emergency Response
- Foot Patrol
/Emergency Response
- Horse Patrol
/Emergency Response
- Marine Patrol
/Emergency Response
- Helicopter Patrol
/Emergency Response
- Detectives/Crime Unit
- Emergency & Disaster Response Planning
- Crime Laboratory

Fire Services

Component Functions

- Inspection
- Training
- Fire Hydrant Maintenance
- Investigations
- Fire Fighting/Rescue
- Ambulance/EMS
- Hazardous Materials Handling and Response

Analysis

- Measures of Cooperation:
 - Frequency: Unit cooperates with other local units on one or more of the functions identified
 - Extent: Number of functions unit cooperates on with other local units
- Police and fire are estimated as separate models

Methods of Analysis

- Methods examine effect of each variable on likelihood of outcome, independent of effects from other variables
- Frequency Models:
 - Logistic Regression, Clustered by County
- Extent Models:
 - Negative Binomial Regression, County Clustering

Independent Variables

- Measures of Local Governments Organization, Powers:
 - Numbers of cities, townships
 - Form of government
 - Number of functions not provided by unit
- Measures of Community Composition, Change:
 - Pop, pop change, pop density of unit
 - Median pop of cities, townships in county
 - Percent of nonwhite and older pop in unit

Independent Variables-- Continued

- Measures of Unit Fiscal Capacity:
 - Total unit tax levy
 - Unit total millage
 - Unit extra voted millage
 - Level of state shared revenues received by unit

Hypotheses

- General expectation that these factors make cooperation *more* likely:
 - Large numbers of local governments in area
 - Fiscal stress of local unit
 - Lower per capita income of residents
 - Higher population densities
 - Substantial population change (growth or decline)
 - Council-Manager government
 - Home Rule charters

Hypotheses-Continued

- General expectation that other factors make cooperation *less* likely:
 - Unit provides relatively few functions
 - Unit has small population
 - Unit has heterogeneous population
 - County has large numbers of small townships
 - County has small numbers of populous cities
 - Greater levels of state shared revenues

Findings: Brief Summary

- Increased Frequency of Cooperation:
 - Many differences in factors across different service areas and types of governments.
 - All units: More cities in county make police and fire cooperation more likely
 - Cities: More likely to cooperate when pop growth is low or declining
 - Townships: More likely to cooperate when pop growth is high

Findings--Continued

- All units: Smaller pop townships in county, more services provided, and lowers levels of state shared revenues make cooperation on police and fire more likely
- Cities: Units without city manager are more likely to cooperate on police; no effect on fire
- Townships: Charter townships do not cooperate more often than general law on police or fire

Findings--Continued

- The following variables had no effect on the frequency of cooperation on police and fire
 - All units: pop, pop change, density, income
 - Total taxes and unit millage, no effect in most models
 - Cities only: Levels of shared revenues did not effect cooperation on police, but higher levels make fire cooperation less likely
 - More services had no effect on police and fire coop for cities, but increased coop for tships

Findings--Continued

- Increased Extent of Cooperation:
 - All units: More cities in county, smaller pop townships, older population, and more services provided increase extent of cooperation on police and fire
 - Cities: Number of services had no effect on extent of coop on police or fire
 - Cities: Lower shared revenues increase extent of coop for police and fire

Findings--Continued

- Townships: Pop growth increase extent of coop on police, but no effect on fire
- Townships: Pop density increase extent of coop on fire, but no effect on police
- Townships: Charter units cooperate more extensively on fire, but no effect on police
- No Effect on Extent of Cooperation:
 - All units: income, tax levy, and millage levels had no effect on extent of police or fire coop

Findings: Final Comments

- Fiscal capacity measures were largely unimportant in explaining the frequency and extent of cooperation. Shared revenues the sole exception
- The effect of pop and pop change varied across the models. Not as consistent as we expected
- The number of cities in county, services provided, and level of state shared revenues more consistent predictors of frequency and extent of cooperation on public safety

Thank You!

For a copy of the paper, contact:

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Appendix

Expanded Discussion of Findings

Frequency of Cooperation on Police Services—All Units

- Factors Increasing Likelihood of Cooperation
 - Larger numbers of cities in county
 - High population growth
- Factors Decreasing Likelihood of Cooperation
 - Higher pop townships in county
 - Relatively fewer services provided by unit
 - Higher levels of state shared revenues
- Factors with No Effect on Cooperation
 - Unit pop, pop density, income, tax and millage levels

Frequency of Cooperation on Police Services—Cities Only

- Key Differences from All Units
 - Larger numbers on Tships in county, less coop
 - Higher pop cities in county, less coop
 - Pop decline, more coop
 - Younger and less diverse pop, more coop
 - Higher pop density, more coop
 - Level of shared revenues, no effect on coop
 - Higher millage, taxes, less coop
 - Number of services, no effect on coop

Frequency of Cooperation on Police Services—TShips Only

- Key Differences from Cities
 - Tax, millage levels, no effect on coop for tships, but lower levels increase coop for cities
 - Higher shared revs; less coop for tships, but no effect for cities
 - Pop diversity; less coop for cities, more for tships
 - Pop growth; less coop for cities, more for tships
(Alternative interp: pop decline leads to more coop for cities)
 - Pop density; more coop for cities, less for tships
 - Neither city manager or charter tship effect coop
 - Tship model very similar to all units model

Frequency of Cooperation on Fire Services—All Units

- Factors Increasing Likelihood of Cooperation
 - Larger numbers of cities in county
 - Higher population diversity
- Factors Decreasing Likelihood of Cooperation
 - Greater numbers of tships in county
 - Higher pop tships in county
 - Relatively fewer services provided by unit
 - Higher levels of state shared revenues
- Factors with No Effect on Cooperation
 - Unit pop, pop change, pop density, income, tax and millage levels

Frequency of Cooperation on Fire Services—Cities Only

- Key Differences from All Units
 - Larger numbers on Tships in county, no effect on coop
 - Pop decline, more coop
 - Less diverse pop, more coop (Opposite of finding for police services)
 - Higher pop density, less coop (Opposite of finding for police services)
 - City manager, less coop (No effect for police)

Frequency of Cooperation on Fire Services—TShips Only

- Key Differences from Cities
 - Fewer functions; less coop for tships, no effect on cities
 - Greater pop; less coop for tships, no effect for cities
 - Pop diversity; no effect for tships, more coop for cities
 - Pop density; no effect for tships, less coop for cities
 - Pop growth; no effect for tships, less coop for cities
(Alternative: pop decline leads to more coop for cities)
 - Charter tship, no effect on coop
 - Tship model very similar to all units model

Extent of Cooperation on Police Services—All Units

**Indicates same as Frequency Model*

- Factors Increasing Extent of Cooperation
 - Larger numbers of cities in county*
 - High population growth*
- Factors Decreasing Extent of Cooperation
 - Relatively fewer services provided by unit*
 - Higher pop townships in county*
 - Higher levels of older population
- Factors with No Effect on Extent of Cooperation
 - Unit pop, pop density, income, tax and millage levels*
 - Level of shared revenues, and nonwhite pop

*Extent of Cooperation on
Police Services—Cities Only*
**Indicates same as Frequency Model*

- Key Differences from All Units
 - Pop decline, no effect
 - Younger pop, no effect
 - Higher shared revenues, less coop*
 - Number of services, no effect on coop

This model differs greatly from frequency model.
Factors far better predictors of the frequency of
coop

*Extent of Cooperation on
Police Services—TShips Only*
**Indicates same as Frequency Model*

- Key Differences from Cities
 - Greater number of cities in county; more coop for tships, no effect for cities
 - Greater number of townships in county; less coop for tships, no effect for cities*
 - Fewer functions; less coop for tships, no effect cities*
 - Larger pop tships; less coop for tships, no effect cities
 - Pop growth; more coop for tships, no effect for cities*
 - Charter tship, no effect on coop*
 - Tship model somewhat similar to all units model

Extent of Cooperation on Fire Services—All Units

**Indicates same as Frequency Model*

- Factors Increasing Extent of Cooperation
 - Larger numbers of cities in county*
- Factors Decreasing Extent of Cooperation
 - Greater numbers of tships in county*
 - Higher pop tships in county*
 - Higher unit pop
 - Relatively fewer services provided by unit*
 - Higher levels of state shared revenues*
 - Higher percentage of older population
- Factors with No Effect on Cooperation
 - Pop change, pop density, income, tax and millage levels

Extent of Cooperation on Fire Services—Cities Only

**Indicates same as Frequency Model*

- Key Differences from All Units
 - Pop decline, more coop*
 - Higher pop density, less coop*
 - Younger pop, no effect
 - More diversity, more coop*
 - Higher per capita income, less coop
 - Number of services, no effect on coop*
 - Number of cities in county, no effect*
 - Number of tships in county, no effect*
 - Higher millage, less coop
 - *City manager, less coop*

This model differs somewhat from frequency model.
Factors better predictors of extent of coop

Extent of Cooperation on Fire Services—TShips Only

**Indicates same as Frequency Model*

- Key Differences from Cities
 - Fewer functions; less coop for tships, no effect cities*
 - Pop decline; no effect for tships, increase coop for cities*
 - Pop density; increase coop for tships, less coop for cities
 - Charter tship, increase coop*
 - Tship model very similar to all units model