

Inequality in Policing Programs of Municipalities

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Research Problem

- Wide disparities in policing programs of municipalities
 - Social heterogeneity in municipalities due to income, race, ethnicity
 - Different institutional capacities of municipalities to resolve conflict
 - *What explains disparities in policing programs of municipalities?*
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Conceptualization of Policing Inequality

- Disparities in service inequality can be conceptualized in terms of quantity or quality of services
 - This paper focuses on disparities on the level (quantity) of resources—fiscal and personnel—allocated to policing
 - Inequality thus corresponds to the different level of policing resources deployed by municipalities in a metropolitan area
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(a) Factors of Influence: Social Heterogeneity

- Income Inequality.-
 - Tiebout model: income-sorting in municipalities will create different preferences for policies among residents
 - Median-voter model: greater inequality will increase resource allocation to (policing) services
 - Ethno-racial Heterogeneity.-
 - Minority-threat theories: greater presence of minorities will increase threat perceptions among white-majority voters
 - White-majority voters may support preventive/punitive policies of social control
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(b) Factors of Influence: Institutional Capacity of Government

- Institutional longevity.-
 - New municipalities often incorporated for control of policing powers
 - Older municipalities have a greater capacity to provide services (economies of scale)
 - Municipal fragmentation.-
 - Fragmentation of municipalities reduces capacity to provide services (diseconomies of scale)
 - Tiebout market of municipalities may allow for different levels of services
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(b) Factors of Influence: Institutional Capacity of Government

- Functional scope.-
 - Greater functional scope of municipalities allow for greater policing resources (economies of scope)
 - Political leadership.-
 - Role of institutions in policies of governments, according to the political market framework
 - Mayor-council governments may be more responsive to the preferences of majority voters (political markets and institutions)
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Empirical Framework

- Unit of analysis: municipalities in metropolitan areas (US Census Bureau)
 - Dependent variable: log of per-capita police (a) expenditures, (b) staffing (2012 CoG)
 - Heterogeneity variables: income inequality, racial/ethnic heterogeneity (2011 ACS)
 - Institutional variables: years of incorporation, number of municipalities, functional scope index, mayor-council governments, IGR (CoG, Boundary and Annexation Surveys, ICMA Form of Government Surveys)
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Quantile Analysis

- Analysis of partial effects on the dependent variable's distribution
- Quantiles: 25th (low-resources), 50th (median-resources), 75th (high-resources)

$$Q(F_i = 0.50) = (\textit{intercept})_s + \sum_g \beta_g (\textit{independent})_i + \sum_c \beta_c (\textit{control})_i + \varepsilon_i$$

- Partial effects estimated via *quantile regression*, with standard errors clustered by metro-area
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Dependent variable:	Police expenditures			Police staffing		
	25th	50th	75th	25th	50th	75th
Quantile:						
Level of expenditure/staffing:	Low	Median	High	Low	Median	High
Model:	(3)	(4)	(5)	(6)	(7)	(8)
Income inequality	0.926* (0.483)	2.043*** (0.482)	2.813*** (0.345)	1.596*** (0.315)	1.856*** (0.194)	2.143*** (0.186)
White-nonwhite heterogeneity	0.514*** (0.171)	0.440*** (0.149)	0.591*** (0.104)	0.363*** (0.113)	0.447*** (0.068)	0.523*** (0.076)
Hispanic-nonhis. heterogeneity	0.586*** (0.211)	0.646*** (0.179)	0.631*** (0.131)	0.289** (0.141)	0.290*** (0.075)	0.261*** (0.080)
Years of incorporation	0.372*** (0.064)	0.187*** (0.038)	0.056* (0.029)	0.103*** (0.029)	0.063*** (0.020)	-0.010 (0.024)
Municipalities in metro area	0.101*** (0.026)	0.042** (0.019)	0.042** (0.018)	0.006 (0.019)	0.025** (0.010)	0.028** (0.011)
Functional scope	1.969*** (0.310)	1.463*** (0.241)	1.068*** (0.183)	0.281** (0.122)	0.264*** (0.083)	0.251*** (0.096)
Mayor-council form	-0.017 (0.049)	0.123*** (0.028)	0.066** (0.028)	0.029 (0.029)	0.058*** (0.017)	0.050*** (0.019)
Controls: <i>F</i> -test	198.5***	122.6***	32.4***	88.9***	17.0***	32.9***
State intercepts: <i>F</i> -test	22.1***	27.9***	14.6***	20.5***	34.9***	24.3***

Dependent Variable:	Police expenditures	Police staffing	Dependent Variable:	Police expenditures	Police staffing
Quantile:	50th		Quantile:	50th	
Level of expenditure/staffing:	Median		Level of expenditure/staffing:	Median	
Model:	(4)	(7)	Model:	(4)	(7)
Washington, DC	—reference unit—		Virginia	-1.234	-1.337
Alaska	-0.465	-1.388	California	-1.238	-1.924
Louisiana	-0.717	-1.164	New Mexico	-1.245	-1.544
Vermont	-0.761	-1.335	Oklahoma	-1.249	-1.543
Colorado	-0.852	-1.227	Pennsylvania	-1.316	-1.691
Missouri	-0.896	-1.283	Tennessee	-1.326	-1.330
Delaware	-0.934	-1.630	Oregon	-1.334	-1.792
Arizona	-0.935	-1.485	Washington	-1.392	-1.714
West Virginia	-0.959	-1.459	Rhode Island	-1.394	-1.380
Alabama	-0.996	-1.272	Wyoming	-1.445	-1.002
Georgia	-1.012	-1.207	Kentucky	-1.448	-1.534
Nevada	-1.041	-1.601	Minnesota	-1.481	-1.823
Montana	-1.050	-1.575	Maryland	-1.494	-1.389
South Carolina	-1.053	-1.236	New Jersey	-1.494	-1.487
Ohio	-1.064	-1.493	Utah	-1.516	-1.807
South Dakota	-1.102	-1.634	Iowa	-1.548	-1.808
Wisconsin	-1.102	-1.550	Nebraska	-1.575	-1.639
Kansas	-1.104	-1.451	New Hampshire	-1.694	-1.237
Michigan	-1.122	-1.572	North Dakota	-1.706	-5.752
Mississippi	-1.146	-1.231	Idaho	-1.774	-1.627
Florida	-1.167	-1.407	Connecticut	-1.775	-1.381
North Carolina	-1.168	-1.263	Maine	-1.784	-1.431
Arkansas	-1.209	-1.453	New York	-1.828	-1.534
Texas	-1.225	-1.428	Indiana	-2.213	-1.513
Illinois	-1.234	-1.606	Massachusetts	-2.227	-1.515

Conclusions

- Social heterogeneity generally influential:
 - However, income inequality appears to have a differential effect on high-resource municipalities
 - Institutional capacity differentially influential:
 - Years of incorporation (longevity) more influential among low-resource-municipalities
 - Mayor-council government (leadership) more influential among high-resource-municipalities
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Implications

- Mitigating social heterogeneity can help in resolving conflicting preferences over social control programs
 - Institutional capacity (e.g., via state policies) can help municipalities resolve those conflicting preferences in a decentralized manner
 - Potential research extensions: disparities in fiscal capacity, intergovernmental assistance, state policies
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Thank you!