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USING CITIZEN SURVEYS TO EVALUATE THE ORGANIZATION OF POLICING

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Using Citizen Surveys to Evaluate the Organization of Policing

Citizen surveys can provide three types of information useful in evaluating police policy alternatives. Survey information about citizens' experiences can provide data not only on the victimizations occurring to citizens, but also on the kinds of encounters citizens have with police when they report crimes, request assistance, or are stopped by police. Surveys are also a means of collecting systematic information on citizens' perceptions of what their police do and what they should do from those who may have had no direct contact with police. The third kind of information citizen surveys can supply is citizen's evaluations of how well their police are performing and how secure their communities are. Citizens' reports of their experiences are an important source of data on what is going on. Perceptions and evaluations of police as seen by the public at large are important sources of data for determining the responsiveness of police activities to citizens.

For survey data to be useful in evaluating policing, the data from citizens must be merged with data on the police departments serving the citizens. When specific aspects of police operations are to be evaluated, as in the Police Foundation Study of Preventative Patrol in Kansas City, each citizen respondent has to be identified in terms of the police policy variables under study. The same is true for studies of police organization in which a number of different departments are compared. Without data on the types of departments serving respondents to a survey, there is no way to use those survey data to determine which differences in police organization or operations are related to more favorable citizen experiences, perceptions, and evaluations.

Many of the citizen surveys relating to victimization and police performance have not included data on the police departments serving the respondents. This

has limited their usefulness in evaluations of policing. But it is possible to augment citizen survey data with data describing police agency organization and jurisdictional characteristics. In this way data which were originally collected to determine demographic patterns of victimization or of perceptions of local police can be used to examine police policy alternatives.

Re-examination of NORC Nationwide Study

By adding jurisdictional data and re-analyzing data collected by NORC for the President's Commission on Law Enforcement and Administration of Justice, Ostrom and Parks (1973) were able to examine four hypotheses commonly advanced by advocates of organizational reform for the police. These were:

- H1: An increase in the size of the jurisdiction providing police services to citizens, will be positively associated with higher service levels.
- H2: For constant service levels, an increase in the size of the jurisdiction providing police services, will be positively associated with lower per capita expenditures on police services.
- H3: A decrease in the number of police jurisdictions serving the citizens within a metropolitan area, will be positively associated with higher service levels.
- H4: For constant service levels, a decrease in the number of police jurisdictions providing police services within a metropolitan area, will be positively associated with lower per capita expenditures for police services.

Measuring the level of police services with multiple indicators of citizens' evaluations of their police, their feelings of safety in their own neighborhoods, and their confidence in the local police, we found consistent evidence that ran counter to hypotheses one and two. Size was negatively associated with service levels, and size was negatively associated with lower per capita expenditures when level of service was controlled.

The evidence was also found to run counter to hypotheses three and four when the number of jurisdictions in a metropolitan area was

measured in relative terms (number of jurisdictions per 100,000 inhabitants), but provided some support, particularly for hypothesis four, when the absolute number of jurisdictions in a metropolitan area was used.

Most Similar Systems Studies

The evaluation of alternative ways to organize and conduct policing should also take into account the different service conditions confronting police in different types of areas. In 1970, we began a series of comparative studies of police organization in which police patrol areas were matched by similar conditions (housing density, population age, income, and racial distributions, extent of home ownership and so on). Citizen surveys provided the data for our evaluations of the effectiveness and responsiveness of alternative ways of organizing police in the similar neighborhoods. Police expenditure estimates for the various neighborhoods, when combined with measures of police performance obtained through citizen surveys, permitted us to estimate the relative efficiency of the differently organized police departments.

All of these studies resulted in similar findings: large police departments are no more effective, responsive, or efficient than small departments. In fact, wherever differences in citizens' experiences, perceptions, or evaluations were reported across similar neighborhoods, the small departments compared favorably to the large.

The survey data on citizens' experiences permitted us to compare how people in similar neighborhoods fared when served by differently organized police departments. Under which kinds of police organization are people less likely to be victimized, more likely to be assisted by local police, more likely to have a speedy response to their calls for assistance, and so on? Survey data also permitted us to compare how people in similar neighborhoods themselves evaluated the service of their local police, again across a variety of different

departments. What kinds of police organization are rated more highly by citizens in terms of honesty, fairness, protection, availability, and so forth? One advantage of citizen survey data in evaluation of policing is that its collection is under the direction of the study team. The collection of the data need not react upon the activities of police in the various departments being compared, and standard definitions and recording practices can be employed across the various departments. Citizen survey data can therefore be more reliable and valid than indicators derived from agency records.* More importantly, however, we selected these indicators because we believe that the outcomes for citizens ought to be the most important measures of public agency performance.

Indianapolis Study

Our first study was conducted in the Indianapolis metropolitan area.** Three small, independent cities were located directly adjacent to the jurisdiction of the Indianapolis Police District. The independent communities of Speedway, Beech Grove and Lawrence have populations of 12,000 to 16,000 and police forces of 18 to 25 sworn officers. Considerable speculation existed that these departments would be consolidated into the Indianapolis department because of their presumed ineffectiveness. Immediately adjacent to each independent community was a neighborhood served by the Indianapolis Police Department with socio-economic characteristics, housing patterns and living conditions closely matched to those of the towns. The six areas -- three

*Among criticisms of the use of reported crime rates and other data from agency records for evaluating policing, lack of comparability across departments and police agency modifications of recording practices in reaction to evaluative use of records have been most prominent. See, for example, Biderman (1966), Task Force on Assessment (1967), E. Ostrom (1971), Maltz (1972), Seidman and Couzens (1972), and Parks (1976). For a discussion of some advantages in using agency records of reported crime see Skogan (1974).

**The study is reported in Ostrom, et al. (1973), Ostrom, Parks, and Whitaker (1973), and Ostrom and Whitaker (1973).

independent communities and three Indianapolis neighborhoods -- were all white, middle-class residential districts with single-family residences. The Indianapolis neighborhoods were served by a highly professionalized city police force composed of over 1,100 sworn officers, serving a total population of nearly 500,000.

The performance of the larger department did not exceed that of any of the three smaller departments on any indicator used. In regard to experiences, citizens served by the Indianapolis Police Department were victimized more often, assisted less frequently, received slower responses, and lower levels of follow-up. In regard to evaluations, citizens served by the Indianapolis Police Department were less willing to evaluate their police as doing an outstanding job, to rate police-community relations as good, and less likely to indicate that crime was about the same or decreasing, or to rate their police as responding very rapidly.

The findings in regard to efficiency were ambiguous. While the per capita expenditures of the City of Indianapolis averaged \$21.33 for the city as a whole, we did not believe that this figure accurately reflected expenditures in the neighborhoods. Using a complex expenditure allocation formula, we found that resources worth approximately \$10.72 per capita were devoted to the provision of police services within the three Indianapolis neighborhoods included in this study. Police expenditures in the independent communities averaged \$12.76 per capita. Thus, the per capita cost of resources devoted to police services in the Indianapolis neighborhoods was less than the per capita cost in the independent communities. This finding did not provide adequate evidence for any conclusions about the relative

efficiency of the two types of departments. The residents of the smaller communities -- while effectively allocating more to police services -- were also receiving higher levels of service.

Analysis of the expenditure patterns of the two types of police departments did indicate some important differences in resource allocation. The smaller police departments allocated proportionately more of their police budget to patrol services, while the Indianapolis department allocated proportionately more to detective and supervisory services. It appeared that the smaller communities were devoting proportionately more effort to crime prevention and immediate response activities, and that the larger department was devoting more resources to investigation of crime after it had occurred.

Replications Using the Indianapolis Design

The findings from the Indianapolis study were contrary to conventional wisdom regarding desirable changes in police organization. Therefore, we felt that it was important to replicate the study in other locales, and in matched neighborhoods different from those studied in Indianapolis. Colleagues in two other metropolitan areas, Grand Rapids/Michigan and Nashville/Tennessee, used very similar questionnaires and research designs.* Their findings with respect to police effectiveness were the same as those in Indianapolis. Citizens served by the smaller police forces indicated more favorable perceptions and evaluations of their police, and reported lower victimizations, higher levels of follow-up

*For the Grand Rapids study, see Ishak (1972); for Nashville, see Rogers and Lipsey (1974).

by the police, and more assistance from their departments. Rates of being stopped by local police were virtually identical in each matched set of neighborhoods, thus negating an alternative hypothesis that smaller departments build support by being more lenient with local residents. In Grand Rapids, the evidence indicated higher efficiency by the smaller departments, in that they were spending less per capita while achieving higher effectiveness rates (efficiency questions were not addressed in the Nashville study).

We conducted another replication ourselves, comparing the service delivery to black residents in two poor, black villages in the Chicago metropolitan area, to that provided by the Chicago Police Department to residents of three similar neighborhoods within that city.* We found that Chicago police to be spending approximately 14 times as much per capita, while the citizens they served were no more likely to report favorable experiences and somewhat less likely to give favorable evaluations.

The citizen survey data from these four studies, summarized in Table 1, was consistently contrary to that which would have been expected if the recommendations for increasing police agency size through consolidation and elimination of small departments were correct.

In each study we found that the smaller departments emphasized patrol activities in their manpower allocations. We hypothesized that this resulted in many more opportunities for officer-citizen interaction at the street level, increasing the officer's knowledge of the problems and preferences of the citizens served, and thus his ability to deliver services more effectively. We also argued that the smaller

*See Ostrom and Whitaker (1974).

agencies were less likely to suffer from problems of internal information loss due to communications breakdowns between layers of hierarchy, and that citizens in smaller communities were more likely to have access to police decision-makers through their local political process

Table 1
Comparison of Citizen Experiences and Citizen Evaluations in Indianapolis, Grand Rapids, Nashville and Chicago

Experiences	Indianapolis (White Residents)		Grand Rapids (White Residents)		Nashville (White Residents)		Chicago (Black Residents)	
	Indep. Community	City Neighborhood	Indep. Community	City Neighborhood	Indep. Community	City Neighborhood	Indep. Community	City Neighborhood
% Not Victimized	80% (333)	70% (349)	90% (516)	86% (563)	83% (106)	64% (98)	75% (193)	74% (276)
% Who Reported Victimizations	86% (73)	82% (103)	94% (74)	85% (57)	67% (18)	46% (35)	-	-
% Who Received High Follow-Up	47% (43)	36% (37)	80% (74)	66% (57)	-	-	59% (32)	46% (48)
% Who Called for Assistance	26% (336)	17% (311)	22% (568)	26% (554)	26% (106)	12% (98)	19% (193)	24% (269)
% Who Received Assistance 5 Min.	79% (71)	60% (45)	56% (142)	45% (122)	-	-	60% (30)	48% (44)
% Stopped	24% (325)	25% (325)	27% (557)	26% (559)	17% (105)	15% (98)	-	-
Evaluations								
% Rating Job Done--Outstanding	31% (369)	12% (330)	23% (557)	15% (559)	42% (106)	6% (98)	-	-
% Rating PCR--Good	94% (321)	82% (273)	97% (557)	93% (559)	67% (106)	43% (98)	46% (181)	44% (254)
% Police Do Not Take Bribes	86% (334)	85% (315)	95% (557)	92% (559)	-	-	37% (110)	21% (157)
% Crime About Same or Decreasing	77% (315)	60% (314)	79% (557)	57% (559)	57% (106)	62% (98)	-	-
% Rating Police Response V. Rapid	66% (323)	43% (276)	38% (557)	23% (559)	60% (106)	62% (98)	26% (144)	25% (197)
% Agree Police Treat All Equally	-	-	88% (557)	65% (559)	82% (106)	64% (98)	46% (105)	18% (181)

than were those living in a very large community. All of these were proposed as explanations of our findings.

St. Louis Study

In 1972, we conducted a more complex study in the St. Louis metropolitan area. In that study 44 neighborhoods served by small, medium, and large police departments were included. Among the 44 neighborhoods for which we obtained performances measures, nine were served by departments which had ten or fewer full-time officers. On

the other extreme, 11 neighborhoods were served by either the St. Louis County Department with 436 officers, or the City of St. Louis Department, with 2,200 officers. Twenty-four of the sample neighborhoods were served by municipal departments with 11 to 76 full-time officers. Neighborhoods were stratified according to socio-economic variables and matched neighborhoods were selected from several strata.*

Our findings in regard to citizens' experiences and evaluations are summarized in Table 2. The percentage of neighborhoods in each size class which ranked either above or below the mean on each experience and evaluation variable is shown. The choice of above or below the mean was made so that along the entire table, a higher percentage would indicate that departments of this size had higher performance on each relevant variable. Thus, for victimization, departments having a less than mean victimization rate would have a higher performance rating. On the other hand, for the evaluation variable -- citizens rating the job of police as outstanding -- the proportion of departments having above the mean rankings was used as the indicator of better performance.

*See Ostrom (1976) for a report of the aspects of this study discussed here.

Table 2
Percentage of Neighborhoods Served by Small, Medium or Large Police Departments with Higher than Mean Performance Levels

<i>Experiences</i>	<i>Neighborhoods Served by 10 Full-Time Officers or Less</i>	<i>Neighborhoods Served by 11 to 76 Full-Time Officers</i>	<i>Neighborhoods Served by 436 or 2200 Full-Time Officers</i>
X ₆ % Victimized (Below Mean)	78	42	45
X ₇ % Assisted (Above Mean)	33	67	36
X ₈ % Stopped (Above Mean)	33	54	36
X ₉ % Know Someone Mistreated (Below Mean)	44	46	63
X ₁₀ % Know 1 or more Police (Above Mean)	56	50	27
<i>Evaluations</i>			
X ₁₁ % Indicate Crime Increasing (Below Mean)	78	58	27
X ₁₂ % Indicate Police Respond Very Rapidly (Above Mean)	33	79	9
X ₁₃ % Rate Police Job Outstanding (Above Mean)	44	67	9
X ₁₄ % Rate PCR Outstanding (Above Mean)	67	50	9
X ₁₅ % Strongly Agree Police Honest (Above Mean)	56	58	9
X ₁₆ % Strongly Agree Police Treat All Equally (Above Mean)	78	46	45
	N = 9	N = 24	N = 11

For the experience variables, the very small departments compare favorably with the other size classes. Seven of the nine small departments (78 percent) had lower than mean victimization rates, while 42 to 45 percent of the neighborhoods served by medium and large departments had below mean victimization rates. For assistance, departments in the middle-size range were more effective than either the very small or the large departments. The middle-sized departments also stopped a larger proportion of their citizens, than did either the very small or the large departments. A curvilinear relationship exists for both assistance and stop rates when arrayed by department size.

As for citizens knowing someone mistreated, a lower proportion of the citizens served by the large departments knew someone who had been

mistreated than did citizens served by the small- or medium-sized departments. In regard to citizens knowing police officers, a larger proportion of citizens served by the very small- and medium-sized departments knew at least one police officer. Thus, for experience variables, evidence of a curvilinear relationship exists for two of the five variables. For one variable, the larger departments were rated higher than either the very small- or medium-sized departments. For the remaining two, the very small is higher than all others in one case and about equal to the medium-sized departments in the other.

For the evaluation variables, evidence exists for a curvilinear relationship concerning whether citizens reported that their police respond very rapidly and whether citizens rated the job of their local police as outstanding. For the other four evaluation variables, the very smallest departments were the most effective, or about equal to the medium-sized departments. In regard to the full set of evaluation variables, none of the neighborhoods served by the large departments rated their police higher than citizens living in the small or medium-sized jurisdictions.

The per capita costs of the small departments were quite low. They ranged from \$7.20 to \$20.56 per capita. The per capita costs of providing police services to the neighborhoods served in the medium-sized departments ranged from \$12.78 to \$36.87; and in the large departments, from \$19.29 to \$52.77. Given the relative performance levels, it would be difficult to argue that the small departments are less efficient. While efficiency scores cannot be computed because of the nature of our performance measures, departments spending less per capita and

performing as well or better than departments spending more per capita, can definitely be evaluated as more efficient.

The Consistent Findings

A conclusion from this series of studies is that organizational arrangements are related to police performance. But the relationships we found are often different from those presumed to exist by many of the national commissions who have consistently recommended the elimination of most smaller police departments across the country. Instead of the larger departments consistently performing better in neighborhood policing, as measured by citizen experiences and evaluations, larger departments were consistently found to perform the same or even less well than smaller departments serving similar neighborhoods. Relying upon a variety of indicators, we conclude that small- to medium-sized departments are often more effective in providing neighborhood police services than larger departments. Our evidence concerning efficiency is not as complete, but the weight of the evidence leads us to conclude that small- to medium-sized departments are generally at least as efficient in delivering their services.

We have hypothesized that it is differences in police operations in the differently organized departments which accounts for the difference in citizen experiences and evaluations of police. To test some of those hypotheses about the police activities linking size of organization to citizens' experiences and perceptions and evaluations, we have planned a study which will examine what patrol officers do and how they are supervised in more than twenty departments of various sizes. Citizen surveys will again provide the information on the public consequences of policing. This will permit us to evaluate alternative policies for police

organization and operations. In the proposed study, we will also examine closely citizen perceptions of police activity. By observing what it is that police in different types of agencies do, and by comparing that to what citizens perceive them to be doing, we will be able to specify more precisely why it is that citizens in neighborhoods served by large police agencies are less likely than those served by small police departments to rate their police highly.

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