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Resolution Test Chart (NBS 1963-A) showing patterns of five horizontal and five vertical lines for various resolution values:

- 1.0
- 1.1
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- 2.5
- 2.8
- 3.2
- 3.6
- 4.0

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INTERJURISDICTIONAL COOPERATION AMONG POLICE DEPARTMENTS
IN THE ST. LOUIS METROPOLITAN AREA*

by

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Institute of Public Administration
The Pennsylvania State University

*I would like to acknowledge the support of the Center for Studies of Metropolitan Problems of the National Institute of Mental Health in the form of Grant 5 R01 MH 19911-02. Also I would like to thank Nancy Neubert, Elinor Ostrom, Vincent Ostrom and Roger B. Parks for their comments on drafts of this article.

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Introduction

This is a study of cooperative arrangements that exist among 28 independent police departments in the St. Louis metropolitan area. The conditions that are conducive to the development and maintenance of patterns of cooperation in organized human activity are among the factors that are the subject of basic disagreements among political theorists. Some argue that cooperation will not occur among autonomous agencies or units of governments unless it is developed and overseen by a higher authority in an integrated chain of command.

Others contend that cooperative arrangements will emerge and pose no difficulties as long as concurrent judicial, political and administrative arrangements are available to process and resolve conflict. In addition, these arrangements can facilitate the supplying of complementary services that relate to the problems of overarching communities of interest. (Ostrom, Tiebout and Warren, 1961) The one approach tends to

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emphasize the limitations of federalism whereas the other argues that federalism will work under appropriate conditions. From a researcher's standpoint, the diverging beliefs of proponents of each of the two approaches suggest the need to systematically examine assertions made with a view to ascertaining the degree to which these beliefs are grounded in fact.

This discussion will be an empirical examination of several hypotheses that exist in the extant literature pertaining to the reform of urban police service delivery systems. The hypotheses relate to the quantity and variety of interjurisdictional cooperative arrangements that exist among police departments servicing urban communities. Given the emphasis placed upon the need for changing existing institutional arrangements by proponents of reform, it is important to examine the assertions made by such analysts. By doing so, it is possible to assess the extent to which their view of the existing arrangements among producers of police services is borne out in fact.

The research site from which the data were collected is the St. Louis metropolitan area. 64 police departments produce most services for the citizens in this area of which 28 are included in this study. The research was conducted over the two year period from March 1972 to May 1974 in conjunction with a large-scale study of neighborhood police services in the St. Louis area.¹

The Hypotheses

In 1967, the President's Commission on Law Enforcement and the Administration of Justice (1967:301) characterized the state of cooper-

ation among America's police forces in these terms:

America is essentially a nation of small police forces, each operating independently within the limits of its jurisdiction. The boundaries which define and limit police operations do not hinder the movement of criminals, of course. They can and do take advantage of ancient political and geographic boundaries, which give them sanctuary from effective police activity. Nevertheless, coordination of activity among police agencies, even when the areas they work in are contiguous and overlapping, tends to be sporadic and informal, to the extent that it exists at all. This serious obstacle to law enforcement is most apparent in the rapidly developing urban areas of the country, where the vast majority of the Nation's population is located and where most crimes occur.

This perspective on police services is reinforced and broadened to include other local governmental functions at another point in the same Commission's report (Task Force Report: The Police: 72-73):

Obstacles to the coordination or consolidation of the police services of different jurisdictions are similar to the obstacles to restructuring and relocating other functions of local government. The fragmented, decentralized system of police administration parallels the organization of local government generally. However, the obstacles to coordination and consolidation of police services tend to be among the most formidable, primarily because police service is generally one of the most local governmental services, and also because even the smallest local governmental jurisdictions like to believe that they can provide at least minimal needed police services.

The presumption that interjurisdictional cooperative arrangements among police departments are ad hoc, sporadic and far too few has been articulated by at least one other Presidential Commission (Harr, 1968: 17-18), by Norrgard (1969) and by many other scholars in the urban government and police fields. This point of view has had and continues to have policy implications for those concerned with the quality of police services in America's urban places.

Previous studies of police services in the St. Louis area have tended to confirm propositions that assert in substance that relations

among police departments are inadequate to meet the needs of the metropolitan area. Fragmentation is considered the cause of this lack of cooperation. In a series of recommendations made in a report to the St. Louis County Bar Association, a St. Louis County Citizen Committee for the Reform of Criminal Justice suggested:

...establishment of an effective coordinating committee to facilitate uniform police standards and cooperative activities within the entire metropolitan area.

It should be noted further that there is no longer, in the St. Louis area, what may be referred to as "local crime". Rapid transportation, merging boundary lines and shifting populations create a climate for criminal activity which is truly metropolitan in character. As a result, "pattern" crimes which may be most successfully solved by the concentrated effort of a single department are often investigated by a number of police departments that may or may not be working cooperatively.

In their conclusion, the authors of still another prepared report on police services in St. Louis County (Public Administration Service, 1967: 53) point to "(b)asic causative factors" that they believe are responsible for the inadequacies in police field services, staff and auxiliary services in the County.² One of the four major factors is stated thus:

(E)xcessive jurisdictional, operational and internal fragmentation virtually deny opportunity for concerted and effectual action.

An important thrust of the literature can be summarized and stated as a syllogism yielding a conclusion that can be tested with data collected from research conducted in the St. Louis area:

P₁: The observation of jurisdictional multiplicity implies a lack of cooperation among police departments in urban areas.

P₂: Jurisdictional multiplicity is observed in the St. Louis area.

Conclusion: A lack of cooperation exists among police departments in the St. Louis area.

This conclusion appears to be one which is generalizable to other multiple jurisdictional settings and is central to the argument made by proponents of reform for the consolidation of units that produce police services. Because cooperation is presumed to be lacking among the diverse producers of police services in a multiple jurisdictional setting such as that which exists in the St. Louis area, and because cooperation is a necessary condition for quality police services, institutional arrangements must be re-designed to build in the necessary degree and kinds of cooperation. Consolidation is recommended as one means to this end. Increased cooperation is also recommended. The Law Enforcement Assistance Administration operates regional offices that offer financial incentives for police departments that are willing to partake in metropolitan-wide schemes to coordinate the provision of police services. In the St. Louis area, Region Five of LEAA has created a council representing some of the local law enforcement agencies with a view to institutionalizing a regional concept of law enforcement.

In addition to the general hypothesis mentioned previously, several others exist in the reform oriented literature which address the issues of the quantity and variety of interjurisdictional cooperation. The passages cited at the beginning of this section are among those which yield assertions that can be construed as bases for the recommendations made in those reports. As such, they merit attention by scholars concerned with the problem of designing institutional arrangements for the production of police services. The following hypotheses can be discerned in this literature:

H: Cooperation among police agencies in multiple jurisdictional settings tends to be informal. (Task Force Report: The Police, 1968: 68; Norrgard, 1969: 2)

This hypothesis can be refined further by making a distinction between contiguous and non-contiguous police departments in multiple jurisdictional settings. Thus, for the set of police departments that are contiguous, the following assertion is made:

H: Even if police departments are contiguous, cooperation tends to be informal. (President's Commission, 1967: 301; Norrgard, 1969: 1)

Other statements pertaining to particular types of cooperation can be stated as hypotheses:

H: Informal cooperation tends to be of a mutual aid nature. (Task Force Report: The Police, 1967: 70)

In addition to assertions that describe particular types of cooperation, there are statements describing the quantity of cooperation that exists among police departments in multiple jurisdictional settings:

H: Cooperation among police departments tends to be sporadic. (President's Commission, 1967: 301; Norrgard, 1969: 1)

This hypothesis can also be refined by drawing a distinction between contiguous and non-contiguous departments.

H: Even if police departments are contiguous, cooperation tends to be sporadic. (President's Commission, 1967: 119)

Let us now summarize this discussion by restating the above hypotheses, keeping in mind that they can be partitioned into those that pertain to the variety of cooperation that occurs, and into those that refer to the quantity of existing cooperation.

A. Hypotheses Referring to the Quantity of Interjurisdictional Cooperation

H₁: A lack of cooperation exists among police departments in multiple jurisdictional settings.

H₂: Cooperation among police departments tends to be sporadic.

H₃: Cooperation among contiguous police departments tends to be sporadic.

B. Hypotheses Referring to the Variety of Interjurisdictional Cooperative Arrangements

H₄: Cooperation among police agencies in multiple jurisdictional settings tends to be informal.

H₅: Cooperation among contiguous police agencies in multiple jurisdictional settings tends to be informal.

H₆: Informal cooperation tends to be of a mutual aid nature.

Previous Research on Inter-Local Cooperation Among Police Departments

A number of scholars have pointed out (in an unsystematic manner) that there are a significant number of cooperative arrangements among police departments in metropolitan areas.³ Among those scholars, there are some that have made an effort to substantiate verbal descriptions of inter-local cooperation among police departments with data which begin to describe the extent and variety of arrangements. (Graves, 1964; Deutsch, 1964; Dye, et al., 1963; Marando, 1968)

To date, the most detailed examination of cooperation among police departments in a metropolitan area was conducted by H. Paul Friesema (1971). Friesema examined relationships among a wide range of institutions that govern and provide services in the ten municipalities constituting the Quad-Cities metropolitan area. He begins his analysis by positing "that a plural political community exists in the Quad-Cities...". He poses his research problem as one of accounting for its maintenance (1971:11). A major portion of his discussion consists, therefore, of a detailed description of the variety of arrangements that function as integrators of that political community. In addition, he addresses assertions made by those scholars who maintain that interlocal relations are sporadic and ad hoc.

In substance, his conclusion is that the variety of relationships that are discernable in the Quad-Cities area disconfirms - or at least casts doubt upon - these assertions.⁴ (1971: 135-136).

The Study

In order to ascertain the number and variety of interjurisdictional cooperative arrangements existing in the St. Louis area, interviews were conducted with more than fifty officers (including chiefs) within 28 police departments in the St. Louis area. A structured questionnaire was administered in each case, but respondents were encouraged to elaborate on their discussions of cooperative arrangements so that as much information as possible could be obtained about patterns of cooperation.⁵ Additional information on the various associations of police departments operating in the area was gathered by telephone or by mail. Telephone follow-up was utilized to confirm the existence of particular types of agreements or to settle discrepancies that developed as the data collection proceeded.⁶

The police departments included in this study were those that served a set of 44 neighborhoods which had been selected for the study of police services provided to citizens in the St. Louis area. (Ostrom, Parks and Smith, 1973). The neighborhoods selected were chosen so that they exhibited variation on the dimensions of wealth (measured by median value of housing), size (measured by population) and racial composition (measured by percent non-White).

The police departments serving these neighborhoods exhibit wide variation in terms of manpower, resources and the kinds of environments

in which they operate. Table I lists the departments together with the size of the population served and the number of full time equivalent officers employed in each department. The departments have been ranked according to the total population each serves. This ordering by size will be maintained for all tables in the following discussion that require a listing of the departments included in the study.

Table I

Police Departments Included in the Study of
Interjurisdictional Cooperation

<u>Police Department</u>	<u>Population Served^a</u>	<u>Number of Officers</u>
City of St. Louis	622,236	2,232
St. Louis County	343,577	433
Florissant	65,908	72
University City	46,309	70*
Kirkwood	31,769	49
Ferguson	28,729	44
Webster Groves	27,455	44
Overland	24,949	36
Bridgeton	19,992	38
Berkeley	19,743	36
Jennings	20,368	42
St. Ann	18,215	26
Crestwood	15,123	26
Hazelwood	14,082	30
Bellfontaine Neighbors	13,987	19
Richmond Heights	13,803	27
Wellston	7,050	25
Breckenridge Hills	7,613	11
Glendale	6,891	10
Rock Hill	6,815	10
Pinelawn	6,517	12
Northwoods	6,051	12
Riverview	3,741	4
Vinita Park	3,936	7
Calverton Park	2,025	5*
St. George	2,033	3*
Beverly Hills	2,025	3*
Bella Villa	1,018	no full-time police

Source: Missouri Law Enforcement Assistance Council Region 5, Criminal Justice System Description 1973

*Indicates figures that were corrected or updated

^aThese figures include primary jurisdictions as well as contract populations served.

Data Preparation

The information collected in the interviews, together with that obtained from other contacts with police officials, constitutes the main source of data for the analyses presented in this discussion. These data were supplemented by information obtained from Census summaries (Bureau of the Census, 1970) and a report prepared by the Missouri Law Enforcement Assistance Council Region 5 (1973). The data were coded so that the primary units of analysis were the dyadic relationships that exist between police departments. Cooperative arrangements among departments were broken down so that for each type of cooperation (mutual aid, for example) the number of dyads of that type were recorded. For each dyad, it was then possible to code attributes of the agreement, together with various attributes of the two partners to the agreement.⁷

In order to focus on cooperation among the 28 police departments in the study and between each of the 28 departments and the rest of those in the St. Louis City-St. Louis County area (36 other departments in total), dyads were aggregated so that for each department, the quantity and variety of agreements were specified. This procedure permits one to test the hypotheses stated above.

Because the primary unit of analysis was a dyad of cooperation - a bilateral link between police departments - it was necessary to find a coding technique by which linkages among departments that are members of an association could be recorded. Clearly, associations of police departments were important vehicles by which cooperation among departments was facilitated.

It was decided to code multilateral relations among a set of departments as a series of bilateral relationships. Thus, for example, an

association of ten police departments, meeting on a regular basis, was disaggregated so that each of the ten departments was shown as having nine dyadic relations with the other members of the association. This coding decision is similar to that adopted by Friesema (1971: 42 and 75) in his study of the Quad-Cities area. But because Friesema had a maximum of ten governmental units with which to deal, his decision to treat multilateral relations among jurisdictions as aggregations of bilateral linkages is less problematic than is the same decision where forty police departments are involved. It is not possible to verify, for all departments who are members of all associations of this size, whether they do interact with all other members in a given time span. However, an in depth study of one association - The Major Case Squad - has indicated that the assumption made here is reasonable. As a voluntary association of over fifty police agencies, this organization provides multiple opportunities for interactions among a wide range of its members.⁸

Several additional coding conventions were adopted for this analysis. Because a primary source of information was interviews conducted with police officials, respondents were not always able to bring together the kinds of information requested of them in a single time frame. Respondents sometimes forget about existing cooperative arrangements they have with other departments or because cooperation is such a routine aspect of day to day activities, specific types of cooperation may not be distinguished from others. Thus, situations arise in which one partner in a dyad will mention an agreement of a particular type and the other will not. These discrepancies can sometimes be reconciled by asking dyadic partners about agreements mentioned in other interviews. But in a significant number of instances, particularly where several interviewers are in the

field on the same day, this is not always possible. Thus, the coding convention utilized by Friesema (1971: 41) was adopted in this study:

A coding decision was made, consistent with other coding decisions in this survey, that any respondent who listed an agreement with another jurisdiction, would be believed over his counterpart's not listing that agreement. It seems very obvious that some of these officials did not recall agreements that were in operation. On the other hand, little reason appeared which would suggest that respondents would be likely to "remember" agreements which, in fact, did not exist.

As Friesema notes, this convention does not capture agreements which neither dyadic partner lists. Thus, a significant problem of undercounting agreements may exist. To reduce this possibility, written records of agreements were collected where possible, copies of contracts were obtained and lists of members of the various associations of police officials in the St. Louis metropolitan area were also obtained.

In the Quad-Cities study, Friesema points out that the attributes which scholars have assigned to formal and informal agreements permit the researcher to classify agreements only with difficulty. (Friesema, 1971: 39-40). It is the case that many analysts who have examined inter-local cooperation in any detail assume that a formal, written agreement is more binding because of its relatively firm legal status than is an informal, verbal agreement. But as Friesema points out, informal agreements are frequently construed by the parties to such agreements as being binding. Indeed, there are no reasons why verbal agreements are not as binding in a legal sense as are written agreements. So long as an exchange between parties occurs as a result of an agreement, be it written or verbal, that agreement is enforceable in a court of law.

Because the formal-informal distinction is one which exists in the literature and in the hypotheses to be tested, it was necessary to code the

data accordingly. The operational criterion chosen to distinguish between formal and informal agreements was that of written versus non-written agreements, respectively.

This study focuses on the horizontal relationships among local police departments in the St. Louis City - St. Louis County area. Thus, cooperative arrangements with various State and Federal law enforcement agencies, although important in their own right, are not considered. Nor are linkages that exist between departments in St. Louis County and those in adjacent counties in Missouri and Illinois. Given the predominance of interactions among those departments within the study frame relative to those between departments in the study and those outside it, this latter limitation does not constitute a serious weakness.⁹

Findings

Each of the six hypotheses stated earlier can be tested with the data collected during the study described in previous sections. In the discussion which follows, each hypothesis will be stated and its status then ascertained in light of the findings from this study:

H₁: A lack of cooperation exists among police departments in multiple jurisdictional settings.

To bring data to bear on this hypothesis, the quantity and varieties of cooperation as revealed by the research are summarized. When cooperative dyads for the 28 departments are totalled, 7165 agreements were recorded. Individual departments have as many as 421 dyadic linkages with other departments in the St. Louis area. Table 2 presents a summary of cooperation for each of the departments in the study.

These figures suggest that a large majority of the departments,

Table 2

Interjurisdictional Cooperation For The Departments In The Study

<u>Department</u>	<u>Number of Cooperative Dyads</u>
City of St. Louis	329
St. Louis County	421
Florissant	341
University City	330
Kirkwood	283
Ferguson	309
Webster Groves	279
Overland	306
Jennings	280
Bridgeton	365
Berkeley	366
St. Ann	273
Crestwood	286
Hazelwood	305
Bellfontaine Neighbors	264
Richmond Heights	329
Wellston	231
Breckenridge Hills	275
Glendale	264
Rock Hill	289
Pinelawn	115
Northwoods	230
Riverview	146
Vinita Park	179
Calverton Park	120
St. George	55
Beverly Hills	141
Bella Villa	54
TOTAL	7,165

including those that have relatively small numbers of officers and population served (see Table I for those statistics), are involved in a large number of cooperative arrangements.

The importance of the various associations of police departments and the facilitative role they play in providing opportunities for cooperation is illustrated by the findings presented in Table 3. Cooperation has been categorized into that which is a result of a given department's membership in various associations, and that which is not.

Twenty departments are involved in substantially more agreements as association members than they are in agreements that are not a product of such memberships. A total of fourteen associations in the St. Louis area constitute the bases for this type of cooperation. They are: The Board of Governors of Law Enforcement Officials of Greater St. Louis, Code 1000, Criminal Information Exchange Committee, Greater St. Louis Identification Association, Law Enforcement Officials of St. Louis County, Major Case Squad, M.A.T.E. (Mutual Activities Traffic Enforcement), Metro Combat League, Narcotics Task Force, Normandy Municipal Council, St. Louis Metropolitan Police Juvenile Officers Association, St. Louis County Municipal Police Officers Association, T.E.A.M. (Traffic Engineering Association of Metropolitan St. Louis), and the West County Juvenile Officers Information Exchange.

Each is a separately organized group of law enforcement agencies, consisting of member departments and in some cases, other criminal justice agencies.¹⁰ Membership and participation in these associations is largely voluntary and, as their titles suggest, their goals are quite diverse. Indeed, the variety of reasons why associations have been formed is reflected by the range in types of cooperation that exist in

Table 3

Extent of Cooperation Resulting From Membership in Associations

<u>Department</u>	<u>% Cooperation as Association Members</u>	<u>% Other Cooperation</u>	<u>Total Agreements</u>
City of St. Louis	44.7	55.3	329
St. Louis County	47.0	53.0	421
Florissant	70.1	29.9	341
University City	68.2	31.8	330
Kirkwood	70.0	30.0	283
Ferguson	68.6	31.4	309
Webster Groves	67.4	32.6	279
Overland	64.7	35.3	306
Jennings	68.6	31.4	280
Bridgeton	72.3	27.7	365
Berkeley	67.8	32.2	366
St. Ann	64.1	35.9	273
Crestwood	78.7	21.3	286
Hazelwood	67.5	32.5	305
Bellfontaine Neighbors	71.2	28.8	264
Richmond Heights	71.1	28.9	329
Wellston	55.0	45.0	231
Breckenridge Hills	54.9	45.1	275
Glendale	62.5	37.5	264
Rock Hill	65.4	34.6	289
Pinelawn	38.3	61.7	115
Northwoods	64.3	35.7	230
Riverview	48.6	51.4	146
Vinita Park	76.0	24.0	179
Calverton Park	40.0	60.0	120
St. George	5.5	94.5	55
Beverly Hills	42.6	57.4	141
Bella Villa	7.4	92.6	54
AVERAGE AGREEMENTS		106	96 TOTAL 7,165

the St. Louis area.

Table 4 displays the variety and frequencies of different kinds of cooperation that exist among police departments in the St. Louis area. In order to present these data, it was necessary to remove redundant dyads from the total number recorded for the 28 departments in the study. Because department A can mention department B and B can mention A with respect to a given kind of cooperation, an accurate estimate of the totals of different kinds of arrangements necessitated the elimination of one reported dyad in the aforementioned instances. Dyads between departments in the study and those outside it were not affected by the procedure.¹¹

Information exchange agreements and mutual aid agreements are clearly the most frequent of those recorded. In fact, together they account for 82 percent of all agreements. Police departments in the St. Louis area appear to have developed extensive means by which they can share information and have also developed a rich set of arrangements by which they can come to one another's assistance. These facts cast considerable doubt upon assertions to the effect that in multiple jurisdictional settings criminals can escape detection by simply moving across jurisdictional boundaries.

The 2838 agreements that have been classified as information exchange arrangements can be disaggregated to display the variety of activities that accompany information exchanges among departments. Table 5 presents this set of agreements. In addition to agreements that are primarily used to exchange information then, there are a variety of arrangements that accomplish other objectives as information is exchanged. The policy

Table 4

Types of Cooperation In The St. Louis Area

<u>Type</u>	<u>Frequency</u>	<u>Percent</u>
Information Exchange	2,838	51.9
Mutual Aid	1,644	30.0
Road Block Agreements	483	8.8
Police Radio Tie-ins	291	5.3
Training or Education	79	1.4
Laboratory Sharing	63	1.1
Dispatching	35	.6
Cross-Deputization	20	.4
Equipment Sharing	15	.3
Joint Purchasing	1	0
General Services	1	0
TOTAL	5,470	99.8%

Table 5

Agreement Types that Accompany Information Exchange

Type	Frequency	% of All Agreements
Information Exchange	1611	29.5
Information Exchange and Policy Coordination	868	15.8
Information Exchange and Mutual Aid	321	5.9
Information Exchange and Recreation	29	.5
Information Exchange or Training	9	.2
TOTAL	2838	51.9

coordination element in sixteen percent of all agreements is an indicator of the extent to which police departments in the St. Louis area have consciously developed means to articulate the joint interests of departments. Two distinct kinds of policy coordination are discernable. Individual officers or departments may perceive a problem that is worth bringing to the attention of other agencies. Associations that play a policy coordination role are the vehicles by which solutions are sought to problems that affect the several interests represented in the area.

Acting collectively, departments can also articulate demands for changes in extant state legislation as it affects the provision of police services in the entire St. Louis area. For example, the existing minimum training standards law, a state statute,¹² was enacted in large part due to efforts by members of the Board of Governors.

An additional aspect of the cooperation recorded merits examination, since it bears directly upon an assumption made by Dye, et al. (1963) in their study of cooperation in the Philadelphia area. Basically, they argued that because most cooperation occurred between adjacent departments, only linkages between adjacent departments would be examined in their study. Their focus was restricted even more by their definition of cooperation as only those agreements that involved the joint financing of some facility and its administration by one unit. If their definition is relaxed to permit the inclusion of written agreements between departments, an interesting pattern emerges, as presented in Table 6.¹³

The bulk of written agreements occur between departments that are not adjacent, a fact that underscores the importance of examining relationships among more than just the contiguous agencies in a metropolitan area.¹⁴

Table 6

Distribution of Written Agreements Between Contiguous and Non-Contiguous Departments

Department	Number of Written Agreements		Total
	% Contiguous	% Not Contiguous	
City of St. Louis	0.0	0.0	0
St. Louis County	43.1	56.9	72
Florissant	9.3	90.7	43
University City	2.6	97.4	39
Kirkwood	13.3	86.7	45
Ferguson	17.0	83.0	47
Webster Groves	17.4	82.6	46
Overland	26.8	73.2	56
Jennings	33.3	66.7	27
Bridgeton	8.7	91.3	46
Berkeley	10.3	89.7	39
St. Ann	11.4	88.6	44
Crestwood	12.8	87.2	47
Hazelwood	11.1	88.9	45
Bellfontaine Neighbors	4.7	95.3	43
Richmond Heights	11.9	88.1	42
Wellston	2.4	97.6	42
Breckenridge Hills	16.3	83.7	49
Glendale	13.6	86.4	44
Rock Hill	2.5	97.5	40
Pinelawn	4.3	95.7	46
Northwoods	5.0	95.0	40
Riverview	12.8	87.2	47
Vinita Park	22.2	77.8	9
Calverton Park	2.4	97.6	42
St. George	0.0	100.0	44
Beverly Hills	0.0	100.0	40
Bella Villa	2.0	98.0	43
AVERAGE AGREEMENTS	5	37	TOTAL 1167

To summarize the discussion related to H_1 , it is clear that there is a large quantity of cooperative arrangements in the St. Louis area and that there is also a wide variety of cooperation. Given these facts, the reform-related assertion that states that there is a lack of cooperation appears to be disconfirmed.¹⁵

Two additional hypotheses address the issue of the quantity of cooperation in multiple jurisdictional settings:

H_2 : Cooperation among police departments tends to be sporadic.

H_3 : Cooperation among contiguous police departments tends to be sporadic.

The term "sporadic" is one which does not lend itself to a problem-free empirical interpretation. If a synonym is substituted, the term can mean "infrequent", but given the absence of extant research that has established a norm for frequent cooperation, it is necessary to stipulate an operational meaning, keeping in mind that further research should attempt to conduct comparisons with the present findings to establish a basis for judging the relative frequency of cooperation.

A frequent instance of cooperation will be stipulated as cooperation which occurs at least once a month. This cutting point will be used to test the two hypotheses stated previously. Table 7 presents the necessary findings.

Both hypotheses appear to be disconfirmed. Nineteen of 28 departments cooperated frequently more often than infrequently when all other departments (contiguous and otherwise) are considered. In the majority of these cases, the margin of frequently used dyads is substantial. With respect to contiguous departments, 23 departments cooperated frequently with their neighbors more often than

they cooperated infrequently. Again, in a majority of these cases the ratio of frequently used agreements to infrequently used ones is considerably greater than one. Given these findings, it is also the case that contiguity of departments has an effect on the frequency with which agreements are used in cooperative activities. The average percentage of frequently used arrangements for the 28 departments increases from 56 percent to 64 percent as one moves from a consideration of agreements between all departments to those between contiguous departments.

It would appear that cooperation among police departments in this multiple jurisdictional setting does not tend to be sporadic. One caveat is in order, however. Because of the difficulty in obtaining estimates for the frequency of usage of cooperative agreements, a large number of non-responses accrued. As can be seen, the totals for each of the two unpercentaged columns of Table 7 do not sum to the total number of agreements reported in conjunction with the testing of Hypothesis 1. Thus, the results of this test of the two hypotheses have to be evaluated with this fact in mind.¹⁶

The three remaining hypotheses pertain to the variety of cooperative arrangements found in multiple jurisdictional settings. Two of the three can be tested in much the same manner as were H_2 and H_3 .

They are:

H_4 : Cooperation among police departments in multiple jurisdictional settings tends to be informal.

H_5 : Cooperation among contiguous police departments tends to be informal.

Table 8 presents the findings that bear upon these hypotheses.

When "formal" is operationalized as "written" both hypotheses appear to

Table 7

Frequency of Cooperation

Departments	Cooperation for All Departments and for Contiguous Departments			Contiguous Departments		
	% of Frequently Used Agreements	% of Infrequently Used Agreements	Number	% of Frequently Used Agreements	% of Infrequently Used Agreements	Number
City of St. Louis	76.0	24.0	203	81.0	19.0	75
St. Louis County	71.2	28.8	246	73.4	26.6	136
Florissant	55.3	44.7	262	59.6	40.4	32
University City	56.7	43.3	223	57.1	42.9	46
Kirkwood	76.4	23.6	202	81.2	18.8	31
Ferguson	48.8	51.2	232	43.1	56.9	45
Webster Groves	75.1	24.9	197	80.0	20.0	50
Overland	51.3	48.7	205	50.0	50.0	42
Jennings	65.0	35.0	216	61.6	38.4	51
Bridgeton	66.0	34.0	263	80.8	19.2	26
Berkeley	58.1	42.9	292	60.3	39.7	53
St. Ann	58.0	42.0	180	71.0	29.0	24
Crestwood	60.3	39.7	220	90.6	9.4	23
Hazelwood	50	50.0	232	58.0	42.0	24
Bellfontaine Neighbors	43.4	56.6	217	52.1	47.9	31
Richmond Heights	59.1	40.9	235	66.0	34.0	38
Wellston	50.5	49.5	136	69.2	30.8	16
Breckenridge Hills	40.0	60.0	182	56.0	44.0	32
Glendale	56.0	44.0	180	68.0	32.0	38
Rock Hill	61.7	38.3	188	76.6	23.4	31
Pinelawn	38.1	62.9	68	25.0	75.0	8
Northwoods	60.0	40.0	188	59.3	40.7	22
Riverview	29.1	70.9	99	68.1	32.9	9
Vinita Park	48.6	51.4	146	37.5	62.5	13
Calverton Park	7.1	92.9	75	25.0	75.0	8
St. George	100.0	0.0	1	100.0	0.0	1
Beverly Hills	23.0	77.0	93	52.8	47.2	19
Bella Villa	100.0	0.0	2	100.0	0.0	2
AVERAGE	100	78	4983	AVERAGE	22	926
		TOTAL			TOTAL	
		78	4983		11	926

Table 8

Written and Unwritten Cooperative Arrangements

Departments	Cooperation With All Departments and With Contiguous Departments							
	All Departments				Contiguous Departments			
	Percent Written	Percent Unwritten	Percent Don't Know	Number	Percent Written	Percent Unwritten	Percent Don't Know	Number
City of St. Louis	0.0	55.9	44.1	329	0.0	46.8	53.2	94
St. Louis County	17.1	76.5	6.4	421	14.0	78.4	7.7	222
Florissant	12.6	77.1	10.3	341	9.1	77.3	13.6	44
University City	11.8	83.3	4.8	330	1.3	78.2	20.5	78
Kirkwood	15.9	74.6	9.5	283	13.0	82.6	4.3	46
Ferguson	15.2	83.8	1.0	309	12.9	85.5	1.6	62
Webster Groves	16.5	72.4	11.1	279	12.5	76.6	10.9	64
Overland	18.3	73.2	8.5	306	23.1	70.8	6.2	65
Jennings	9.6	77.1	13.2	280	13.0	71.0	15.9	69
Bridgeton	12.6	79.5	7.9	365	10.3	74.4	15.4	39
Berkeley	10.7	83.1	6.3	366	6.1	73.3	16.7	66
St. Ann	16.1	73.6	10.3	273	13.5	75.7	10.8	37
Crestwood	16.4	83.2	.3	286	18.8	81.3	0.0	32
Hazelwood	14.8	83.6	1.6	305	15.2	78.0	6.0	33
Bellfontaine Neighbors	16.3	80.3	3.4	264	5.4	73.0	21.6	37
Richmond Heights	12.8	79.0	8.2	329	10.2	77.6	12.2	49
Wellston	18.2	71.4	10.4	231	4.2	54.2	41.7	24
Breckenridge Hills	17.8	73.5	8.7	275	20.5	48.7	30.8	39
Glendale	16.7	79.2	4.2	264	11.7	72.2	16.1	54
Rock Hill	13.8	74.4	11.8	289	2.0	74.0	24.0	41
Pinelawn	40.0	59.1	.9	115	18.2	72.9	8.9	11
Northwoods	17.4	69.6	13.0	230	8.4	56.0	35.6	25
Riverview	32.2	65.1	2.7	146	43.0	43.0	14.0	14
Vinita Park	5.0	84.0	11.0	179	10.0	75.0	15.0	20
Calverton Park	35.0	60.0	5.0	120	10.3	70.7	19.0	9
St. George	80.1	11.0	8.9	55	0.0	40.0	60.0	5
Beverly Hills	28.3	50.7	21.0	141	0.0	35.0	65.0	20
Bella Villa	80.0	9.0	11.0	54	0.0	20.0	80.0	5
AVERAGE	42	198	24 TOTAL	7165	AVERAGE 5	33	8 TOTAL	1305

Table 9

Types of Unwritten Cooperation		
Type	Frequency	Percent
Information Exchange	1539	37.3
Information Exchange and Policy Coordination	868	21.0
Mutual Aid	757	18.3
Road Block Agreements	469	11.3
Information Exchange and Mutual Aid	273	6.6
Police Radio Tie-ins	127	3.0
Laboratory Sharing	63	1.5
Information Exchange and Recreation	29	.7
Joint Purchasing	1	0.0
TOTAL	4126	99.9

be confirmed. For all agreements with all departments (contiguous and otherwise), 27 of the 28 departments in the study had a majority of unwritten agreements. If the focus is narrowed to agreements between contiguous departments, 23 out of 28 had a majority of unwritten agreements. Inspection of the percentages in Table 8 indicates that in most instances, the majority of unwritten agreements is substantial. Even if the "Don't Know" responses are assumed to be written agreements, the results of this analysis do not change.

The final hypothesis to be tested can be stated thus:

H_6 : Informal cooperation tends to be of a mutual aid nature.

To test this assertion, it is appropriate to array the kinds of unwritten cooperation found among police departments, recording the relative frequencies of each type. Table 9 presents the results.

It is clear from the figures that unwritten cooperation does not tend to be of a mutual aid nature. In fact, mutual aid accounts for only eighteen percent of the unwritten cooperation recorded whereas information exchanges account for more than twice this amount. Given this data it is possible to conclude that H_6 is not confirmed. The variety of types of unwritten cooperation (nine in all) also suggests that police departments find it worthwhile to enter into more kinds of agreements than is suggested by proponents of the reform position.

Conclusions

Four of the six hypotheses that were stated in the section The Hypotheses have been disconfirmed by the tests outlined in this discussion. The two that were confirmed, H_4 and H_5 , both focus on the distinction between formal

and informal cooperation among police departments. As was stated earlier in this discussion, the defining criteria for these two types of cooperation have tended to incorporate an assumption that merits independent empirical examination. The assumption is that formal agreements are more binding than informal agreements on the parties involved.

In the St. Louis area, informal (unwritten) agreements often involve no more than a verbal commitment by members of such dyads and constitute the basis for exchanges of services that are as regularized as services provided under written agreements. For example, municipal police departments often request assistance from neighboring jurisdictions if their own patrol units are busy when a need arises. A given department will provide this kind of help to its neighbors because it, too, will probably require assistance at some point in the future. These kinds of exchange arrangements serve to increase the effective capacity of police departments during peak loading periods. Also, because such reciprocal agreements obviate the need to build producing units with a great deal of excess capacity, they result in substantial savings for any given department. The reciprocal nature of these exchanges tends to make informal agreements self-enforcing. The multiple number of associations also provide members with a means for exchanging information, advice and other valuable services that serve to reduce the degree of uncertainty and cost involved in the execution of their tasks. But more than examples of these kinds of agreements are necessary if the assumption mentioned previously is to be tested directly. Clearly, further research efforts directed at this issue are warranted.

Given that four of the hypotheses were disconfirmed, it seems reasonable to question both the diagnostic assessment and the policy

prescriptions that are used in proposals for consolidation. The case for consolidation or for more formal cooperation is not clear cut. Indeed, it is not certain if more formal cooperation would improve the quality of police services. More generally, relationships between quantities and varieties of cooperation on the one hand, and police performance on the other, have not yet been systematically examined.

The bulk of this discussion has focused upon cooperation among police departments in one multiple jurisdictional setting. It is clear that generalizations that are intended to apply to all such settings throughout this country cannot be disconfirmed one and for all on the basis of one test. But by continuing research that bears upon the problem of relationships among producers of public services in multiple jurisdictional settings, it should be possible to generate other tests of these hypotheses - a step that is necessary if the results of this test are to be corroborated.

Because this discussion has emphasized cooperation, it should not be assumed that the problem of conflict among producers of police services has been ignored in this research. In fact, repeated inquiries were made of police officials concerning conflicts in their relationships with other departments. With very few exceptions, they reported almost no instances where conflicts developed to such an extent that relations with other agencies were affected. Thus, to emphasize cooperation means only that little can be said about conflicts among departments. But this finding, as is the case with the others reported here, is not intended as one that can be readily generalized to all other multiple jurisdictional settings.¹⁷

The multiple jurisdictions inherent in federal systems of government

NOTES

¹Elinor Ostrom, Roger B. Parks and Dennis C. Smith (1973) "A Multi-Strata, Similar Systems Design for Measuring Police Performance," a paper presented at the Midwest Political Science Association Annual Meeting, Chicago, May 2-5, 1973; Roger B. Parks (1974) "Complementary Measures of Police Performance," in Kenneth Dolbeare, ed. Sage Yearbook in Politics and Public Administration: Evaluative Research. Beverly Hills: Sage Publications; and Dennis C. Smith and Elinor Ostrom (1974) "The Effects of Training and Education on Police Attitudes and Performance: A Preliminary Analysis," in Problems in the Criminal Justice System, ed. by Herbert Jacob, Vol. 3, Sage Criminal Justice Systems Annuals (Beverly Hills, Sage Publications) (Forthcoming)

²In addition to surveys and reports that focus on the police, there has been a considerable volume of literature generated from a large scale survey conducted in the St. Louis metropolitan area during the 1956-57 period. That survey focused on a range of topics: the governments and services provided, the people in the metropolitan area and the economy of the metropolitan area. The major volume, (1964) Exploring the Metropolitan Community (Berkeley: University of California Press) was edited by John C. Bollens. The position of the authors on fragmentation, coordination, and the need for consolidation is substantially the same as others who have researched the St. Louis area to date:

Consensus on matters of area-wide concern must be reached within the framework of total community welfare. Lacking an area-wide government, voluntary cooperation together with informal and private means must be used to reach any decision. Such methods are generally insufficient; they frequently lead to no agreement or to agreements that cannot possibly be carried out within the existing governmental framework. They are, moreover, partial and particular rather than complete and general devices. Without a formal mechanism for central decision-making in a metropolitan area, there can be no way of evaluating the segmented forces of interest and pressure groups in the light of the functional aims and well-being of the whole community (p.94).

ment, on the basis of evidence found in this study of the St. Louis metropolitan area, appear to have developed cooperative arrangements that work on a highly regularized basis. Coordination can be obtained by cooperation among independent jurisdictions of equal legal standing as well as by the directives of superiors to subordinates. Which works to gain better results can only be answered with more extended inquiries.

³See, for example, Bruce Smith (1960) Police Systems in the United States. Second revised edition (New York: Harper and Brothers), p. 23 and Report Presented to the Office of Law Enforcement Assistance of the United States Department of Justice for the President's Commission on Law Enforcement and the Administration of Justice (1966) Effective Police Organization and Management, Volume 2 (California State College at Los Angeles, Department of Police Science), pp. 92-97.

In addition to discussions which focus on the existence of cooperative arrangements among local police forces, there is also literature which points to the existence of cooperation among other kinds of functional units and governments in metropolitan areas but does not present data to substantiate such assertions. See, for example, Peter A. Korn (November, 1968) "Updating Local Government Through Inter-local Agreements," Municipal Finance 41: pp. 93-99 and H. Paul Friesema (1968) "The Metropolis and the Maze of Local Government," Urban Affairs Quarterly 2, pp. 68-90. Friesema challenged four assertions made by scholars who have, in Friesema's words, ". . . a common commitment to empirical research upon metropolitan questions; an interest in, sympathy with and often a direct connection with the reform movement . . ." (p.73):

(1) Local intergovernmental relations between the jurisdictions within metropolitan areas are ad hoc and sporadic.

(2) While other sectors of the metropolitan community are becoming increasingly interdependent, the political integration of the metropolitan area is standing still.

(3) "Political integration" is considered as a synonym for formal unification. It is a state to be achieved rather than a continuing process.

(4) Special districts, service agreements and other contractual arrangements for solving individual metropolitan area problems, are not satisfactory solutions to the many problems of our metropolitan areas, at least in comparison to complete governmental unification.

⁴Friesema's research uncovered a total of 71 interjurisdictional agreements among police departments in that area. These agreements are reported as: mutual aid-21, police radio tie-ins-23, coordinated road block system-14, arrest information system-12, and a policing agreement on the Rock Island Bridge-1 (p.147).

⁵I would like to thank Nancy M. Neubert, Elinor Ostrom, Roger B. Parks and Dennis C. Smith of the St. Louis Project group and Tom Sowash of the University of Missouri, St. Louis for their assistance in gathering the data that constitute the basis for the analyses presented in this discussion.

⁶Bittner (1970: 64) in connection with his discussion of secrecy within police departments remarks, ". . . and, of course, no members of the (typical) department talk about anything remotely connected with police work with outsiders." The experiences of the writer and his colleagues belie this assertion. With very few exceptions, the police officials we contacted were very cooperative. Indeed, interviews that were scheduled to be thirty minutes long would extend to two hours. This made it possible to explore interjurisdictional cooperation in much more detail than might have been the case had each interview been more structured.

⁷I would like to thank Roger B. Parks for his assistance in the preparation of these data. His skill in programming portions of the coding operations made this entire study much less difficult to execute. I would also like to thank Barbara McDavid for her assistance in coding those data that could not be coded with a computer.

⁸The author had an opportunity to attend the Tenth Annual Retraining Session of the Major Case Squad, held over three days from April 8 to April 10, 1974. The stated purpose of those sessions is to bring Squad members up to date on various aspects of criminal investigation. A less obvious but nevertheless equally important purpose appeared to be the creation of an environment for the interaction of Squad members from police agencies throughout the metropolitan area. In addition to these annual training sessions, Squad members are called upon to perform as members of multi-departmental teams of officers when the Squad is called into action. During its ten years as an association, 22 such occasions have occurred.

⁹Vertical and horizontal linkages that extend beyond those considered here are discussed in more detail in case studies of the operations of the Board of Governors and the Major Case Squad, two associations of criminal justice agencies operating in the metropolitan area. See the author's forthcoming dissertation, "Jurisdictional Multiplicity, Inter-jurisdictional Relations and Police Performance," Indiana University.

¹⁰The Board of Governors in particular is an association which includes police departments and the St. Louis County prosecutor. In 1965 a judge in St. Louis County, as the chairman of the Board of Governors, was instrumental in the forming of the Major Case Squad in the St. Louis metropolitan area.

¹¹I would like to thank Dr. John F. Hamilton, Jr. for his assistance in writing a program to accomplish the task outlined here.

¹²An. Mo. Stat. Section 66.250 (Supp. 1974).

¹³Table 6 focuses on written agreements alone, making it impossible for the reader to assess the distribution of all agreements between the written and non-written categories. This information is presented in Table 8.

¹⁴It is important to note that in St. Louis County, the County police department, although having the legal authority to police the incorporated communities, does not enter a municipal jurisdiction unless requested by the local police. Thus, what appears as an instance of jurisdictional overlap from a formal standpoint is otherwise from a behavioral perspective. This fact underscores the need to examine multiple jurisdictional settings empirically before conclusions that have policy implications are drawn.

¹⁵It might be argued, nevertheless, that in spite of the amounts and variety of cooperation, there is still a lack of same in the area. The basis for this argument rests in the reform contention that the kinds of cooperation discussed here are still insufficient to facilitate high levels of performance. It is not possible to address this issue in the discussion. However, the author does examine the relationships between quantities and varieties of cooperation and performance levels in his dissertation. (McDavid, forthcoming).

¹⁶It should not be assumed, however, that biases have been introduced as a result of non-responses. There did not appear to be any significant relationships between an inability to estimate frequency of usage and other attributes of agreements.

¹⁷Elinor Ostrom, Roger B. Parks and Gordon P. Whitaker are the principal investigators in a recently initiated cross-metropolitan study of the delivery of police services to urban populations. This study will focus in part on the relationships that exist among the producers of police services in a variety of settings, some of which will make it possible to re-test the hypotheses examined in this discussion.

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