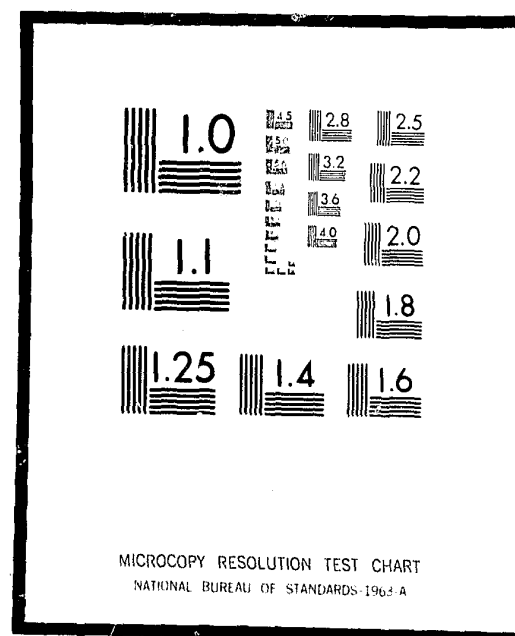


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1/12/76

PHASE I NATIONAL EVALUATION OF SELECTED PATROL STRATEGIES, SPECIALIZED PATROL OPERATIONS UNDER THE NATIONAL EVALUATION PROGRAM

Product 1 - Literature Search

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This project was supported by Grant No. 75-NI-99-0067, awarded by the Law Enforcement Assistance Administration, U.S. Department of Justice, under the Omnibus Crime Control and Safe Streets Act of 1968, as amended. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

ABSTRACT

This report, prepared by the Institute for Human Resources Research for the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, is part of the effort for the National Evaluation Program. This report contains a review of literature relevant to specialized patrol operations. This has been supplemented by material from an IHRR survey of police departments. The major issues investigated in this report are:

- . The types, uses and effects of specialized patrol
- . The methods of data collection and review
- . The organizational consequences of specialization
- . The impact of specialized patrol on the community
- . The evaluation of specialized patrol activities

Three types of specialized patrol are investigated:

- . Civilian clothes units
- . Uniformed tactical units
- . Use of mechanical devices

These are further analyzed by uses:

- . Location oriented
- . Crime oriented
- . Suspect oriented

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SUMMARY

This is the first in a series of reports being prepared by the Institute for Human Resources Research (IHRR) for the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration. The IHRR effort is designated to assist the Institute in fulfilling the goals of its National Evaluation Program. Like other participants in this national coordinated effort, we have looked at particular ideas for reducing crime and particular approaches for improving the criminal justice system to determine which ideas and approaches are successful under a variety of conditions, organizations and management structures. However, in keeping with our assigned task, we have focused our view on specialized patrols and the tactics employed by these patrols.

This particular report is based primarily upon a review of literature relevant to specialized patrol activities and evaluations of these activities. Where pertinent, we have supplemented the literature review with preliminary findings gathered from a survey of police departments by the IHRR. The major issues of concern are:

- . the types, uses and effects of specialized patrol
- . the methods of data collection and review
- . the organizational consequences of specialization

- . the impact of specialized patrol on the community
- . the evaluation of specialized patrol activities

A. Specialized Patrol: Types, Uses and Effects

In the introductory chapter, we note that the concept of law enforcement is deeply embedded in our Anglo-American culture. It provides a means whereby government can ensure an orderly society and the protection of its citizens. These objectives are most often achieved by police departments which operate more or less autonomously at the local level. Local control of police departments was conceived as a means of separating these governmental responsibilities from partisan politics.

Over the years, police departments have begun to rely increasingly upon specialized patrols to help combat crime. An IHRR survey, still underway, suggests that three fourths of police departments serving communities of 50,000 or more persons rely upon one or more types of specialized patrol operations.

Three forms of specialized patrol seem in most frequent use: civilian clothes units, uniformed tactical units and the use of mechanical devices. The civilian clothes units, of course, decrease the visibility of the police and enhance their ability to combat certain forms of crime. Uniformed tactical units concentrate on complementing the work of traditional patrol units and are designed to cope with critical situations in order to permit a saturation of police power at a given time

or place to meet a specific problem. Mechanical devices, such as alarm systems and night vision devices, bring sophisticated technology to bear on the problem of crime.

These and other forms of specialized tactics are cited in the literature as effecting increases in arrests and decreases in crimes while also being cost-effective. There is little in the way of research findings to substantiate these claims of effectiveness.

Based upon our preliminary literature review, IHRR concludes that (1) there are too few published evaluations of specialized patrol projects and (2) the quality of existing evaluations is often unacceptable to the research community. This lack of dependable information on successful and unsuccessful strategies makes it difficult for police administrators to make informed decisions regarding allocations of resources for specialized patrols.

B. Data Collection and Review

The literature review upon which this report is primarily based included an examination of both published and unpublished books, foreign and domestic reports, academic papers, formal and informal evaluations, articles and abstracts. These data fall into a number of different categories, such as "Research and Experimental Design," "Project Evaluations," "Law Enforcement Instruction," "Sociological," etc. This data collection is still underway and we anticipate finding a number of new documents, especially in the field of project evaluations.

To date, IHRR has analyzed almost 600 information sources relevant to specialized patrol operations. The thousands of sources from which these materials were derived included LEAA grant abstracts and numerous documents obtained directly from State Planning Agencies, police departments across the nation, public and private libraries and various Federal government agencies.

In conducting the literature review and survey, IHRR has relied considerably upon staff who are familiar through work and educational experience with police operations. These staff members were guided, were relevant, by IHRR senior staff whose major experience and training has been research and evaluation per se. As a first step, all staff delineated relevant issues and categories of concern; these issues and topics were then assigned to staff on the basis of their past experiences and training.

C. Organizational Consequences of Specialization

In Chapter 3 we briefly review some general theory on organizations and specialization within organizations. Organizational structure, of course, welds together many types of resources into a unique problem-solving whole in order to satisfy particular human needs. Specialization within organizations is the grouping of similar tasks or functions to efficiently achieve organizational objectives. Both concepts are congruous with the thinking of police administrators.

Specialization within police organizations varies, partly as a function of the size of the department. Specialized patrols can occupy various levels within the structure of a police department; however, quite often specialized patrols operate somewhat autonomously, much like traditional patrol divisions and traffic divisions. In other cases, specialized patrols operate at the district or precinct level rather than the divisional level.

The major question we address is: What are the advantages and disadvantages of specialization? In seeking an answer to this question, we have taken the position that specialization per se should be regarded as neither desirable nor undesirable; rather, one should view the actual circumstances and need in each case before making a judgment.

Where specialization is needed, it appears to offer at least five advantages. One is that it leads to the specific placement of responsibility for the performance of tasks. Because specialization leads to a clear designation of duties, responsibilities and objectives, unit commanders can be held accountable for the unit's level of efficiency. Secondly, specialization also seems to bring about improvements in training, especially since it provides an opportunity for more intensive training than is feasible for the generalist. Thirdly, when a small group is made responsible for a specific task, the group tends to form a cohesive unit which, under proper conditions, can generate further advantages--job satisfaction

and good morale. Fourthly, because of their definite responsibility and pride in their unit, specialized personnel may develop a proprietary interest in departmental operations that relate to their field; thus, specialization may stimulate interest and participation in the unit's work. Finally, specialized patrols may arouse public interest. Where this interest is positive in nature, it aids in securing necessary support for the department and in enhancing police-community relations.

However, specialization may be implemented unnecessarily or in excess so that it becomes detrimental to the department. It then creates problems of coordination between the specialists and nonspecialists in the department, adversely affects morale and job satisfaction, complicates tasks of command, hampers executive development and arouses negative public reaction. It may also lead to "empire building" and to unnecessary imitation, that is, to specialization within small departments where it is not needed.

Although specialization can broaden the span of control within police departments, it often jeopardizes unity of command by creating conflict among individuals under a common leadership. This is most likely to occur at the district/precinct level when specialization is implemented at the divisional level. The extra level of authority that may ensue from specialization can impede the easy flow of information up and down channels of control, limit the ability

of the leader to control operations and diminish the effectiveness of his authority. Such disadvantages need to be considered carefully, together with possible advantages, when planning specialized patrol operations.

D. The Impact of Specialized Patrol on the Community

The apprehension of criminals through the use of specialized patrol will inevitably interact with the community environment. Actions taken by the police may have unforeseen effects on citizens not directly involved in the crime situation and these effects, in turn, may lead to either friendly or hostile relations between police and the community. The impact seems to depend upon whether the effects of the specialized patrol tactic on the community have been given sufficient consideration by police in planning their implementation of patrol operations.

The literature frequently mentions the importance of good community relations to effective police work. Police are urged to be aware of the feelings of citizens and to explain to them the need for specialized patrols. Police are also urged to be open to feedback from citizens as to what actions they perceive the community needing from the police.

In spite of this emphasis on good community relationships in police administrative guides, little research can be identified as bearing specifically on the impact of specialized patrol on community relations. The news media, however, frequently report on adverse citizen reaction to

specialized patrol. Such critical news coverage, while not scientifically valid, can lead to difficulties in funding and in carrying out necessary police duties. Community impact, thus, needs to be considered in the planning of specialized patrol operations.

A number of police departments do deploy specialized patrol officers to particular areas on the basis of crime statistics. Consequently, many are employed in the densely populated inner city areas with high reported rates of crimes. However, these specialized units are not assigned for long periods of time; they may not become well acquainted with the neighborhood residents and may acquire a detached attitude about the community both of which invite negative effects on police-community relations.

The qualifications for personnel employed in specialized patrol units may be a factor in police-community relations also. The selection criteria usually call for young, aggressive officers with good records of arrests. The short duration of their employment raises the question as to whether or not their length of service is sufficient for building a record of complaints.

IHRR survey staff have noted that specialized patrol units are usually located at a central headquarters and, thus, are removed from the areas of frequent patrol. This placement factor separates them from the community and may be another factor that leads citizens to develop distrust and adverse feelings toward these units.

However, the literature indicates that any police officer's contact with the public (including the business community) can be either positive or negative. A typical tactical unit while performing saturation patrol may simultaneously reduce street crime and also transmit the impression of an occupying force. Or, it may increase a community's sense of well-being, even without a reduction in crime. A major factor in this impact seems to be whether or not the police are seen as oppressors by the community. Examples of such varying effects appear in Chapter IV.

Much of the negative impact resulting from the use of specialized patrols apparently is a result of police insensitivity to minority groups. Race relations appeared late in police work but have gained importance in recent years. Despite the increased emphasis on race relations, surveys indicate that black citizens hold less favorable attitudes toward police than do white citizens.

The fact that some specialized patrol tactics raise serious legal and ethical issues also enters into police-community relations. For example, suspect oriented patrol (keeping an offender under observation while waiting for him to commit a crime) may be perceived as harassment, decoy units may be interpreted as entrapment responsible for inducing crime and so on.

Public distrust of police methods of handling complaints has resulted in demands for establishing review boards on which citizens, as well as police, serve. Opponents feel that police should review their own colleagues' actions and that civilian review may hamper police decisiveness. Proponents, on the other hand, feel that civilian review can reduce the tension between the citizenry and the police and that it will give the public more confidence that the review process is fair and impartial. The literature suggests that police review boards, with or without citizen participation, can be useful in assessing the community impact of specialized patrols. If these investigations were publicized and circulated to other police departments, a somewhat better picture of the positive or negative aspects of specialized patrol would be available.

E. Evaluation

Although the positive benefits of specialized patrol are frequently espoused, there are few methodologically sound evaluations to substantiate these claims. Thus, police administrators and other officials lack the crucial information needed to arrive at definitive conclusions regarding the success or failure of a particular patrol method, the effects of a method on agency productivity, or the cost-effectiveness of a particular method as compared to alternative methods. Insufficient information also hampers their ability to assure management control of the project or to

determine whether or not similar projects should be used in other jurisdictions.

Effective evaluation of specialized patrol methods is hampered by many factors. One is the tendency of police departments to define their goals in global terms such as "reduction of crime." Without measurable operational definitions of goals and objectives, evaluation becomes difficult and, indeed, often meaningless.

Another barrier to effective evaluation is the reliance upon three basic criteria: 1) crime rates, 2) arrest rates, and 3) clearance rates.

The crime rate (i.e., the number of different types of crime in a jurisdiction per year normalized to a standard population) is almost certain to be a underestimate of the extent of crime in an area since it reflects reported and not actual crime. Its dependability as a measure of effectiveness is, therefore, generally unreliable. This weakness in the basic data on crime statistics has led some persons to consider as futile any analysis of crime rates.

Despite the problems with the reliability of crime rates, they remain the most timely information available to the police to assist them in tactical decisionmaking. There are ways of improving the quality characteristics of this measure. One is to develop methods to improve reporting; that is, incentives that will counter the resistance of victims, policemen and governments to report certain crimes.

Such incentives might range from reducing the red tape and/or embarrassment often experienced by victims of crime to abandoning the policy of comparing the reported crime rates of one jurisdiction with those of another in order to eliminate the political and economic repercussions that often ensue from such comparisons. Neighborhood team policing also reportedly increases the percentage of crimes that people report to the police.

Perhaps the best means available for improving the crime rate measure is the victimization survey. This method is independent of the official reporting procedure. It involves a survey of a sample population of citizens who provide information on victimization. Using valid sampling procedures, one can statistically determine the victimization rate for a larger population. The method is currently being used in a number of LEAA experimental programs; however, it is probable that more research is needed on this method if it is to be a cost-effective means of determining the effectiveness of specialized patrol strategies. More specifically, one needs to test the hypothesis that telephone interviews can provide satisfactory valid information on patrol effectiveness since the cost of the more commonly used house-to-house survey is prohibitive for many police departments.

Arrest rates, another commonly used criterion of patrol effectiveness, are also beset with problems. There are various methods for deriving arrest rates. The one used most often to measure police effectiveness is the ratio of arrests to reported offenses. In any form, however, this rate is likely to be unreliable. It is subject to manipulation by police, especially when they feel compelled to react to certain political pressures. Further, the rate generally tells nothing about the quality of an arrest. Changes in arrest rates may indeed signify effectiveness; however, such changes need to be checked against changes in crime rates gathered from victimization surveys or studies relating these changes to the number of police allocated to the crime problem under study. It would be useful also if such data were analyzed with regard to the "value" of particular crimes, that is, with some measure or scoring system that would review petit offenses separately from the more serious offenses. The National Commission on Productivity in 1973 recommended another means of improving arrest rate measures, that is, considering only the number of arrests surviving the first judicial screening. The problem with this measure is that police departments seldom receive the information needed to track defendants through the adjudication process.

The third most commonly used criterion to measure police effectiveness is the clearance rate (i.e., the ratio of crimes solved by type to the total number of reported crimes). This measure supposedly shows how well the police are performing on the crimes that come to their attention. Clearance rates may prove unsatisfactory measures for a number of reasons. One, they are severely affected by the total number of crimes which, in turn, may be more reflective of societal problems than of police effectiveness. Secondly, one arrest can "clear" several crimes depending upon the way the officer records the charges. Thirdly, clearance rates are influenced by parts of the criminal justice system outside the police department (e.g., by ways in which prosecutors take confessions in the plea bargaining process). And finally, clearance rates are related to the number of crimes and not to the number of offenders. To obtain a more reliable measure, it has been suggested that clearance rates be based on the percentage of known offenders in the population who are apprehended.

In addition to increasing the reliability and validity of such commonly used measures as arrest rates, crime rates and clearance rates, more attention needs to be given to improving other methods of assessing police effectiveness, such as the previously mentioned victimization surveys; the Crime Seriousness Index, which permits a weighting of different types of crimes and is based on harm done to

victims rather than legal definitions; hazard formulas which permit combining of many variables relevant to the effectiveness of police allocations; geographic equality measures that permit an assessment of resource distribution among or between neighborhoods; and productivity.

Given the soaring costs of public services, including police services, measurement of productivity appears especially crucial. Such information is likely to be needed more and more by police departments as they begin to be held increasingly accountable for their expenditures of public funds. In measuring police productivity, the National Commission on Productivity in 1973 recommended a five-stage approach: 1) establishment of goals and objectives, 2) systematic assessment of progress, 3) search for improved operating methods, 4) experimentation, and 5) implementation. This Commission also recommended that formulas for assessing productivity be based on a series of expressions such as:

- 1)
$$\frac{\text{No. of Felony Arrests}}{\text{Patrol Man Years}} = \text{Productivity}$$
- 2)
$$\frac{\text{Level of Citizen Satisfaction}}{\text{Patrol Man Years}} = \text{Productivity}$$

Such expressions can be arrayed so as to give the police administrator a truer picture of the patrol unit's impact on each of the agency's goals. However, these measures do suffer from all the difficulties previously noted with regard to the accuracy of crime rates and other data.

One way of assessing the impact of a specialized unit to attain useful productivity information would be to compare its productivity in certain areas with the productivity of traditional patrol forces. For example:

$$\frac{\begin{array}{l} \text{No. of Specialized Patrol} \\ \text{Felony Arrests Surviving} \\ \text{the First} \\ \text{Judicial Screening} \end{array}}{\text{Total Specialized Patrol} \\ \text{Man Years}}$$

compared to

$$\frac{\begin{array}{l} \text{No. of Traditional Patrol Felony} \\ \text{Arrests Surviving the First} \\ \text{Judicial Screening} \end{array}}{\text{Total Traditional Patrol} \\ \text{Man Years}}$$

A series of such comparisons using several different measures of effectiveness and/or efficiency would permit police administrators to make informed decisions as to the cost-effectiveness of a particular specialized unit.

A system analysis approach offers promise as an effective means of evaluating specialized patrol operations. Such an approach could be based on four main steps of evaluation planning: (1) define project and department goals (e.g., apprehension of criminals; citizens should feel safe on the streets); (2) define objectives (e.g., arrest all persons committing crimes brought to the attention of police; reduce citizen fear of crime), (3) develop measures of effectiveness (e.g., arrest rate; rate of citizen fear of crime determined by survey), and (4) design the evaluation (e.g., selection

of locations for test; determination of hypotheses; selection of statistical methods; determination of data collection procedures).

Two major approaches can be found in the literature for analyzing specialized patrol operations. One relies on measures of effectiveness comparisons of operations within selected beats or precincts (a) between the year or years before using the technique and the time period when the technique is applied, (b) between successive years of applying the technique and/or (c) between the specialized unit and regular police units. The second approach uses different beats, precincts or districts in the testing. Usually, one or more is used as a "control" where the patrol technique tested is not applied. Other matched areas are used for assessing different applications of the technique. Measures of effectiveness are compared in test and control sites. A study of the New York City Anti-Crime Patrol illustrates the use of the first approach whereas an evaluation of the Kansas City Preventive Patrol Experiment exemplifies the second approach (see Chapter V for details of these studies).

Although the evaluations of the New York and Kansas City patrols provide useful information, both of these studies were very expensive. Such a large expenditure is not always necessary for gathering useful information on specialized patrol. An extreme example is a pilot study conducted in England on specialized patrol which utilized a

study design involving a control and experimental area and the collection of statistics before, during and after the experiment. Through careful design and data collection over a short term duration, this study provided a great deal of information on the operational, administrative and recording aspects of the specialized patrol for a relatively small cost.

Like other studies, the experiment in England raises some questions regarding the validity of the findings, especially because of its small sample size and its short duration. However, the fact that information on specialized patrol can be gained at little cost is important.

I. INTRODUCTION

This report is concerned with specialized patrol, that is, that crime-oriented set of activities that relies on the tactics of plainclothes, mechanical devices, special uniformed police and other nontraditional police patrol methods to combat crime.

The report is based primarily on a thorough review of relevant literature by the Institute for Human Resources Research (IHRR) but also contains some results of an IHRR survey designed to collect information on the uses of specialized patrol. The effort is part of the National Evaluation Program of the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration (LEAA), which is designed to coordinate information gathered on particular ideas for reducing crime and particular approaches for improving the criminal justice system to determine which ideas and approaches are successful under a variety of conditions, organizations and management structures. This, and subsequent reports by IHRR, hopefully will add to the overall national effort by providing useful information on one aspect of the law enforcement system--specialized patrol.

In this chapter, we will discuss some overall issues related to specialized patrol operations. Subsequent chapters

will deal with our methods of data collection and review (Chapter II), organization and specialization in police departments (Chapter III), the impact of specialized patrol on the community (Chapter IV), and the evaluation of specialized patrol activities (Chapter V).

A. Historical Perspective

Police control is deeply rooted in our Anglo-American culture. It provides a means for government to meet its responsibilities for maintaining order and protecting its citizens.¹ One of the twelve principles of law enforcement issued by Sir Robert Peel in reorganizing the British Police in 1860 was that "the absence of crime would best prove the efficiency of the police."² This statement reflects a common current concept of police efficiency in our own nation.

1. The Concept of Patrol: Types and Uses. Although the goals of police agencies may vary to some extent among agencies and jurisdictions, all agencies share the goals of crime deterrence and criminal apprehension.^{3,4,5} Patrol has generally been acknowledged as a critical function in every police operation, as noted by O. W. Wilson:⁶

Patrol is an indispensable service that plays a leading role in the accomplishment of the police purpose. It is the only form of police service that directly attempts to eliminate opportunity for misconduct...Insofar as patrol fails to eliminate desire and belief in opportunity, misconduct results. Patrol is then immediately available to investigate offenses, apprehend offenders, and recover stolen property...In addition to performing duties relating to incidents of misconduct, the complete coverage provided by patrol makes it available for other services.

By 1964 a number of police departments in the United States had established uniformed tactical units to complement the activities of traditional preventive patrol units, to combat crime and to perform various special operations. Table I-1, taken from the work of V. A. Leonard⁷, shows the personnel strength of these tactical units in a number of police departments across the nation in 1964.

These specialized patrol units appeared, in general, to be more mobile, better equipped and better trained than the regular patrol forces. However, the lack of identifiable research on this subject suggests that these units may have been implemented without any clear idea of their ultimate effectiveness.

Over the years, the use of specialized patrol has increased. The current reliance on specialized patrols no doubt received some impetus in 1973 when the National Advisory Commission on Criminal Justice Standards and Goals advised police departments in major cities to establish tactical units. The Commission felt that these tactical units would permit flexible and rapid deployment against special crime problems and urged that they be implemented on the basis of current crime patterns and projected criminal activity.⁸

Preliminary results of an IHRR survey indicate that most police departments in cities of 50,000 or more persons do use one form or another of specialized patrol.⁹ This survey

TABLE I-1

POLICE DEPARTMENTS EMPLOYING THE TACTICAL UNIT
IN SPECIAL OPERATIONS: 1964

Department	Population of City Served	Personnel Strength of Department	Personnel Strength of Tactical Unit
Oak Park, Michigan	36,000	64	11
Pontiac, Michigan	85,000	112	6
Tampa, Florida	192,000	411	17
Richmond, Virginia	230,000	413	10-20
Portland, Oregon	373,000	646	41
Dallas, Texas	434,000	1,095	29
Ft. Worth, Texas	278,000	585	20-40
Miami, Florida	275,000	613	30
Memphis, Tennessee	396,000	691	22
New Orleans, Louisiana	570,000	994	50
St. Louis, Missouri	857,000	1,844	113
San Francisco, California	725,000	1,742	Variable
Seattle, Washington	557,000	564	23
New York City, New York	7,800,000	24,550	248
Los Angeles, California	1,900,000	4,738	81
Chicago, Illinois	3,600,000	10,317	650
Philadelphia, Pennsylvania	2,071,000	4,670	150
Los Angeles County Sheriff's Department (county)	3,000,000	3,218	41

includes not only the police departments in cities of over 50,000 population but also coverage of a random sample of smaller cities, sheriffs, state police and county police. Out of 700 mailings of the IHRR questionnaire, we have received, to date, responses from 194 jurisdictions. Telephone call-backs to 54 randomly selected non-respondents were made to determine if departments that did not respond via mail were different from those that did respond. Table I-2 shows preliminary results from our survey; more complete results will appear in subsequent volumes after completion of the survey. It can be noted that a greater percentage of the mail respondents, as compared to non-mail respondents, utilized specialized tactics.

In order to direct the study of specialized patrol toward what seemed the most used types, we selected for study the three most frequently cited in our survey. These tactics are also those most frequently cited in the literature:

- . uniformed tactical squads
- . civilian dress units
- . mechanical

In the literature, these tactics are employed in several operational configurations as shown in Figure I-3.

In the above matrix, each tactic or combination of tactics actually may be associated with any of the operational uses shown in the figure. The sections below provide a brief overview of each of the three tactics and the uses of each tactic.

TABLE I-2
UNIVERSE OF SPECIALIZED PATROL

Tactic	Percent of Respondents Using the Tactic	Percent of Nonrespondents Using the Tactic
Civilian Dress	76%	32%
Uniformed Tactical	58%	33%
Mechanical Devices	47%	4%
Canine	31%	9%
Bicycle	18%	2%

FIGURE I-1
OPERATIONAL USES OF THREE SPECIALIZED PATROL TACTICS

Tactic	Operational Uses		
	Crime Oriented	Suspect Oriented	Location Oriented
Civilian Dress	X	X	X
Uniformed Tactical	X	X	X
Mechanical Devices	X	X	X

a. Tactics

i. Civilian dress units. The basic definition of a civilian dress unit is implied in its name. It is a unit whose members wear civilian clothes rather than police uniforms. The tactic is generally employed on the assumption that it will achieve increased criminal arrests which, in turn, will lower crime rates. Civilian dress units may employ a number of tactics. For example, they may use decoys who passively attempt to get a suspected or known criminal to commit an illegal act so that an arrest may be made. Stakeouts are another common tactic. In this context, the civilian units act in response to an intelligence component which provides information on the location and possible techniques of anticipated criminal activity.¹⁰ Having adopted a stance of flexibility, civilian dress units are in the position of being able to employ many different techniques to accomplish their objectives.

ii. Uniformed tactical patrol. A uniformed tactical patrol is used to deploy uniformed police to complement the work of a traditional preventive patrol unit.¹¹ Most often, these units are deployed in vehicles; however, like the civilian dress units, the uniformed tactical unit can utilize many different tactics. Their purpose is to cope with critical situations in order to permit a saturation or large concentration of police power at a particular place and time to meet a specific problem.¹² To achieve their objectives, these units often are assigned the most competent officers of the patrol force.^{13,14}

iii. Mechanical devices. The most unique feature of a mechanical devices unit is signified by its name; it relies on special mechanical equipment to accomplish its crime related objectives. For example, a mechanical patrol may use remote alarms as an aid in stakeout operations. Another typical tactic is the use of night vision devices in an activity with suspect oriented objective.

b. Operational uses of tactics

i. Crime specific uses. Crime oriented specialized patrol activities are designed to impact on specific crimes or types of crimes. For example, they may employ any one specialized tactic or a combination of tactics to reduce burglaries, assaults, and homicides.

ii. Suspect oriented uses. This form of patrol is aimed at apprehension, that is, the arrest of a criminal. It may involve specific known individuals or general groups of likely offenders. Suspect specific activities depend upon computerized or manual intelligence data systems to provide information on the habits and locations of suspected or known offenders. Activities involving groups might be as innocuous as apprehending truants as a means of reducing residential burglaries.

iii. Location oriented uses. These activities are targeted upon specific locations or general areas which are considered likely to become centers of criminal activity. Location oriented deployment can be used in conjunction with any or all of the specialized patrol tactics.

2. Effects of Specialized Patrol on Crime. As will be noted in other chapters of this report, the literature contains many references to the effectiveness of specialized patrol operations. Old clothes units, uniformed tactical units, suspect oriented patrols and other specialized tactics are all alleged to be effective in accomplishing such objectives as:

- . Reducing crime
- . Increasing felony arrests
- . Increasing conviction rates
- . Increasing cost effectiveness

However, as will be noted in Chapter V, any evaluation of specialized patrol strategies becomes complicated when these objectives are used as criteria measurements of effectiveness. For example, many specialized patrol units are deployed on the basis of crime statistics.¹⁵ These crime rates reflect reported and not actual crimes and are therefore an inexact measure of crime. Similarly, arrest rates and conviction rates are measures contaminated by a number of factors. Cost-effectiveness, per se, is also difficult to determine. As we will note in Chapter V, there are methods for improving the quality of these measures. Nevertheless, a true picture of the impact and effect of specialized patrol tactics is difficult to determine, given the inadequacies of research methodologies applied to date.

The framework shown in Table I-3 presents an initial "snapshot" of the available information as to the effects of the three types of specialized patrol units discussed above on major criminal activities.

TABLE I-3

SPECIFIC EFFECT ON CRIME OF SPECIALIZED PATROL
OPERATIONS AS PORTRAYED IN THE LITERATURE

Crime	Civilian Dress	Uniformed Tactical	Mechanical
Street Robberies & Larcenies from the Person	There are a number of recommendations for this approach in the literature. Evaluations indicate it may have an effect on crime and arrest rates.	There are indications that increased uniformed patrol will affect the crime rate. Displacement, however, remains a problem.	Unknown
Commercial Robberies	Unknown	See Above	Results on use of alarm system are contradictory. Preliminary indications are that they may be effective depending upon the deployment characteristics.
Commercial Burglaries	Unknown	See Above	See Above
Residential Burglaries	Unknown	See Above	Unknown
Rape	Unknown	See Above	Unknown
Auto Theft	Unknown	See Above	Unknown
Aggravated Assault	Unknown	See Above	Unknown
Homicides	Unknown	See Above	Unknown

Based on the data shown in Table I-3, IHRR concludes:

- . There is an insufficient number of published evaluations of specialized patrol projects. Thus, there is a lack of information on successful or unsuccessful methods to assist police departments in decisionmaking.
- . The quality of available evaluations is often unacceptable to the research community.

Despite these deficiencies in the literature, there is much useful and interesting information on specialized patrol activities and methods for evaluating these activities. We will discuss much of this literature after presenting our methods of data collection and review.

FOOTNOTES

1. A.C. Germann, Frank D. Day, and Robert R.J. Gallotti, Introduction to Law Enforcement and Criminal Justice, (Springfield, Illinois: Charles C. Thomas, 1970), pp. 45.
2. Ibid, pp. 54-55.
3. George D. Eastman, Municipal Police Administration (6th ed., Washington, D.C.: International City Management Association, 1969).
4. National Advisory Commission on Criminal Justice Standards and Goals, Police (Washington, D.C.: U.S. Government Printing Office, 1971).
5. The American Bar Association Project Standards for Criminal Justice, The Urban Police Foundation (New York: The American Bar Association, 1969).
6. O.W. Wilson and Roy C. McLaren, Police Administration (New York, N.Y.: McGraw-Hill, 1972), pp. 320-321.
7. V.A. Leonard, Police Organization and Management (New York: Foundation Press, 1967), p. 269.
8. National Advisory Commission on Criminal Justice Standards and Goals, op.cit., p. 10.
9. The Institute for Human Resources Research has mailed a questionnaire focused on specialized patrol to the Chief of Police in all U.S. cities with a population of 50,000 or more. The survey forms are still being returned; however, preliminary results indicate that most cities of 100,000 or more persons do use some form of specialized patrol. A sample of smaller cities was also surveyed.
10. Abt Associates, Inc., Exemplary Project Validation Report: New York City Anti-Crime Patrol (New York: Abt Associates, Inc., 1974) pp. 1-10.
11. National Advisory Commission on Criminal Justice Standards and Goals, op.cit., p. 238.
12. V.A. Leonard, op.cit.

13. W. Wilson and Roy C. McLaren, op.cit., p. 436.

14. George D. Eastman, "The Flexible Unit, A Unique Striking Force," Police Patrol Readings ed. by Samuel G. Chapman, (Springfield, Ill.: Charles C. Thomas, Inc.), p. 354.

15. Examples of specialized units deployed on the basis of crime statistics appear in the following publications: New York City Police Department, Street Crime Unit, Operational Policies and Tactics (New York: Police Department, November 1974).; Captain A.A. Harris, Standard Operating Procedures (Atlanta, Georgia: Bureau of Police Services).; City of Miami Governor's Council on Criminal Justice, Quarterly Progress Report: S.T.O.P. Robbery Project (Miami, Florida: Governor's Council, February 20, 1975).

II. DATA COLLECTION AND REVIEW

The contents of this report are based largely on a comprehensive review of the literature on specialized patrol and some brief but supplementary material gathered through a partially completed IHRR survey. We will discuss in this chapter the methods used to obtain and review the literature; the survey methodology and results will be described in a subsequent report.

A. Sources of Information

The literature search included an examination of both published and unpublished books, foreign and domestic reports, academic papers, formal and informal evaluations, articles and abstracts.

Major sources of information were those located within the Law Enforcement Assistance Administration, specifically the Grants Management Information System and the National Criminal Justice Reference Service.

Approximately 7,400 grant abstracts from the Grants Management Information System were reviewed and documents relevant to the following fields retrieved for further examination:

- . Police Patrol--automobile, canine, foot, helicopter, horse, metro squad, plainclothes, saturation, tactical mobile units, vertical, and vertical take-off and landing

- . Police Special Operations--burglary/larceny, crime prevention, metro enforcement, surveillance, narcotics, and riot control

Another approximately 250 grant abstracts from the National Criminal Justice Reference Service were similarly considered.

Numerous documents were obtained directly from State Planning Agencies and police departments across the country. Information on patrol project evaluations was provided by the State Planning Agencies after request by joint letter from IHRR and three other LEAA grantees. Phone calls and site visits by IHRR personnel to State Planning Agencies and police departments aided in the collection of data.

The libraries of several organizations served as major sources of information. These included the libraries of the International Association of Chiefs of Police, American University and various private contractors. The Congressional Quarterly also proved invaluable.

Additional organizations which provided IHRR with publications and abstracts on publications are as follows:

- . The National Technical Information Service (Cameron Station)
- . The National Institute for Mental Health
- . The American Enterprise Institute for Public Policy
- . The American Bar Association
- . The Chamber of Commerce of the United States
- . The Government Printing Office
- . The Urban Institute

- . The National Council on Crime and Delinquency
- . The International City Management Association
- . Georgetown University Library
- . The Library of Congress
- . The Department of Health, Education, and Welfare
- . The Federal Bureau of Investigation

B. Characteristics of the Literature

The following categories describe the literature reviewed by IHRR staff:

- . Research and Experimental Design--Documents on research methodology, social research design, and police patrol experiment design. These documents took a general, theoretical approach and were not project or program specific.
- . Theses and Unpublished Papers--Masters theses, doctoral dissertations and unpublished papers delivered at a number of seminars/conventions.
- . Foreign Documents--Projects, programs and specialized patrol experiences in other countries.
- . Policy Research--Research and evaluation documents containing the results of practical research in administrative and policy areas indirectly related to specialized patrol operations. Such subject matter as corruption, productivity and organizational consequences of specialization are contained in this section.
- . Law Enforcement Instruction--"Text book type" documents on police administration, as well as the various collections of "readings" on police administration and patrol.
- . Handbook, Standards and Goals--Documents establishing standards for law enforcement agencies and handbooks on administration and supervision.

- . Sociological--Literature dealing with the sociological characteristics of the police subculture as well as that dealing with police impact on and interaction with the community.
- . Magazines, Journals and Newspapers--Articles concerning specialized patrol operations in general or specific incidents involving specialized patrol units or personnel.
- . Reference Documents--Statistical compilations, police departments' annual reports and annotated bibliographies.
- . Project Evaluations--Program or project specific evaluations. Included are evaluations of all types of police patrol strategies.

Table II-1 shows the number of publications in each of the above categories published over the past 20 years. The totals shown in each column for each year indicate, in general, an increased emphasis on the subject matter relevant to specialized patrol over the years. However, from such a review, one can make the general statement that information on specialized patrol, per se, is not very abundant and that much of what does exist remains to be validated. As can be seen in Table II-1, specialized patrol project evaluations number only 81, or about 13 percent of all the literature sources reviewed. However, additional project evaluations are being identified. Further, these evaluation results are often difficult to obtain and are sometimes of such poor quality that they may mislead local government and police administrators who rely upon them to make important decisions.

TABLE II-1
CHARACTERISTICS OF AVAILABLE LITERATURE

REFERENCE CATEGORY	YEAR OF PUBLICATION																					OVER 20	TOTAL	
	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955			
RESEARCH AND EXPERIMENTAL DESIGN	1	6	11	14	8	7	5	12	12	10	3	6	2	1					1	1			2	102
THESES AND UNPUBLISHED PAPERS	1							1	3	1	1													7
FOREIGN DOCUMENTS						1		3	4	3	2													13
POLICY RESEARCH		13	5	8	5	1	2	7	4			1												46
LAW ENFORCEMENT INSTRUCTION	1	4	18	3	5	14	5	3	9	1	1	4			3	5	2	1	2				9	90
HANDBOOK AND STANDARDS AND GOALS		3	9	5	3	2	2	2	2	1		2												31
SOCIOLOGICAL	1	2	6	5	7	7	12	6	8	7	6	3	2			2							2	76
MAGAZINES, JOURNALS AND NEWSPAPERS	1	13	11	21	6	9	7	5	9	6	3	2	3	1		1	1	1					2	102
REFERENCE DOCUMENTS	1	12	8	1	2	1	6	9	9														1	50
PROJECT EVALUATIONS	11	21	7	8	5	6	4	10	4		4												1	81
TOTAL	17	74	75	65	41	48	43	58	64	29	20	18	7	2	3	8	3	3	3				17	598

Many specialized units and individual police departments, in fact, have only recently begun to include project evaluations in their decision-making process.

C. The Review and Analysis Process

In conducting the literature review and survey, IHRR has relied considerably upon staff who are familiar through work and educational experience with police operations. These staff members were guided, where relevant, by IHRR senior staff whose major experience and training has been research and evaluation, per se.

As a first step, all staff members delineated relevant issues and categories of concern that should be reviewed and analyzed. Many of these issues and topics can be ascertained by reviewing the Table of Contents. The issues and topics were then assigned to staff on the basis of their past training and experience.

It should be emphasized that data collection is still under way and we anticipate finding new documents, especially in the "Evaluation" category. This additional information will be integrated into the final report.

III. ORGANIZATIONAL CONSEQUENCES OF SPECIALIZATION

Police departments are publicly-funded organizations assigned specific responsibilities: the maintenance of order and the protection of citizens. Specialized patrols represent divisions within this organization which are designated specific police tasks. The consequences of such specialization are not clearly understood but appear to be quite complex. These consequences are the major subject of this chapter.

Before discussing the consequences of specialization in detail, it seems useful to review briefly some general theory regarding organizations in general and specialization within organizations in particular.

A. Organization and Specialization: General Theory

There is, as yet, no general agreement among theorists on the definition of an organization. Some theorists - particularly those with a behavioral sciences perspective - view organization simply as human relationships within a group setting. In this context, the organization encompasses all formal and informal relationships which influence the behavior of employees both within and outside of the organizational structure.¹ Others view organization as systematized activity, that is, as an organized undertaking designed to accomplish specific goals.²

Most theorists do agree that an organization involves the establishment of authority relationships and that it provides for coordination and communication between members, vertically as well as horizontally.³ Further, an ideal organizational structure is one that allows people to perform efficiently and to optimize their individual satisfaction in attaining goals.

Wight Bakke, after extensive analysis, formulated the following definition of organization which incorporates several divergent points of view:⁴

...organization is a continuing system of differentiated and coordinated human activities utilizing, transforming, and welding together a specific set of human, material, capital, ideational, and natural resources into a unique problem-solving whole engaged in satisfying particular human needs in interaction with other systems of human activity and resources in its environment.

Bakke's definition seems to encompass the organizational goals and ideals of many police departments. It also points to a characteristic common to most departments: differentiation of activities.

In its broadest sense, differentiation or specialization has been defined as a primary step in organization, one that involves the determination and establishment of "the smallest number of dissimilar functions into which the work of an agency may be divided."⁵ Henri Foyal, a prominent management specialist, has further refined the principle of specialization by stating that it is the

"division of work to produce more and better work with the same effort."⁶ Simply stated, specialization is the grouping of similar tasks or functions to achieve organizational objectives efficiently.

In noting that the concepts of organization and specialization are congruous with the thinking of police administrators, O.W. Wilson and R.C. McLaren believe that it is useful and necessary to distinguish between organizational structure and the principles of administrative organization. They note, however, that there is a necessary interrelationship between the two:⁷

An agency can operate adequately...with a deficient structure, but an agency with a seemingly good structure can very seldom operate with efficiency if a basic principle of administrative organization - such as the need to communicate through channels [or the need to specialize a particular activity] - is consistently ignored.

Following this definition, it is apparent that specialization can be incorporated into the framework of an organization as a principle of administrative organization and that it can promote efficiency if specialization is needed. Unnecessary specialization, on the other hand, may undermine efficiency.

Necessity, then, is one key to understanding the complex issues related to specialization. Another issue which bears a close examination is that of command and control - a principle of administrative organization which has a direct impact on specialization. These and other issues will be subjects for further discussion as we review in greater detail

the literature on organization, specialization and command and control as these relate specifically to police departments and specialized patrol.

B. Organization and Specialization in Police Departments

Police departments, especially those in large cities, are often complex organizations containing many hierarchical functional units. Specialization may appear at many points in the hierarchy, as exemplified by the traffic division or detective division.⁸ There may be, in fact, a grouping of similar tasks or functions on a broad scale with further specialization designated within each grouping.

The patrol division - often the "backbone" of the police department - is usually the largest single functional unit. In large police departments approximately one of every two sworn members serves in the patrol division. Other divisions, such as the communications, detective and records divisions, provide direct support to the patrol division. In small police departments, the patrol division, in effect, may be the department.⁹

In large departments, the patrol division is often a specialization within the department; it is usually decentralized and has its own commander who reports directly to the chief. In small departments, the patrol function may be centralized and headed by the chief of police or deputy chief.

To illustrate differences in the organizational structure of police departments, we reviewed the structure of the

Metropolitan Police Department of the District of Columbia and that of the Tampa Florida Police Department. The differences, as can be seen, are striking.

Figure II-1 shows the organizational structure of the District of Columbia department. At the top of the hierarchy is the Office of the Chief. Directly subordinate to this office are four bureaus. The bureaus, in turn, are subdivided into divisions. Of special interest here is the Field Operations Bureau which is divided into the Patrol Division (the traditional patrol entity), the Traffic Division, the Special Operations Division (the specialized patrol entity) and so on. Districts and other entities (e.g., sections or squads), not shown in Figure III-1, are further subdivisions of the Field Operations Bureau.¹⁰

The Tampa Florida Police Department has an organizational structure quite different from that of the District of Columbia's department, as shown in Figure III-2. Instead of bureaus directly subordinate to the Chief of Police, the Tampa department consists of an administrative official and an operations official who are directly subordinate to the Chief. The operations official heads the Uniform Districts (the traditional patrol entity), the Detective Division and the Tactical Division (the specialized patrol entity). These two major divisions are subdivided into bureaus and shifts.¹¹

Although the organizational structure of the Metropolitan Police Department of the District of Columbia is

FIGURE III-1

ORGANIZATIONAL CHART OF THE METROPOLITAN POLICE DEPARTMENT OF THE DISTRICT OF COLUMBIA

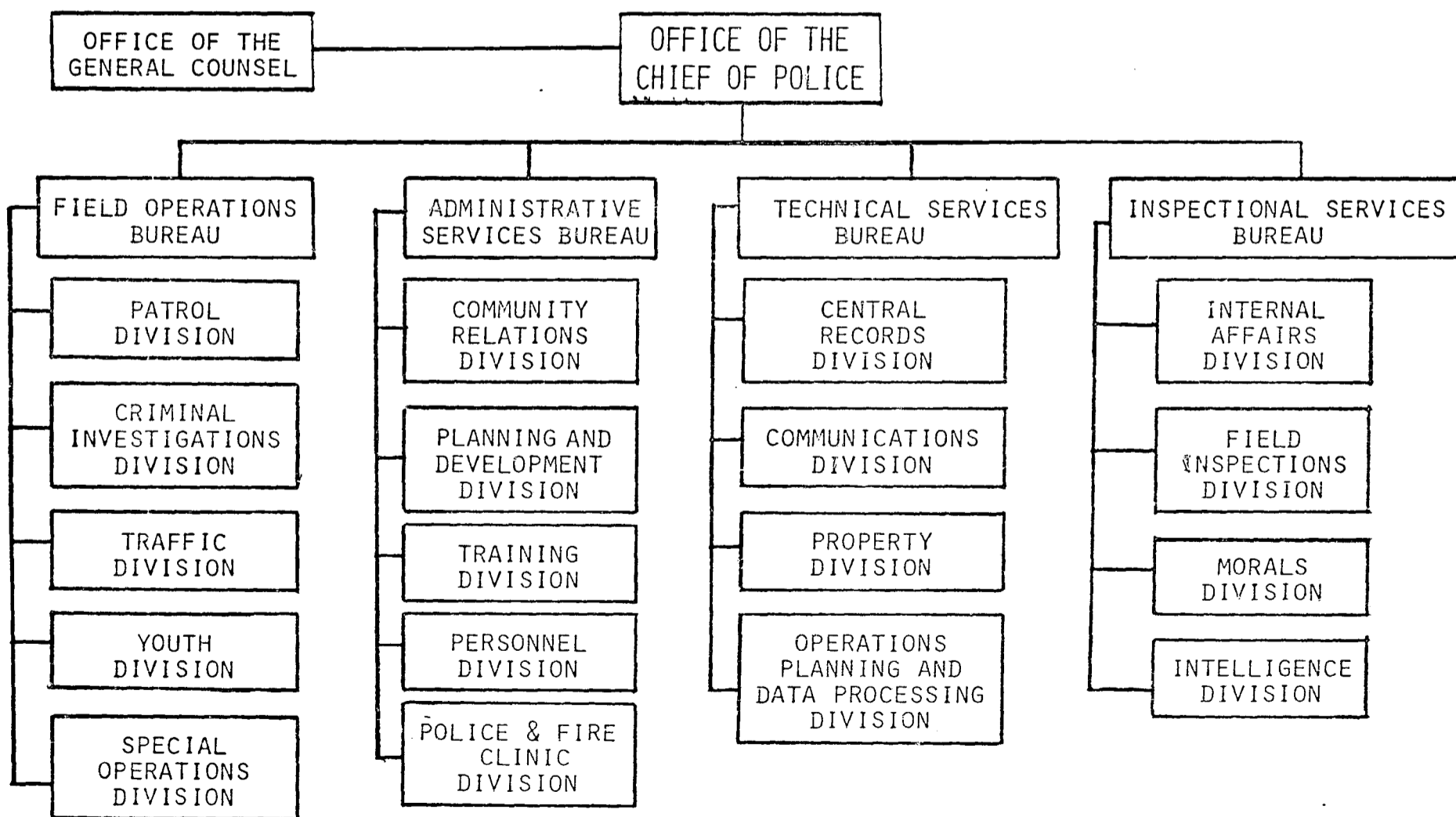
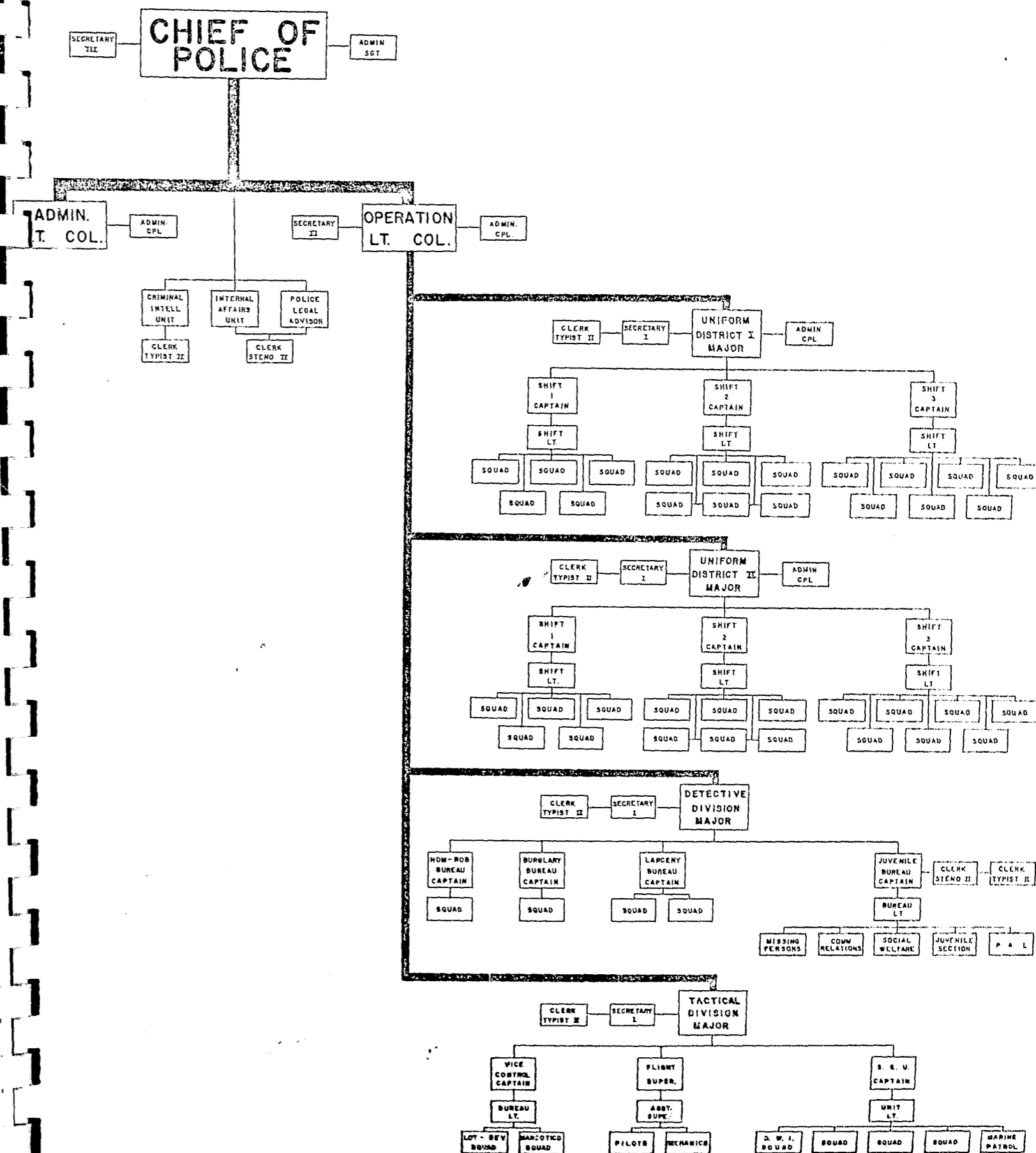


FIGURE III-2

ORGANIZATIONAL CHART OF TAMPA, FLORIDA POLICE DEPARTMENT



CONTINUED

1 OF 3

somewhat typical of the structure of large police departments, investigations of other departments nationwide reveal that there are almost as many organizational structures as there are departments. This is true in large cities such as the District of Columbia and small cities such as Tampa.

C. Specialized Patrol Organizations

The literature indicates that specialized patrol can occupy various levels within a police department's organizational structure. Most commonly, the specialized patrol divisions are separate entities and function autonomously, much as the traditional patrol division or the traffic division. The Special Operations Division of the District of Columbia is one such example (see Figure III-1). In addition to an autonomous specialized division, there may be a specialized unit¹² subordinate to the traditional patrol division. In the District of Columbia, it is within the discretion of the District Commander to implement a specialized patrol unit within his district.

One example of specialized patrols operating on two different levels can be found in the New York City Police Department. Here the Street Crime Unit operates city-wide as part of the Special Operations Division of the department. Precinct Anti-Crime Units, on the other hand, operate in each precinct under the direction of the precinct commander.

In most of the literature reviewed, specialization is discussed on the divisional level; few studies specifically

relate specialization to precinct organization. In lieu of this deficiency in the literature, we can only hypothesize that the same principles of specialization should apply at any level within an organizational structure in which a specialized patrol may operate. We assume the validity of this hypothesis in this further discussion of specialization.

D. Specialization: Advantages and Disadvantages

Given the view of organization and specialization just presented, it seems meaningful to ask: What are the advantages and disadvantages of specialization?

The issue is a complex one. In discussing it, we take the position that specialization should be regarded as neither a desirable nor an undesirable trend in and of itself; rather, the actual circumstances and need in each case should be considered before any judgment is made.¹³ Having stated our position, we will proceed to discuss both the advantages and disadvantages of specialization as they appear in the literature.

1. Advantages of Specialization. In any organization - whether business or government - there appear to be a number of advantages inherent in specialization. The major advantages of specialization in police organizations seem to be that it may result in the following:

- . Placement of responsibility
- . Improved training
- . Promotion of job satisfaction and good morale

- . Stimulation of staff interest
- . Arousal of public interest

We will discuss these advantages briefly in the sections that follow.

a. Placement of responsibility. Through specialization, responsibility for task performance can be placed on a special unit and its commanding officer. Such definite delineation of responsibility enhances accountability. Because duties and responsibilities are usually clearly designated, together with specific objectives, the unit commander can be held directly accountable for the level of efficiency within the unit.

To illustrate this point, we will consider again the New York City's Crime Unit. This Unit operates city-wide and focuses exclusively on muggings and purse snatchings. Control of the Unit rests at the headquarters level, although precinct level commanders can request the Unit's services and are notified whenever the Unit operates in their areas. The precinct has no other contact with the Unit. Deployment of resources is solely determined by personnel within the Unit. The precinct commander cannot be held accountable in any way for the Unit's efficiency. Conversely, the Unit commander is not responsible for local problems which have no relationship to the targeted crimes. Thus, responsibility is clearly delineated, a factor which is crucial to the efficiency of any organization.¹⁴

b. Improved training. Unlike workers in other professions, the police officer receives the major portion of his training on the job. A survey of 269 police departments by the National League of Cities found that 97 percent of the departments surveyed were engaged in formal in-service training.¹⁵ However, a more broadly based survey of 4,000 police departments by the International Association of Chiefs of Police revealed that 85 percent of the officers appointed were assigned to duty prior to being trained.¹⁶ The latter study demonstrates the importance of increasing and improving training.

Training, however, becomes difficult under certain conditions. It has been found that when the technical nature of police functions increase, it is considered impossible to train the average policeman in all the details and applications of his assigned functions. Assigning persons to a specialized field permits a more intensive training than would be feasible for the entire force. Further, such specialization and intensive training promotes study and research by individual members.¹⁷

The extensive formal training of the specialist has also proven economical. Officers assigned to the specialized units may be processed through advanced training more efficiently because of their small number and their narrowed field of interest. Such programs would not be economically feasible for the personnel of the entire police department.¹⁸

In addition, the constant repetition of a task, as occurs in specialization tasks and training, develops a high degree of skill and ability. In this way, specialization facilitates the development of a body of experts.¹⁹

c. Promotion of job satisfaction and good morale.

The morale of police personnel will almost certainly be reflected in the operations of the patrol force. Although morale is difficult to measure, its consequences are not.

When considering morale, certain factors must be known. These include the officer's role in the community; how he perceives himself and his supervisors; how he perceives the community; and how he is perceived by the community. Good morale means that the officer must have pride in himself, his department and in his police work. By obtaining such information, a department can make some conclusions about the morale of its personnel.²⁰

Morale is not unrelated to specialization. A small group which is given responsibility for performing a specific task tends to form a cohesive unit: this generates high morale and pride in the group's accomplishments. It appears that whenever members of a unit are selected on the basis of special ability and become highly skilled through training, repetition of tasks and attention to a restricted field, they invariably develop enthusiasm and job satisfaction is thereby enhanced.²¹

d. Stimulation of staff interest. Because of their sense of felt responsibility and pride in their unit, specialized personnel may develop a proprietary interest in those

departmental operations which relate to their field. This, in turn, may cause them to participate actively in departmental operations and to press for authority, personnel and matériel to meet their needs. The demand by special units for adequate resources is desirable so long as they do not receive a disproportionate allocation of the department's resources.²²

e. Arousal of public interest. It has been noted repeatedly that the police and the public must work collectively to achieve an orderly society. This requires patience, understanding and self-restraint. Ways must be found to change conceptions of the role of the police in the community. A better understanding is needed of the fact that police are actually performing social agency activities. Implicit in these statements is a recognition that changing social needs require a wider concept of police work among the public.²³

Specialized units do have a tendency to arouse and organize public interest. For example, an old clothes unit which has been successful in reducing crime through decoy patrol, may receive considerable coverage in the news media and thereby arouse public interest. When the interest is positive in nature, public support of police activities generally follows. Such public support is desirable. It aids in securing necessary funds for improving the police department and this, in turn, can lead to increased understanding and enhanced interrelationships between the police and the community.²⁴

2. Disadvantages of Specialization. Although specialization is common to many police departments, and is obviously necessary for the reasons outlined previously, it is still a subject of considerable controversy. When specialization occurs in excess or is implemented unnecessarily, it may seriously injure departmental operations. Specialization, in fact, may create a number of problems under certain conditions, according to a number of writers. The major problems and/or outcomes are:²⁵

- . Creation of coordination problems between specialists and nonspecialists
- . Adverse effects on morale and job satisfaction
- . Tendency toward empire building
- . Complication of tasks of command
- . Arousal of negative public reaction
- . Hampering of executive development
- . Unnecessary imitation - specialization by small departments
- . Diminishing of territorial coverage

These disadvantages will be discussed briefly below.

a. Creation of coordination problems between specialists and nonspecialists. Specialization may lead personnel who are not members of the specialized unit to develop the attitude that they have no responsibility in the area in which specialized units operate. Specialization also

may hamper the nonspecialist's ability to carry out responsibilities in a specialist's area. When these outcomes occur, coordination problems may develop.²⁶

For example, when there is a stake-out of a particular area by civilian dress and unmarked patrol car units, traditional uniformed patrol units may be instructed not to enter the area lest they jeopardize the specialized unit's activities. During the stake-out, the performance of traditional patrol responsibilities are thereby restricted in the area. Under such circumstances, the traditional patrol officer may become reluctant to make arrests for crimes which have been targeted for specialized units.

As the police department becomes more specialized, many police matters can no longer be directly and promptly disposed of by the patrol officer immediately concerned, but must be referred to a specialist for decisions and action. Responsibility, thus, is divided between the patrol officer and the specialist. Further, specialization frequently offers both the specialist and nonspecialist an excuse for not undertaking a task that may involve some degree of inconvenience.²⁷

b. Adverse effects on morale and job satisfaction.

While some experts believe that specialization increases police morale, many sources point to an opposite conclusion. Among the latter, specialization is seen as especially detrimental to the morale of the traditional patrol officer. Job satisfaction appears to be an especially vulnerable area.

Although the specialist may derive job satisfaction from the performance of his specialized task, the traditional patrol officer who works with the specialist may never complete or know the results of the cases he initiates. Under these circumstances, the traditional patrolman may fail to experience job satisfaction.²⁸

On the other hand, it can be argued that the specialist does not derive any more job satisfaction from his performance of a specialized task than the traditional patrolman who has no such task. This would most likely occur when the specialized task is only a portion of a particular case which is completed by someone other than the specialist.

Another morale effect of specialization concerns the traditional patrolman's status. The status of the traditional uniformed patrolman has slowly declined in America. While this seems to be the result of many different circumstances, including the special attention given the specialists by the various media, it has come about partially because the police administration has increasingly emphasized specialization. If one accepts the theory that police work should be considered a patrol service, with specialized activities playing a supportive role, then the traditional patrol force becomes the focal point of the organization around which special units are grouped. There are experts who claim that the patrol force should not be subordinated to other units. They consider a department organized otherwise as being poorly conceived

because it cannot provide the well-rounded program essential to attaining overall police objectives.²⁹

As mentioned previously, experts further contend that the patrol force is the "backbone" of the police department; they theorize that any effort made to improve or strengthen the other divisions at the expense of the patrol division will result in the weakening of services rendered by this division. As a consequence, the specialized units' burden would be increased considerably. Judging from the aforementioned principles, the high status granted the specialist but denied the traditional patrol officer is often an unwarranted position.

Consider the following case and its implications for status and morale: A new police recruit, after undergoing strenuous tests and examinations, finally is given the opportunity to wear the police uniform as a patrolman. He wears the uniform with pride until he is selected to become a member of a specialized old clothes unit which engages in decoy patrol. This unit, however, is discontinued and, since the strength of the patrol division needs bolstering, the recruit is transferred back to the traditional patrol division where he finds himself in the patrolman's uniform. The recruit's peers view this return as a demotion and speculate openly about the "mischief" which caused this "demise." Obviously, with such emphasis on specialization, the traditional patrolman has become the "low man on the totem pole" as far as status is concerned; the result is low morale.³⁰

c. Tendency toward empire building. The influence of the specialist tends to become disproportionate to his responsibility. The specialist exerts great effort to establish his position firmly and to enhance its importance. Specialization tends to breed more specialization. The special unit often demands more personnel, equipment, an independent record systems and so on. The result, as Wilson and McLaren note, "may be a department of generals with no troops left to do the fighting" unless these demands are checked. Further, specialists may form their own organized pressure groups in the community and these groups "may embarrass rather than aid the administration" of the department.³¹

Such empire building within the organization may cause serious problems. This may give rise to competition for staff, facilities, budget and equipment. It may result also in a narrowing of the range of activities and lead to an inefficient use of manpower. As a consequence, members of the police department will no longer be motivated by a common purpose.³²

d. Complication of task of command. Unity of command is often jeopardized by bringing into conflict individuals who are under a common leadership.³³ These problems primarily concern staff supervision and staff service by specialists at the scene of major crimes and catastrophes. Where lines of authority and responsibility cross, friction, conflict, and confusion are the result, thereby complicating the task of command.

As a case in point, consider the following event. A tactical unit arrives on the scene of a major crime ahead of the traditional patrol unit. The tactical unit gathers witnesses and complainants and removes them from the scene to identify suspects. The traditional patrol unit arrives after being assigned the incident by the dispatcher. With no witnesses and complainants at the scene, the traditional patrol finds it is unable to fulfill its responsibilities of protecting evidence, taking a report and so on. (For a further discussion of command and control, see section E below.)

e. Arousal of negative public reaction. As stated earlier, specialized units tend to arouse and organize public interest. Although the results are sometimes favorable, definite negative public reactions may occur also.

For example, strong public hostility and criticism was aroused by the aggressive behavior of one tactical force of highway patrol officers in one community. A ranking officer called the force "a skull cracking division" and stated:³⁴

Whenever there are sensitive situations developing in my district, or if disturbances actually have broken out, I will be better off if the unit does not come into my district and stimulate violent reaction.

Such occurrences are not uncommon, although there is no broad body of literature supporting this conclusion.

f. Hampering of executive development. While specialization may develop expertise in specialized fields, it apparently fails to produce personnel within the police department who may become the most effective leaders. Personnel

who are members of special units may advance to supervisory ranks within that unit and function there fairly well. But, they may tend to lose sight of the overall objectives of the department. As leaders of the specialized unit, they frequently have difficulty in coordinating with other units because they lack experience in other areas of law enforcement performed by the police department. Only those specialists who have been periodically rotated from one specialization to another and have served in most of the department's units can compare in leadership potential with the generalist who has participated in all phases of law enforcement.³⁵

Specialization tends to limit the promotional potential of the individual officer. He can advance only so far within his speciality. It is the personnel of more varied departmental experience who are more likely to be promoted to the overall administrative positions.

g. Unnecessary imitation - specialization by small departments. The advantages inherent in specialization are almost certainly lost whenever small police departments institute special units through imitation rather than necessity. Because large police departments tend to maintain a "big brother" relationship with small ones, and the media tends to glamorize the specialist, smaller departments tend to model themselves after the large ones. Thus when the large police department implements an old clothes unit, a tactical patrol unit, a "S.W.A.T." unit and other specializations, its smaller counterparts, seeking equal status organizationally, are

prone to develop these specialities even though they are not needed and cannot be justified.³⁶

h. Diminishing of territorial coverage. Specialization depletes the resources of a traditional patrol division and this results in a less intensive general patrol. For example, when police services are divided between two officers, on the basis of function, each officer must cover approximately twice the area required for coverage when all services are performed by each. However, if the general patrol is large enough so that specialization consumes only a relatively small amount of general patrol resources, the less-intensive general patrol is of no consequence.³⁷

E. Command and Control

Misdirected or capricious use of authority may be detrimental to an organization. Thus, control must be provided so that those who exercise authority will be held accountable for the consequences of their actions. Luther Gulick, a noted management theorist, defines control as follows:³⁸

Control consists in seeing that everything is carried out in accordance with the plan which has been adopted, the organization which has been set up, and the orders which have been given...control is in a sense the consequence of command in action.

Control has been defined also as the measurement and correction of the performance of subordinates in order to insure the accomplishment of organizational objectives and the plans designed to attain them.³⁹ Control then involves the measurement of performance, the existence of predefined plans, a defined organization and the establishment of objectives and goals.

Command may be separated into two types: line and staff. The former is simple in operation and involves no difficult relationships when channels of control are clearly established and understood. Line command concerns the exercise of the authority delegated by a superior ranking individual to his immediate subordinates and by them to their subordinates down the lines of direct control to the lowest level.⁴⁰

Staff command, on the other hand, is the giving of orders by an agent who has no authority in his own right but performs the routine tasks of command as a service for a principal. The agent may be an aide or assistant (e.g. a dispatcher) who says, in effect, "the chief says that you shall do so and so." Staff command is an appropriate form of command for police organizations because the nature of police work presents problems which are non-existent in other types of organizations.⁴¹ For example, calls for service are frequently received at headquarters and orders issued to field personnel for performance of service by a dispatcher; that is, field personnel usually operate without direct supervision by a superior officer. Instead, they are usually supervised by officers of equal rank. In essence, command and control involve the traditional management function of directing and coordinating resources and activities toward established goals and objectives according to predefined plans.⁴²

Because span of control and unity of command - also basic principles of management - are so closely related to command and control, it would be difficult to discuss the latter

without first defining the former. In police service it is important that only one person be in complete command of each situation and that only one person be in direct command or supervision of each officer. This principle is known as "unity of command." Confusion is created when a subordinate receives orders from more than one superior. In such a circumstance the orders are usually not congruous. Conflicting orders tend to confuse subordinates, making the coordination of their efforts more difficult. The principle of span of control is concerned mainly with the ability of a superior ranking individual to direct, coordinate, and control a certain number of immediate subordinates.⁴³

The proper span of control is determined by conditions that prevail in particular situations, considering such factors as the competence and reliability of subordinates; the complexity of the task to be performed by subordinates; and the ability of the superior to delegate authority. Consequently, an arbitrary number cannot be established as an optimum to be applied in all cases. A broad span of control - many subordinates reporting directly to one superior - increases the task of coordination and command becomes more difficult. On the other hand, by adding additional levels of supervisory personnel, the span of control may be reduced and the chain of command is lengthened. Hence, the superior is relieved of the burden of command and is left with his primary administrative task. A general rule of thumb is that subdivisions at the higher levels of the hierarchy can usually

benefit from a narrower span of control, while units of numbers of personnel at the operational level can be given a broader span.⁴⁴

Again it should be noted that most literature sources researched treat specialization in general on the divisional level rather than applying it to patrol specifically. This also holds true for the principles of command and control; however, the principles are pervasive and may be applied to specialized patrol.

At this juncture, we will discuss the various aspects of command and control applicable to specialized patrol and their impact on the police organization.

1. Unity of Command and Specialization. While specialization may enhance coordination and control in large organizations and, thus, broaden the span of control, it often jeopardizes unity of command by creating conflict among individuals under a common leadership. The conflict is most likely to occur at the district or precinct level when specialization is implemented at the divisional level. This situation seems to be more prevalent in specific operations, such as those involving crimes, fires, and other catastrophes requiring the service of specialists and members from other divisions of the force.

Specialization seems to be most detrimental to unity of command as it increases. Interrelationships then multiply, often to an alarming degree. These interrelationships are areas of potential conflict and friction that greatly increase

the problem of integration. Specialization requires that each special unit be assigned certain responsibilities and that the residual authority be delegated to all other units; it thereby complicates the task of coordination, supervision and control.⁴⁵

When specialization occurs on the district/precinct level, the additional levels of supervisory personnel may lessen the leader's personal participation in police operations, impede the easy and rapid flow of information up and down the channels of control, limit the leader's ability to control operations and increase departmental red tape. Lengthening the chain of command by implementing special units that are subordinate to the districts or precincts is not, therefore, entirely advantageous. Each added level of authority removes the top officials by one more intermediary from actual operations and consequently from the opportunity to personally direct, coordinate and control the operations of the force.⁴⁶

2. The Importance of Selection Criteria and Training Requirements. Two factors that determine the proper span of control are the competence and the reliability of subordinates. Selection criteria and training requirements play an important role in enhancing the competence and reliability of the subordinate. Thus, selection and training have a definite impact on the span of control.

Except in rare instances, personnel placed in specialized activities will require training in the assignment to ensure

a continued high level of competence and performance. Some experts hold that departments should establish in writing the selection criteria and training requirements for each specialized assignment. This might include pre-service as well as in-service training. The type of training and criteria for selection obviously will vary according to the nature of the specialized assignment.⁴⁷

3. Necessity of a Deployment System. Since predefined plans and established organizational objectives and goals are essential elements in proper and efficient command and control, crime analysis is necessary in developing these operational plans for specialized units. By studying past experiences, the analyst can predict future occurrences. Similarly, the police administrator can anticipate the deployment of specialized units and formulate future plans on the basis of the analysis of past data.

The ideal deployment system is responsive to demands for police services and consistent with the effective use of the unit's personnel. It includes collecting and analyzing required data, conducting workload studies and allocating personnel to assignments.

To obtain the ideal deployment data base, police departments should establish a system for collecting and analyzing deployment data based on area and time deployments. A comprehensive workload study to determine the nature and volume of the demand for police service and the time expended on

on all activities performed also should be developed. The workload study in fact, should be the first step in developing a deployment data base. In addition, departments should implement an allocation system to determine the geographical and chronological proportionate need distribution of personnel. The allocation system should emphasize organizational efforts to reduce crime, increase criminal apprehensions, and equalize personnel workload. Inherent in the plan should be procedures for the implementation, operation and periodic evaluation and revision of the deployment system. These procedures should include provisions to insure the active participation and willing cooperation of all personnel.⁴⁸

Although the more traditional police departments in American cities are organized on quasi-military command and control principles, modernized ones display features of centralized technological control systems. The technology of the radio, the telephone and the computer (sometimes with mobile terminals) permits a high degree of central control of specialized operating units in the field. This technology also makes possible direct reporting to a centralized records unit. Such a centralized and direct system of command and control makes it possible to bypass many positions in the hierarchical command structure, particularly from the district/precinct-level specialized units. Those in the line of authority may then assume work supervision or informal adjudicatory rather than strictly command roles.⁴⁹ The system

also lessens the coordination and command problems that result from a broad span of control because the number of interrelationships are decreased. Where specialization is on the district/precinct level, the system can alleviate the common problems of lags in communications that occur under a lengthened chain of command.

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IV. THE IMPACT OF SPECIALIZED PATROL ON THE COMMUNITY

The apprehension of criminals through use of specialized patrol will inevitably interact with the community environment. Actions taken by the police may have unforeseen effects on citizens not directly involved in the crime situation. These effects may lead to either friendly or hostile relations between the police and the community, depending on whether the specialized patrol tactic sufficiently considered its effect on persons living in the area in which the action is to be taken. Persons affected by specialized patrol may be typical citizens, or a minority group with sensitive feelings toward the police, or they may be members of the business community.

A. Community Relations in the Literature

The literature frequently mentions the importance of good community relations to effective police work. Wilson and McLaren in Police Administration¹ devote an entire chapter to the subject. Police are urged to be aware of the feelings of the citizens in their community and to explain through the media and through working with community organizations the need for special tactics (such as specialized patrol). Furthermore, they advise that the police should be open to feedback from citizens as to what actions they perceive the community needing from the police.

The American Bar Association concurs in this belief and sets as a standard:

Police should undertake to keep the community informed of the problems with which they must deal and the complexities that are involved in dealing with them effectively. Police agencies should cooperate with those who seek an understanding of police operations by affording opportunities for interested citizens to acquaint themselves with police operations and by providing access to the accumulation of knowledge and experience that the police possess.

Descriptions of methods for attaining good police-community relations are available^{3,4} but in spite of the emphasis on good community relationships in police administrative guides, little research can be identified as bearing specifically on the impact of specialized patrol on community relations. The news media have, however, reported on extremely adverse citizen reaction to specialized patrol. Such critical comments in the media, while not scientifically valid, can lead to difficulties in funding and in carrying out necessary police duties. Community impact should be considered in planning specialized patrol and should be included in evaluations.

B. Deployment of Specialized Patrols

The following are four of the major U.S. cities with specialized patrol units for which reports are available:

- . New York City Anti-Crime Unit
- . Washington, D.C. Metropolitan Police Special Operations Division

- . Atlanta, Georgia, Bureau of Police Services
Anti-Robbery Unit

- . Miami, Florida, STOP Robbery Program

All of these police departments deploy specialized patrol officers to particular areas on the basis of crime statistics. Consequently most of these specialized patrol units are deployed in the densely populated inner-city neighborhoods with the highest reported incidence of street crimes. Furthermore, unlike traditional patrol, specialized patrol units do not assign officers to a specific patrol area on a permanent basis, but usually for only a short time period. By working in a specific area only for a few days, the specialized patrol officer may not become well-acquainted with neighborhood residents and may acquire a detached attitude about the community, thus inviting negative effects on police-community relations.⁶

C. Personnel Qualifications

The qualifications for personnel employed in specialized patrol units could also be a factor in police-community relations. The selection criteria usually call for young, aggressive officers with good records of arrests. Although the officers must not have a record of substantiated citizen complaints, the fact that they are generally young and have been employed only a short time raises the question as to whether or not their length of service is sufficient for building a record of complaints.

D. Location of Specialized Patrol Units

In conducting site visits to 12 police departments to date, the IHRR staff observed that the specialized patrol units are usually located at a central headquarters, and thus are removed from the areas of frequent patrol.⁷ Unlike traditional patrol and team policing units, the specialized patrol officers are separated from the community which they serve. This placement may be one factor that could lead citizens to develop distrust and adverse feelings toward specialized patrol units.

E. Possible Effects of Specialized Patrol on the Public Community

Currently, anticipated criminal activity has been the primary concern of specialized patrol officers. The objectives of these units are the reduction of crime and the arrests of offenders. The method of deployment, the qualifications of officers, and their location at central headquarters all have an impact on the community.

Any police officer's contact with the public can be a positive or negative experience. For example, a typical uniform tactical unit while performing saturation patrol could simultaneously reduce street crime and also transmit the impression of an occupying force. By routinely stopping and questioning persons on the street or in cars, the unit could be perceived by the community as a symbol of oppression.⁸ However, this same type of saturation patrol might increase another community's sense of well-being. Even though there

might not be an actual reduction in crime, the public could infer by their presence that the police are concerned with their problems.

When police are seen as oppressors, however, even the reduction in crime may be too high a price to pay for the alienation induced in a particular segment of the community. A surveillance stake-out unit on the specific mission of reducing store hold-ups or street robberies may prevent crimes from occurring, but at the same time give onlookers the impression of brutality and prejudice.⁹

F. Three Examples of Community Reaction to Specialized Tactics

1. The Detroit STRESS Unit

In January 1971, the Detroit, Michigan Police Department created a unit called "Stop the Robberies, Enjoy Safe Streets" (STRESS). The STRESS unit was a combination of specialists, including civilian-dressed, surveillance, and decoy officers. From its inception, the officers assigned to the STRESS unit made many arrests for armed robbery both on the streets and in business establishments, but was also involved in conflicts in which numerous officers and alleged offenders were slain.¹⁰

The actions of the STRESS unit began to receive both praise and condemnation from the community. Community resentment heightened when a 57-year-old man was slain in his home by members of the STRESS unit. The STRESS officers were searching for suspects who had allegedly shot four

plainclothes policemen when they stopped his vehicle. The press quoted neighbors as describing the slain man as, "a quiet, easy-going man who never swore, who was a gentleman and who was never involved in any trouble." The press also quoted the police as saying that they, "had acted on reliable information from a known reliable informant." The newspaper account further noted that STRESS had made numerous raids which had failed to find the suspects and it was alleged that police lacked search and arrests warrants in most of these raids.

In 1970, the year prior to STRESS operations, there were 23,038 reported robberies in Detroit. In 1973, the reported robberies had decreased to 16,249. Officers of the unit made 7,932 felony arrests and confiscated 2,286 guns from persons on the street.¹² Although the STRESS unit apparently decreased the number of robberies and was effective statistically, its impact on the community was questionable because of the tactics it employed. Although the police did not publicly admit it, many changes were made because of political pressure from various segments of the community who felt STRESS was operating unfairly against them. STRESS remained a controversial issue until¹³ it was abolished by Mayor Young.

2. The Washington, D.C. Bicycle Planting

This tactic was implemented on a small scale to reduce the number of bicycle thefts in the city in 1972. The

plan was to plant bicycles owned by the Police Department in areas of known thefts and then keep the bicycles under surveillance. A juvenile who attempted to steal one of the bicycles was shot and killed by a police officer. This incident caused an uproar in the community. As a result of the slaying and of community pressure, the Washington Metropolitan Police Department abandoned use of this patrol tactic.^{14,15,16}

3. The New York City Street Crime Unit

The New York City Street Crime Unit uses a combination of specialized patrol tactics in its attempt to reduce street crimes. The officers of this Unit employ civilian dress decoy tactic. The decoy, disguised as a potential victim, is placed in an area identified by crime analysis as having a high rate of a particular crime; a back-up team, also dressed to blend into the area, is deployed nearby.

The activities of this Unit have been highly publicized and the Unit appears to have avoided the problems encountered by STRESS. Since 1971 the Unit has made over 10,000 arrests and has a high conviction rate.¹⁷ And although there is a lack of published literature indicating public impact, the service of the Unit is often requested by citizen groups when they want additional police coverage. It appears, in other words, to be favorably perceived by the community and to have had a positive impact.

G. Impact on Minorities

Much of the negative impact which is the result of specialized patrol and other police tactics apparently is a result of insensitivity to minority groups within the community. Race relations did not appear as an area of police concern in the literature until the 1940's when several publications appeared discussing the problem.^{19,20}

The rise in the crime rate accelerated sharply after 1960.²¹ At the same time, evidence of alienation in the black community was growing.²² Yet as late as 1967 many police departments did not have formal police-community relations programs as shown in Table 4-1 from Havlick:²³

TABLE 4-1

CITIES WITH POLICE-COMMUNITY RELATIONS PROGRAMS, 1967

Population Group	Number of Cities Reporting	Community Relations Programs	
		Number	Percent
Over 500,000	25	18	72
250,000 to 500,000	27	12	44
100,000 to 250,000	86	34	40
50,000 to 100,000	180	63	35
25,000 to 50,000	264	43	16
10,000 to 25,000	547	67	12

By 1970 a survey by Louis Harris and Associates of citizen attitudes toward their local police departments showed that favorable attitudes were expressed by 67 percent of the whites polled, but by only 43 percent of the blacks. These statistics are not surprising coming after the civil disturbances of the sixties. According to Levy, nearly every incident of civil disorder began with an encounter between a police officer and a black citizen.²⁴

H. Impact on the Business Community

There is limited identifiable research on the impact of police patrol on the business community. One study conducted in 1967 found that owners and operators of business establishments in high reported crime areas had a less favorable opinion of the police than those in a low reported crime area.²⁵ Available information suggests, however, that the impact of patrol methods could mean success or failure to many establishments. The failure of the police to reduce or eliminate commercial robberies and burglaries could result in considerable harm to a business. On the other hand, the reduction of commercial robberies by stake-out surveillance methods may be detrimental to business if they result in conflicts in which innocent citizens, store owners, employees, police officers and alleged offenders are injured. Similarly, a uniform tactical unit performing saturation patrol could increase the entire community's sense of well being, attract trade

to the business establishments and improve police-community relations, even though not reducing reported crimes in the area. Yet in another community the same tactic could reduce reported crime but also drive people on legitimate business from the area to the dismay of the business community. It could also create conflicts with lawful elements of the area; be interpreted as being racially motivated; or create resentment on the part of both the public and police personnel. This alienation may be too high a price to pay for crime reduction.

The conclusion of a study of commercial attitudes conducted in connection with the Kansas City Preventive Patrol Experiment was:

Traditionally, patrol has been particularly oriented toward the prevention of crime and the maintenance of feelings of safety and security in business areas. The findings reported here indicate that the changes in routine preventive patrol as tested in this experiment had no effect on businessmen's attitudes towards crime in their neighborhood, their perception of police services or the number of protective devices used.

A newspaper article cites the value of foot patrol in the District of Columbia business community. Business persons interviewed by the reporter declared that they found their customers felt more secure and that law-abiding persons were less annoyed by the sight of drug peddling than when the area had been policed only by squad cars or by other types of units.

I. Legal and Ethical Issues

A number of specialized patrol tactics raise serious legal and ethical issues. For instance, suspect-oriented patrol, the act of keeping a known offender under constant observation while waiting for him to commit a crime, may be considered harassment.

The charge of entrapment of an alleged offender is another area of controversy in tactics such as the Washington, D.C. use of decoy bicycles or the New York City Street Crime Unit (Section F). The question may arise as to whether the decoy units are responsible for inducing a potential criminal to commit a crime.

During a site visit, it was found that in order to guard against the charge of entrapment, New York City police officials are comparing the number of first-time arrests for offenders apprehended by the Street Crime Unit compared with first time arrests for the entire department. If the first-offender arrest rate for the Street Crime Unit is larger, it could be the result of enticing a law-abiding person into his first crime by the provocative action of a decoy.

J. Police-Civilian Review Boards

Public distrust of police methods of handling complaints has resulted in demands for establishing review boards on which citizens as well as police serve. Mayor John Lindsay of New York City established a civilian

- . Civilian review of the police will give the public more confidence that the review process is fair and impartial

Police review boards, with or without civilian input, can be a factor in assessing the community impact of specialized patrol as well as of other police department operations. If investigations were publicized and circulated to police departments in other communities, a somewhat better picture of the positive or negative aspects of specialized patrol than now exists would be available.

complaint board for the police department in 1966. However, the New York City Patrolmen's Benevolent Association who were against such a board had the issue presented to the voters in a city-wide referendum. The review board was soundly defeated by almost a two to one vote. A complaint review board of full-time members of the police department now investigates civilian complaints against policemen.²⁹

As early as 1958, Mayor J. Richardson Dilworth of Philadelphia established a police review board to consider citizens' complaints of police misconduct. This board also heard complaints which involved no charges against an individual officer, but simply reflected a citizen's desire to have changes made in the police department or in precinct practices.³⁰

³¹Hudson gives the views of both those opposing and those who favor civilian participation in police review boards. Opponents have raised objections such as:

- . If doctors, lawyers, and judges can review their colleagues' actions without civilian or lay input, so ought the police
- . Fear of civilian review may make police less likely to take decisive action in crime situations

Persons in favor of civilian participation on police review boards contend that:

- . Civilian review of police departments will reduce the tension between the citizenry and the police

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V. EVALUATION

Evaluation can be a useful tool to any organization. A well-designed evaluation strategy permits an organization to measure progress toward objectives and to assess the effectiveness of methods used to attain objectives. The evaluation findings, in turn, can be used in planning future strategies for more effective goal attainment.

A well-designed evaluation of specialized patrol projects could provide police departments with answers to a number of crucial questions such as:

- . How effective is a particular patrol method?
- . What effects does a patrol method have on agency productivity?
- . How cost-effective is the patrol method compared to alternative patrol methods?
- . How effective is the management control of the project?
- . Is the project perceived favorably by the community?

Using the results from such an evaluation, a police department could then make decisions as to whether changes need to be made in the special patrol method and its management and whether or not it would be wise to implement similar projects in other jurisdictions.

A preliminary step to the evaluation is, of course, a clear identification of agency objectives and

evaluation criteria that will indicate the extent to which the objectives are achieved.

In this chapter, we will review and discuss the following subjects:

- . Crime-related measures of effectiveness
- . Improving the quality characteristics of crime rate, arrest rate and clearance rate measures
- . Productivity issues and measurements
- . The systems analysis approach
- . Evaluation design
- . Approaches to evaluation
- . Cost of evaluations

The focus of the discussion will be on studies dealing with specialized patrol techniques.

A. Review of Crime-Related Measures of Effectiveness

According to a U.S. Department of Justice study, police department objectives are often simplistic.¹ They may be reflected in statements as global as "the reduction of crime." Using simple statistics showing reductions in crime rates would tell departments little about the reasons for the reduction nor would it identify which police strategies, if any, led to the reduction in crime.

Further, reductions in crime rates would be a poor measure of the effectiveness of traditional police patrol activity. Studies have shown that up to 80 percent of traditional police patrol activity has little to do with serious crime.^{2,3,4} Yet, there is a rather prevalent belief that

crime reduction is the only criterion that should be used to evaluate police activities.^{5,6}

The American Bar Association,⁷ among others,^{8,9,10} takes exception to this stance. In its recent report, "Standards Relating to the Urban Police Function," the American Bar Association explicitly avoids the traditional criteria of arrest rates and reduction in crime rates as output measures. The report, instead, lists six measures that could be used to evaluate the effectiveness of police activities:

1. The safeguarding of freedom, life, property and rights
2. Fairness and civility
3. The use of minimal force
4. Conformance to the law
5. Resolution of individual and group conflict
6. Referrals to community services

Admittedly, some of the criteria recommended by the American Bar Association would be difficult to measure and need to be formulated in operational terms if they are to serve as valid evaluation criteria. This report, however, is illustrative of some current discontent with the use of crime-related measures as criteria for determining the effectiveness of police activities.

Despite some discontent with their use, crime-related measures continue to be the major criteria for determining police effectiveness^{11,12} and, therefore, deserve further consideration.

In evaluating specialized patrol strategies, most evaluators have simply counted the number of relevant crimes reported, the number of target crime arrests that can be attributed to the unit and/or the number of target crimes cleared as a result of the arrest. Occasionally, the amount of property recovered and returned to the owner is used as an effectiveness measure.¹³

The crucial question is, of course: How effective are crime-related measures for evaluating police departments? The following sections address this question; more detailed discussions on improving the quality characteristics of crime, arrest and clearance rates appear in section 3

1. Crime Rates. Crime rates are statistics that reflect only reported crimes (see also section B). They are calculated by using the number of specified types of crime reported in a jurisdiction each year and normalizing the figure on the basis of a standard population (usually 100,000 people).¹⁴

The crime rate is subject to at least two deficiencies. One is the fact that it is almost certain to be an underestimate of the extent of crime in any given area since it reflects only reported and not actual rates of crime. Many victims fail to report crimes for various reasons. They may feel the incident is a family matter which should not involve the police, that police have no interest in providing assistance, that there will be reprisals if they report, etc. Secondly, the crime rate is a measure easily subject

to manipulation by officials, especially when it involves minor crimes.

Reliance on aggregated crime rates can also lead to false conclusions. For example, one evaluation of a burglar alarm tactic used by a specialized patrol found a reduction in commercial burglaries but an increase in residential burglaries.¹⁵ Had reliance been placed on the overall burglary rate, some obviously important information would have been lost and any conclusions drawn would have been misleading.

2. Victimization Survey. One method of estimating the crime rate which does not depend upon reporting procedures is the victimization survey. This method simply involves surveying a given sample population to find the number of crime victims and using this figure to estimate the victimization rate in a larger population.^{16,17,18} This method is currently used in a number of LEAA experimental programs.¹⁹

Citizen survey methods, however, are seldom used by police departments--perhaps because of cost factors. The person-to-person interviews upon which most citizen surveys are based typically cost between \$25 and \$50 per interview.²⁰ The Police Foundation²¹ and Webb and Hatry²² have experimented with the use of telephone interviews and found that these cost about half as much as house-to-house surveys. However, more research is needed to test the cost-effectiveness of different victimization survey techniques.

3. Arrest Rates. Arrest rates are another measure frequently used in evaluating police effectiveness (see also section B). Arrest rates are usually defined as:

- . Ratio of arrests to reported offenses
- . Ratio of arrests to number of policemen on patrol
- . Ratio of arrests to number of investigative personnel
- . Ratio of arrests to amount of monies spent on arrest activities

The ratio of arrests to reported offenses is the most commonly used arrest rate measure. Like other criteria, it can be an inadequate measure of police effectiveness. Arrest rates could be manipulated easily by officers who feel compelled to satisfy certain political pressures.

Using indicators of the quality of arrests in analyzing arrest rates is one means of improving the evaluation of police effectiveness when relying on arrest rates. Checking arrest rates against changes in crime rates determined by victimization surveys or the number of police allocated to the crime problem are other means of improving this form of evaluation.

The relationship between arrest rates and the number of policemen allocated to the crime problem has received some study. Press found that a 36 percent decrease in outside felonies coincided with a 40 percent increase in the number of uniformed police employed in a Manhattan precinct.²³ Greenwood noted that plainclothes specialized police made

about four times the number of arrests made by uniformed patrolmen in another precinct in Manhattan.²⁴ Grieco reports the use of operations research methods to analyze the relationship between arrest rates and the number of plain-clothes and uniformed police assigned to the problem.²⁵

4. Crime Seriousness Index. An alternative method of measuring crime is the Crime Seriousness Index (CSI) developed by Sellin and Wolfgang.²⁶ The CSI permits a weighting of different types of crime. The weights were derived through questioning judges and police about different cases and permitting them to assign a weight to each type of crime. For instance, a weight of 26 is assigned to each murder victim whereas the weight of 1 is assigned to a stolen property case involving a property value of less than ten dollars. The results obtained from all interviewees are then used to obtain average weights. The classification is based on harm done to victims rather than legal definitions. The method, however, has not proven totally effective. For example, a study using the CSI in St. Louis found that after totaling figures that seriousness of traffic accidents was greater than that of crime.²⁷ One would expect crime to be more serious.

5. Clearance Rates. The clearance rate is the percent of reported crimes that are "cleared," that is, considered solved, by at least one arrest or by some exception such as the death of the accuser, failure to prosecute, etc.²⁸

Clearance rates have sometimes been used to measure police effectiveness on the assumption that this measure shows how well the police are actually performing on the crimes brought to their attention (see also section B). The form of clearance rate used most often is the ratio of crimes solved (by type) to the total number of reported crimes. It is, therefore, a measure severely affected by the total number of crimes which, in turn, may be more related to societal problems than to police effectiveness. For example, if the crime rate increases by 15 percent in a community and the number of cases cleared by arrest increases by 10 percent, the clearance rate would decrease. This fact alone limits the effectiveness of this type of measure. In addition, the measure cannot deal with the fact that one arrest alone can clear a crime, even when that crime was committed by more than one person. Nor can it handle a case where a defendant confesses to a series of crimes that are then cleared whether or not the defendant confesses. The measure does not reflect quality of arrest nor is it related to prosecution rates.

6. Hazard Formulas. One measure used for evaluating the effectiveness of alternative police allocations is a linear hazard formula.²⁹ The formula contains a combination of all variables that reflect a need for police services. The list can change from city to city and includes items such as the number of dispatches, reported crimes, street miles, arrests and licensed premises in an area.³⁰

CONTINUED

2 OF 3

The formula for a hazard score in area i is:

$$\sum_j X_{ij} w_j$$

where X_{ij} is the fraction of the j^{th} variable and w_j is a weighting factor with $\sum_j w_j = 1$

The number of patrol personnel in an area should be proportional to the hazard scores for that area.

The major problem of this method is that it can produce inappropriate allocations of patrol personnel because estimates of many of the variables will be highly probabilistic and often highly interdependent.

7. CAPER. CAPER is a technique designed to analyze crimes reported to the police.³¹ It provides frequency measures of crime as to location, type, target groups and other detailed information. This information is gathered by officers through citizen complaints, investigation reports and observations by the officer. CAPER is essentially crime statistics grouped by relevant variables; it suffers all the problems of other crime statistics, but reportedly offers the advantages of providing more detailed information and permitting a more sensitive evaluation of projects.

8. Geographic Equality Measures. Frequently the question arises: How equally are resources such as police staff and equipment distributed among or between neighborhoods? Effectiveness measures designed to answer this question have been tested by Bloch.³² The measures include:

- . Total number of police per reported robbery and reported crime
- . Number of police per population and square mile
- . Number of supervisory police personnel to total police
- . Historical and current robbery rates
- . Burglary and index crime rates per resident
- . Violent crimes and violent crime rates
- . Robbery, burglary and total index crime rates and percentage changes
- . Clearance rates for robbery, burglary and total index crimes
- . Total calls for service
- . Number of calls per patrol unit

It can be noted that all of the measures relate to the police department and its internal operations; citizen perceptions are not considered.

The Urban Institute³³ used these equality measures to study differences between two districts in Washington, D.C. The data proved difficult to obtain for a complete analysis of equality of services. The method obviously needs further testing and perhaps refinement.

B. Improving Quality Characteristics of Crime Rate, Arrest Rate and Clearance Rate Measures

The various methods discussed in the foregoing section are subject to a number of methodological shortcomings. This section discusses the weaknesses in somewhat more detail and suggests ways in which the various crime-related measures might be improved.

1. Crime Rate. The National Commission on Productivity found that weaknesses in the basic data on crime statistics and police outputs have led some researchers to reject these types of data altogether.³⁴ Others object to the misuse of crime rates^{35,36} or to applying them as the sole criterion for judging the quality of police services. Despite these problems, crime statistics remain the most timely information available to the police to assist them in tactical decisionmaking. Improving the statistical system obviously would be of benefit to the police and would certainly assist researchers who rely on the system in evaluating police effectiveness.

Improving the reporting system is a much-needed first step in revising crime statistics. To effect this, ways need to be found to encourage victims, the police and state and local governments to report some types of criminal activity that presently tend to go unreported.

The reasons for nonreporting vary. Some examples should suffice in portraying this variation.

- . An uninsured victim of a burglary chooses to install a new lock on his door rather than chance repeated court appearances that might ensue if the crime were reported³⁷
- . A beat officer fails to make an offense report or arrest because he feels the case will not be processed in court
- . A police administrator, judged daily by the number of crimes reported in his jurisdiction, feels little motivation to report an additional number of crimes since they do not reflect an actual increase in victimization³⁸

Cities and states may be added to the list of nonreporters. Anxious to attract tourists, trade or industry, or wishing to calm citizens' fears of crimes, governments too become conscious of the social, economic and political impact of high-reported crime rates.

In summary, the reasons crimes are not reported range from an individual's desire to avoid embarrassment or inconvenience to a possible lack of integrity among public officials. Morgan has proposed a number of ways to ensure integrity. He suggests that questionable events always be reported as crimes. In cases where the classification of a crime is in question, Morgan recommends that the crime be classified as a higher-order offense. He notes that in an environment where reported crime rates of one jurisdiction are constantly being compared to those of other jurisdictions, individuals and jurisdictions are likely to suffer both economically and politically. Such a comparative policy, therefore, can be destructive.³⁹

Regardless of the reasons for under-reporting, or the likelihood of finding a practical solution to the problem, it is a fact that not all crime is discovered; that which is discovered is not always reported; that which is reported is sometimes not recorded; that which is recorded is, at times, misclassified; and some of what is classified is not counted.

Reported crime, in short, is a biased sample of the universe of all committed crime. The proportion of total crime represented by reported crime differs not only from one jurisdiction to another but also between relatively small geographic areas within a jurisdiction and by type of offense. However, with all its inadequacies, reported crime is still the best available measure of total crime.

What is needed is some method of identifying the sample bias and the proportion of total crime represented by that which is reported. A given strategy could be effective, even though reported crime remained constant or even increased, if the strategy led to a reporting of crimes that otherwise would not have been reported.

Joseph H. Lewis of the Police Foundation points out that neighborhood team policing supposedly increases the percentage of crimes that people report to police.⁴⁰ Saturation of an area with uniformed patrolmen may encourage those who frequent the area to report crimes which would not be reported under other conditions because the victim acts on impulse, because it is convenient⁴¹ or because of a Hawthorne effect.⁴²

Victimization surveys appear to be the best means available for measuring the extent to which reported crime represents all committed crime. One major problem with their use is their costliness. Another is that the results of these surveys are easily misinterpreted by statistically

unsophisticated persons. And, because such studies point to shortcomings in crime reporting systems, public officials may be reluctant to use them.

A summary of methodological observations for conducting victimization surveys appears in the report of the National Advisory Commission on Criminal Justice Standards and Goals.⁴³ The report concludes that household surveys in which each person responds for himself are more accurate than those in which a single member responds for the entire household. The report also notes that personal contact interviews are more accurate than telephone interviews.

Webb and Hatry⁴⁴ have found, however, that reliable conclusions can be drawn from the relatively inexpensive telephone victimization surveys when valid but low-cost sampling techniques are used. This method should be appropriate for evaluating the effectiveness of specialized patrols, a study which does not appear to require the more costly person-to-person interviews.

One deficiency of the typical crime reporting system is that it cannot account for dispersion of crime. It is well known that a strategy which seems to reduce crime within a defined geographical area may merely disperse crime to another geographical area or another time period. Tracking and measuring such dispersion is beyond the capacity of most existing data collection systems. Dispersion across political subdivisions, particularly across state lines, is

especially difficult to measure because of differences in reporting policies and procedures in these areas. Further, the dispersion of offenders may make the detection of crime even more difficult.⁴⁵

Trend analysis can be an important measurement tool for determining dispersion and for evaluating the impact of special patrol tactics on crime.⁴⁶

2. Arrest Rates. A common goal of police agencies is the apprehension of those responsible for crime. The number of arrests alone is generally believed to be an inadequate measure of progress toward this objective.⁴⁷ A "quality of arrest" indicator is needed to ensure that there are no incentives that can lead to questionable or unnecessary arrests.⁴⁸

The crucial question is, of course: What is a qualitatively acceptable arrest? The best proof of the validity and quality of an arrest seems to be whether or not the arrestee was eventually found guilty of a crime. However, conviction rates usually are subject to many forces outside the control of the police, such as actions of court prosecutors and witnesses. In addition, very few police departments receive enough feedback to track defendants through adjudication.⁴⁹ The National Commission on Productivity has suggested that the best measure of effectiveness in this area is the number of arrests surviving the first judicial screening.⁵⁰ While this or a similar approach represents an advance in solving the problem of the quality of an

individual arrest, it does not tell us the value of one arrest as compared to another. It is unreasonable to classify arrests for traffic violations and other petit offenses together with felony arrests without some effort to add a value to arrests for more serious offenses. Table V-1, taken from Block and Specht,⁵¹ shows how one might score arrest activity in considering the quantity, quality and value of arrests. In such an approach, the responsibility for determining the arrest activity and its relative value would ultimately be a matter for local governments and agencies.⁵² For example, one department might wish to refine the definition of felony arrests by separating arrests for crimes against persons from crimes against property. Another department, faced with a serious traffic accident problem, might wish to increase the score for moving traffic citations.

It is especially important in evaluations of specialized patrol operations that there at least be descriptions of different types of arrests in order to understand better the impact of the operation on the arrest goal.

3. Clearance Rates. As Eastman and Eastman note, clearance rates are commonly associated with the investigative functions of a police department.⁵³ However, they are sometimes used as a measure of effectiveness for specialized patrol operations.⁵⁴ As noted previously, there are serious problems associated with the use of this measure.

TABLE V-1
SAMPLE ARREST INDEX^{*}

Activity	Point Score	Comment
Parking violation	1	Do not count if dismissed.
Moving violation	2	Do not count if dismissed.
Misdemeanor arrest (no prosecution)	4	
Felony arrest (no prosecution)	8	
Misdemeanor arrest resulting in a prosecution (no conviction)	8	
Felony arrest (no conviction)	16	
Misdemeanor arrest (conviction)	12	
Felony arrest (conviction)	24	
Arrest without probable cause	-4 to -24	Minus score depends on seriousness of the officer's error and frequency of previous error (do not count any positive points for the arrest).
Arrest involving the necessary use of physical force	+4	In addition to other points earned for the arrest. Do not count if the arrest was without probable cause.
Arrest involving an error in judgment causing injury or death to offender	-4 to -24	Minus score depends on seriousness of officer's error and frequency of previous errors.
Arrest involving injury or death of bystander	-24 to -72	Minus score depends on seriousness of officer's error and frequency of previous errors.
Arrest of an individual for several previous offenses	--	Total points for all offenses up to a maximum score of 36, including points for prosecution or conviction. Also count points related to the use of force or avoidance of force in connection with the arrest.

^{*} From Block and Specht

The counts of clearances used in most jurisdictions include incidents for which an arrest was made. There is no control for the quality of the arrest, such as counting only those clearances where the arrest survives the first judicial screening.⁵⁵

Another problem arises from the use of exceptional clearances. Some exceptional clearances are cases cleared when an offender in custody confesses to other crimes, the accused dies or the victim refuses to prosecute. The inclusion of exceptional clearances in the clearance rate raises the question of the meaning and value of clearance rates as measures of effectiveness.⁵⁶

A third difficulty with clearance rates is the fact that they are influenced by factors other than patrol strategies. Detectives and prosecutors, for instance, may be more effective than patrol staff in obtaining confessions from the accused to crimes other than the one under immediate consideration (e.g., detectives may promise to put in a "good word" for the defendant or prosecutors may take confessions in the plea bargaining process). In such cases, evaluation findings might be distorted if one were to attribute such clearances to the specialized patrol unit, even though it was responsible for the initial arrest of the defendant.

Finally, clearance rates are related to the number of crimes and not the number of offenders. For example, if one

of four persons wanted for bank robbery is arrested, the crime is considered cleared even though three persons are still being sought. To obtain a more reliable measure, Hatry has suggested that clearance rates be based on the percentage of the known number of offenders in the population who are apprehended rather than the number of crimes.⁵⁷

C. Productivity: Issues and Measures

Measures of productivity provide another means for evaluating specialized patrol activities. In view of current economic and political issues, such measures offer a number of advantages. However, there is a certain amount of resistance to using these measures to assess police effectiveness. We will discuss some of these problems and issues in this section as well as means of constructing appropriate productivity measures and using the ensuing information in meaningful ways.

1. Economic and Political Issues. Public employees are a significant portion of our nation's work force. Although we rely heavily upon public services, Murphy notes that there is concern over the fact that the cost of these services has risen rapidly in the last decade.⁵⁸ In 1972, for instance, the nation's public police forces alone cost the taxpayer \$6.2 billion. The National Commission on Productivity estimates that this \$6.2 billion represented a 20 percent increase over the previous year's expenditures; yet, there was no evidence of any significant return on this increased investment.⁵⁹

Given the increasing resistance to higher state and local taxes, mayors and other elected officials are continually seeking new ways to make better use of public resources.⁶⁰ Since conventional wisdom dictates that citizens will generally rely on police performance as the primary measure of the effectiveness and responsiveness of local government,⁶¹ it is logical to assume that police agencies will be held increasingly accountable for their expenditures of public resources. This has not always been the case. There are four major reasons why police administrators, to date, have not been held closely accountable for their use of public resources.⁶²

First, it is difficult to define precisely the responsibilities of the police. Goals for police agencies may range from an easily quantifiable criterion such as the apprehension of offenders⁶³ to an almost unquantifiable one such as the protection of constitutional guarantees.⁶⁴

The second reason for the relatively autonomous nature of our police operations is the fragmented and isolated character of our locally-based police organizations. The principle of local government is deeply embedded in our society. The high level of autonomy permitted police administrators in expending public resources can be traced directly to municipal reform movements initiated in the last century. These movements were designed to insulate government services from partisan politics. Law enforcement agencies were, and

in some cases still are, prime targets for such reform movements.⁶⁵

A third reason for nonaccountability is the aloofness of the police for the public in general. Hahn has drawn the following conclusions about the police subculture:⁶⁶

As police departments become increasingly professionalized, they tend to become self-contained rather than reliant upon the assistance of the public. One of the principal means by which police maintain their separation from the community is through a vigorous emphasis on secrecy.

Finally, the emotionally overpowering fear and frustration among many citizens concerning crime and violence have resulted in political concern focused on crime and criminal matters to the exclusion of other important areas of police administration. Hamilton notes a decline in this stance:⁶⁷

During most of this century simply categorizing an activity as necessary to security or safety forestalled serious debate about the value received for the dollar expended. However, the fading of much of the security mystique, beginning with the military and extending to the police, has combined with the evolutions of incentives to encourage a new and healthier attitude toward the dilemma of political scrutiny of police effectiveness.

2. Benefits of Productivity Measures. Harry P. Hatry has identified several uses of police productivity measurement.⁶⁸

- . By identifying current levels of productivity, measurement can indicate the existence of particular problems.
- . When productivity is measured over time, measurement can indicate the progress or lack of progress in improving productivity.
- . When collected by geographical areas within a jurisdiction, productivity data can help identify areas in particular need of attention.

- . Productivity measurement can serve as a basis for evaluating specific activities and may indicate activities that need to be modified or personnel who need special attention, e.g., training.
- . Measurements of existing productivity can provide agencies with the information necessary to set productivity targets. Actual performance can subsequently be compared to the targets to indicate degree of accomplishment.
- . Performance incentives for both managerial and non-managerial employees might be established. For example, the City of Orange, in a recent controversial experiment, has linked future salaries to selected reported crime reductions. By utilizing a larger number of productivity measures, it may be that performance incentives could be placed in a reasonably comprehensive perspective and maintain public credibility.
- . Measurement of data can be used for in-depth productivity studies on ways to improve specific aspects of productivity.
- . Productivity measurement information can be a major way of accounting for government operations to the public.

The National Commission on Productivity describes the beneficial results of productivity measurement in more general terms:⁶⁹

- . It encourages the kinds of comparisons and public scrutiny that lead to better service for citizens from their local governments
- . It provides an index of progress, or lack of progress, for individual local governments
- . It can help develop performance targets based on aggregate data for similar communities
- . It dramatizes diversity and, thus, generates efforts to determine the reasons for success and whether these reasons can be applied more widely to treat the causes of failure

- . It serves as a basis for performance incentives that can be used by government management and labor in the establishment of wage and working conditions
- . It guides the Federal Government in allocating resources to raise the level of performance throughout the nation

3. Resistance to Productivity Measurement. Resistance to productivity measurement is not uncommon among police departments, nor is it uncommon among other types of public and private employees. It generally stems from misconceptions about the method and its relationship to law enforcement agencies. Police often believe that they do not need productivity programs because improvements will occur automatically through existing management processes.⁷⁰ Traditionally, police have relied upon additional resources to improve protection against crime.⁷¹ They have not been in the position of having to accomplish their objectives with reduced, or even stable, resources. The result is a public bureaucracy with little real information on the overall effect of its various operations, including specialized patrol operations; thus, its administrators often must make intuitive decisions about resource allocations.⁷²

Another misconception is that productivity measurement and improvement are restricted to the manufacturing industries.⁷³ It is certainly true that measuring productivity is greatly facilitated in an instance where the number of dollars expended can be compared to the number of items produced, as in a manufacturing industry. Measuring police productivity is more difficult.

Policemen are not like workers on an assembly line. They are members of a group of service employees who rely so much on balanced judgment in performing their duties that there is no identifiable way of developing a quantitative method to assess accurately the absolute or relative productivity of individual policemen.⁷⁴ Police often resist efforts to quantify their performance and dislike any implicit comparison with workers on an assembly line.⁷⁵

4. Measuring Police Productivity. In recognizing the need for a systematic approach to improving police productivity, the National Commission on Productivity recommended a five-stage approach: (1) establishment of goals and objectives; (2) systematic assessment of progress; (3) search for improved operating methods; (4) experimentation; (5) implementation.⁷⁶

Establishing goals for a police department requires attention to the volatile array of purposes and values being served.⁷⁷ Ultimately the problem of identifying goals and establishing objectives is a matter for local determination. For productivity measurement, however, Hatry identified the following, almost universal, outputs of police activity: (1) preventing or reducing crime; (2) maintaining a feeling of security in the community; (3) apprehending the persons responsible for crime; (4) performance of noncrime-related functions; (5) maintaining or improving the quality of the above outputs.⁷⁸

Specialized patrol operations generally are characterized by a decreased responsibility for the fourth output (i.e., performance of noncrime-related functions) and a corresponding increase in responsibility for the remaining crime-related outputs. It should be emphasized that division of work--in the sense of occupational specialization--is an economic principle and not a management principle.⁷⁹ The crucial question in determining the effectiveness of a specialized patrol operation and the resources it consumes is whether it is more cost-effective in maintaining or increasing the agency's overall output than other available patrol strategies.

Productivity measures can involve measurement at any one, or combination of, six levels in the criminal justice system.^{80,81} These levels include:

- . Individuals (i.e., the productivity of individual members of a civilian dress unit)
- . Units (i.e., teams of officers or squads)
- . Kinds of units (e.g., uniform tactical units)
- . The entire department
- . The crime control system (i.e., combinations of public and private resources devoted to prevention)
- . The total criminal justice system (citizens, businessmen, police, courts and corrections)

The productivity of specialized patrol operations is usually evaluated at the first three levels.

In general, productivity can be expressed as:

$$\frac{\begin{array}{c} \text{Measure of Effectiveness} \\ \text{(i.e., output)} \end{array}}{\begin{array}{c} \text{Measure of Resources} \\ \text{(i.e., funds/manpower) Expended} \end{array}} = \text{Productivity}$$

Those activities which increase the numerator without an equivalent increase in the denominator, or those which decrease the denominator without an equivalent decrease in the numerator, are more productive. A simple, but inadequate, expression of police productivity is:

$$\frac{\text{Reported Crime Rate}}{\text{Total Police Budget}} = \text{Productivity}$$

The latter formula, in many cases, has provided the sole measure of police performance and the adequacy of police service. James P. Morgan notes:⁸²

The tenure of budgets of police chiefs have been tied to the Uniformed Crime Reports for too long. Most city officials have continued to judge the quality of police service provided their citizens by comparing their own city's Uniformed Crime figures with those in other cities.

We will discuss more desirable criteria for numerators and denominators for productivity formulas in the following sections.

a. Numerators of the Productivity Ratio. A list of measures of effectiveness for a specialized patrol should always include the effect of the activity on crime and arrests. We have already discussed the need to measure both quantity and quality of both these measures (see section B). The following measures, adapted from the National Commission on Productivity, estimate both quantity and quality.⁸³

Arrests

- . Number of arrests surviving the prosecutor's screening
- . Number of arrests surviving the first judicial screening
- . Number of arrests resulting in conviction for the original offense charged
- . Number of arrests resulting in conviction for the original offense charged or lesser included offense
- . Number of felony arrests surviving the prosecutor's screening
- . Number of felony arrests surviving the first judicial screening
- . Number of felony arrests resulting in conviction for the original offense charged
- . Number of felony arrests resulting in conviction for the original offense charged or a lesser included offense

Crime Rates

- . Existing reported crime indices (to be used with discretion)
- . Victimization surveys

b. Denominators of the Productivity Ratio. Measures of efficiency are expressions of the amount of resources devoted to the achievement of a particular result. Hatry notes that, in general, it is desirable to relate output measures to both manpower and total dollars.⁸⁴ This is especially desirable if a particular specialized patrol operation such as New York's Anti-Crime Unit, used considerable funds for equipment in setting up the unit.

Hatry also discusses typical input measurement problems. A major problem involves the manner of classifying and measuring resources applied to noncrime activities, particularly in cases where the same officers are responsible or regularly perform both crime and noncrime functions.⁸⁵

Acquiring cost data on control activities for specific crimes is another difficulty, especially where the same police employees routinely handle more than one type of crime.

Overhead, support and equipment costs are also problems. Supervision, employee fringe benefits, special pay for exceptional personnel and other input factors all need to be considered when measuring total costs.

5. Constructing Appropriate Productivity Measures. The National Commission on Productivity noted that there are two ways of measuring specialized patrol operations productivity: (1) through the construction and use of an overall formula for expressing productivity (composite index) and (2) through development and use of a series of component productivity indicators.⁸⁶

Noting the complexity of the police mission, the National Commission on Productivity, advised against the first approach since it would require combining and weighting a number of various measures and could obscure important relationships. Instead, they recommended a combination of expressions such as:⁸⁷

$$\frac{\text{Number of Felony Arrests}}{\text{Patrol Man Years}} = \text{Productivity}$$

$$\frac{\text{Level of Citizen Satisfaction}}{\text{Patrol Man Years}} = \text{Productivity}$$

Such expressions can be arrayed so as to give the police administrator a truer picture of the unit's impact on each of the agency's goals. However, these measures suffer from all the deficiencies previously noted regarding the number of arrests, crime rates, etc.

6. Using Productivity Information. It is obvious that police administrators could make use of productivity information in evaluating the effectiveness of specialized patrol operations. Special units are designed to attack a specific problem or to employ a specific resource. The units are based on a recognition that the added or marginal value of putting a few more regular patrolmen on the force may not be as great as using that manpower in a specialized and more productive fashion.⁸⁸

One way of assessing the impact of a specialized unit would be to compare its productivity in certain areas with the productivity of traditional patrol forces. For example:

Number of Specialized Patrol Felony Arrests Surviving the First Judicial Screening	compared to	Number of Traditional Patrol Felony Arrests Surviving the First Judicial Screening
Total Specialized Patrol Man Years		Total Traditional Patrol Man Years

A series of such comparisons using a number of different measures of effectiveness and/or efficiency would permit the police administrator to make an informed decision as to the effectiveness of a particular specialized unit.

One difficulty in assessing the relative value of specialized units is the fact that they are often staffed with exceptional personnel, persons who would normally account for a high number of quality arrests if they were on traditional patrol. This fact was recognized by the National Commission on Productivity.⁸⁹ It suggested that the arrest productivity of officers on specialized patrol be compared with the time they are on traditional patrol. A suggested alternative approach would be to compare specialized patrol officers with only the most productive traditional patrol officers.

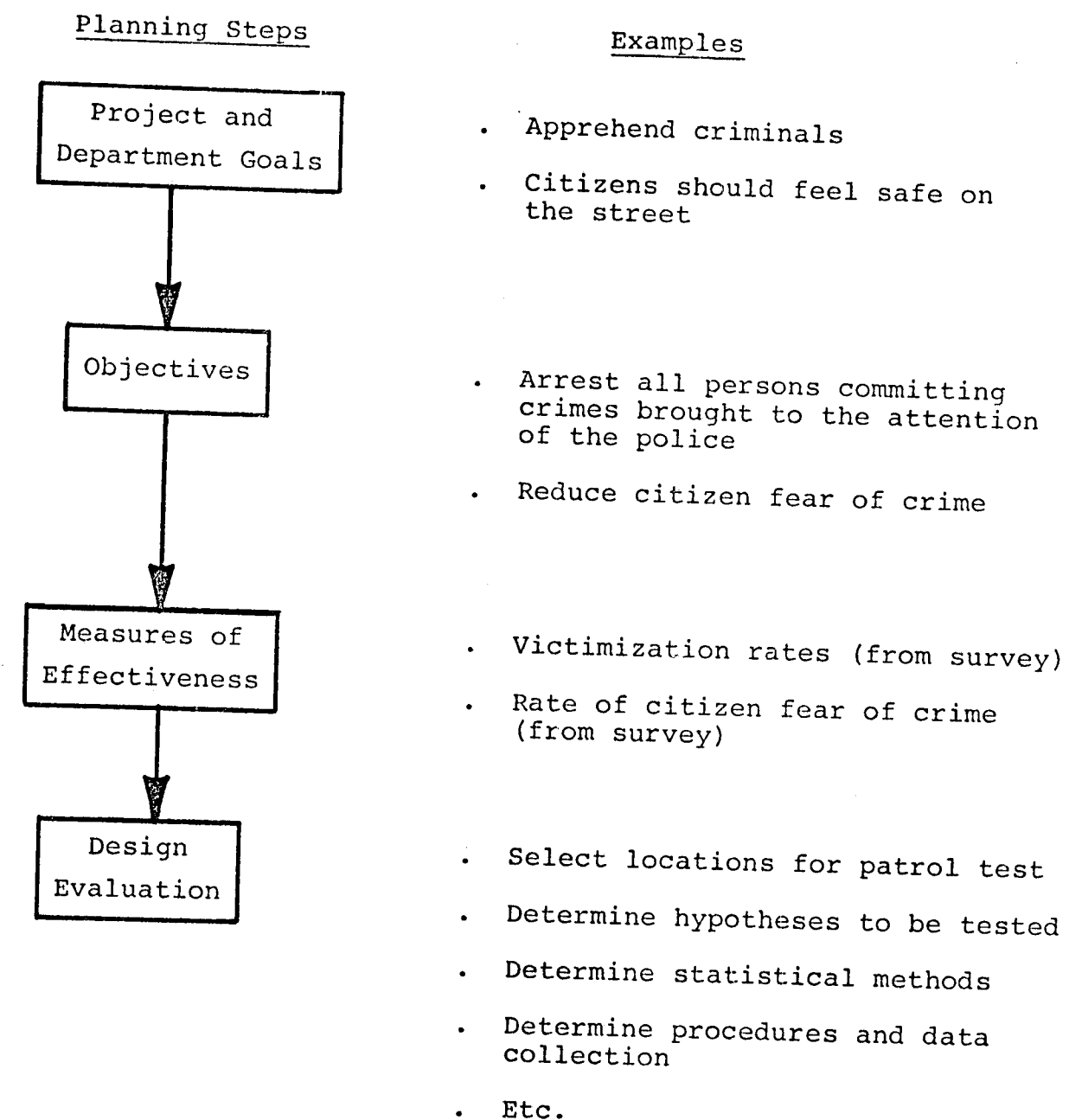
D. Systems Analysis Approach

The above discussion of measures of effectiveness, efficiency and productivity was intended to show the complexities of measuring the effects of police activity. Systems analysis approaches to evaluating patrol operations generally make use of four basic steps in planning the evaluation and have been identified as essential to valid program evaluation.⁹⁰

Figure V-1 shows a simple systems analysis approach to planning an evaluation and provides examples of each identified step.

Goals are concepts of ideal police department activities and their desired impact. Some goals may be stated in such global terms that they are not operationally measurable. Objectives are translations of goals into specific activities

FIGURE V-1
SYSTEMS ANALYSIS APPROACH TO PLANNING AN EVALUATION



and certain standards against which performance can be compared. Measures of effectiveness are the means for determining progress toward achieving the objectives.

Reviews of police patrol experiments show a general failure to follow the process of arriving at goals, objectives and measures of effectiveness before implementing an evaluation.⁹¹ Sometimes the goals and objectives are identified but bear little relationship to the inferences made from a statistical test.

The following discussion will be concerned with the variety of decisions that must be made in developing an evaluation design.

E. Evaluation Design

The subject of constructing an evaluation design to assess a specialized patrol (or any patrol function) is very complex. The complexity occurs because of the need for rigor in designing the analysis. There are four primary purposes for analysis that demand a rigorous approach:⁹²

- . Success level determination
- . Management needs for monitoring and direction
- . Contribution to next level of evaluation
- . Diagnostic

Each purpose is defined below.

Success level determination.--Effectiveness measures such as those in the previous section are used as measurement tools to determine if a project or program was successful.

Management needs for monitoring and direction (management and control).--This concerns the provision of project or program management with decision-making information such as:

- . How to identify and resolve problems
- . When and how a program should be modified
- . When project continuation should be considered

Contribution to the next level of evaluation.--This is an assessment of the contribution of the project to overall departmental goals.

Diagnostic.--This branch of the project analysis is concerned with identifying and analyzing the reasons for success or failure.

1. Approaches to Evaluation. The literature contains two main approaches for analyzing specialized patrol operations.

1. Within selected beats or precincts the specialized patrol technique is applied and measures of effectiveness are compared in any of the following ways:

- . Between the year or years before using the technique and the time period when the technique is applied
- . Between successive years of applying the technique
- . Between the specialized unit and regular police

2. Different beats, precincts or districts are used in the testing. Usually one or more is a control, that is, an area where the patrol technique to be tested is not used. The other matched areas are

used for assessing different applications of the technique. Measures of effectiveness are compared in test sites and the control site.

In order to describe fully how these two approaches are used for evaluating specialized patrol, an illustration of each will be described.

a. New York City Anti-Crime units. One noteworthy example of the use of the first approach is a study of the New York Anti-Crime Patrol described by the New York City Police Department and Abt Associates.^{93,94}

i. Background. The concept underlying the testing of the anti-crime patrol began in 1970 when the Police Commissioner allowed civilian clothes officers in each city precinct. This plan was designed to fill a gap between the work of the traditional patrol and the investigation by detectives, that is, before a crime is perpetrated and after a crime has been committed.

ii. Experiment description. In addition, a City-Wide Anti-Crime Section (later called the Street Crime Unit) was organized in November 1971. This unit reported to the Chief of Patrol. Thus, there was a city-wide unit and precinct units at work simultaneously. Both selected very experienced and capable officers. Various plainclothes tactics were tried throughout the city. In addition to the plainclothes officers, special housing, unmarked automobiles, disguises, an ultrahigh frequency radio network and other equipment were made available to the unit.

Specific deployment tactics, such as female decoys and taxi surveillance, were determined by the nature of the crimes being combatted. The selection of officers was made with emphasis on experience, arrest performance, integrity and motivation. The training program was based on general orientation, unit training, roll call, slack time and outside command training.

iii. Objectives and criteria. An objective was identified: the achievement of high-quality arrests for violent street crimes while maintaining public safety and respect.

The measures of effectiveness that were used included:

- . Number of arrests
- . Number of felony arrests
- . Number of robbery arrests
- . Number of grand larceny arrests
- . Reduction of crime rates
- . Average man days per arrest (efficiency measures)
- . Conviction rates
- . Safety
- . Corruption
- . Entrapment

iv. Experiment results. The success of the tactic was assumed because of increases in the arrest rates which were directly attributable to the plainclothes officer activities. In addition, in the precincts in which the City-

Wide Unit was most heavily assigned, the average man days per arrest were much smaller than for the entire department. The conviction rate for the specialized patrol units was also much higher than for the entire department.

The effect on the crime rate was more difficult to assess because it is generally very difficult to attribute change in crime rate to specific causes. An attempt was made to determine the possible effect of the Street Crime Unit on the crimes of robbery and grand larceny, on the person at the precinct level.

In the precincts where the Units were deployed, a null hypothesis was tested, i.e., that the Unit had no effect. Statistical elimination was made of the effects of trend, seasonality and effects of other units. Regression analysis was used to test the hypothesis. Regressions between robbery rate and Unit activity showed significant negative correlations in five out of 44 precincts. In the case of grand larceny, the correlations were significant in 12 out of 44 precincts.

The data were further analyzed using multiple regression techniques to assess such variables as crime rate, time, season, presence of other units and the presence of the Street Crime Unit. The outcomes of this test showed that the results could not be confidently assessed. The number of data points (months of data) was insufficient for making a confident conclusion. The displacement effects could not be assessed because the analysis of adjacent precincts was confounded by the presence of uniformed Tactical Patrol officers.

The data did show that shooting incidents increased 25 percent while the number of robbery arrests increased by 11 percent. There was an 85 percent increase in line-of-duty injuries also.

The department conclusions concerning this operation were that the New York City City-Wide Street Crime Unit was making high-quality arrests for violent crimes. It was doing this with nominal increase in cost per conviction, minimal danger to officers, the suspects and the general public. The evidence did not show a decrease in crimes.

v. Conclusions. This brief description illustrates how one can evaluate the operations of a Street Crime Unit by comparing both the operations during two different time periods and by comparing a specialized unit operation with the operations of an entire police department. The measures of effectiveness selected were in support of the Unit's overall goals.

However, the design suffered from several weaknesses. One was the selection of highly qualified personnel rather than randomly selected personnel as study subjects. The personnel selection procedure may have resulted in a test of personnel rather than of police strategies. Further, it did not permit any determination as to whether the tactical personnel would have performed just as efficiently in the more traditional system.

b. Kansas City preventive patrol experiment. The second main technique for assessing patrol operations involves the use of control areas where the experimental technique is not applied. The results in the control area are compared to those in areas where the technique is applied.

i. Background. The best illustration of this method is a test of different levels of traditional patrol that was made in Kansas City from October 1, 1972, to September 30, 1973.⁹⁴ The purpose of the experiment was to measure the impact of routine patrol on the incidence of crime and the public's fear of crime.

ii. Experiment description. Three levels of routine preventive patrol were used in experimental areas of the city.

Area 1, termed "reactive," received no preventive patrol. Officers, comprised of five beats, entered the area only in response to citizen calls for assistance. This reduced police visibility in that area.

Area 2, termed "proactive," received two to three times the usual level of police visibility. This area was comprised of five beats.

Area 3, termed "control," received normal levels of preventive patrols. This area comprised five beats and was maintained at the usual level of one car per beat.

The experimental design called for the testing of five hypotheses:

1. Crime, as reflected by victimization surveys and reported crime data, would not vary by type of patrol
2. Citizen perception of police service would not vary by type of patrol
3. Citizen fear and behavior as a result of fear would not vary by type of patrol
4. Police response time and citizen satisfaction with response time would vary by experimental area; and
5. Traffic accidents would increase in the re-active beats

The fifteen beats in the experimental area were matched on the basis of crime data, number of calls for service, ethnic composition, median income and transiency of population.

iii. Objective and criteria. The data sources used to obtain measures of effectiveness to test the hypotheses were as follows:

- . Community Survey, based on a before and after paradigm, to measure victimization, attitudes and fear
- . Commercial Survey, to measure victimization, perceptions and satisfaction with services in both time periods
- . Encounter Survey, to measure the response of citizens who had had contact with the police
- . Participant Observer Transaction Recordings, to measure police-citizen interactions

- . Reported Crime Rates to measure before and after crime rates
- . Traffic Data, to measure noninjury and injury/fatality incidence
- . Arrest data
- . Response Time Survey, to measure citizens' reaction to the response time of police patrol units
- . Spillover Effect, to measure correlations between contiguous beats

iv. Conclusions. Some of the major findings

were:

- . Victimization Survey indicated no significant differences in crime among the 15 beats
- . Reported crime showed only one significant difference in 51 comparisons among beats
- . Rates of reporting crime showed only five significant differences in 48 comparisons
- . Arrest data showed no significant differences in 27 comparisons
- . Citizen fear of crime was not different among beats nor were citizen protective measures different among beats
- . Business protective measures were not different among beats
- . Citizen and businessmen's attitudes towards police were not significantly different among beats
- . Police-citizen encounters and behavior of officers were not significantly different among beats
- . Response time was not significantly different
- . Traffic accidents were not significantly different among beats

The experiment was a rigorous demonstration of evaluation skill and of the lack of effect of several different levels of police visibility.

The two illustrations of experimental design and evaluation by no means exhaust the subject, but provide interesting introductory information. In addition to the references cited previously, the reader is referred to the works of Caporeso and Ross⁹⁵ and Blumstein and his colleagues.^{96,97}

F. Cost of Evaluation

The two types of analysis just described were very expensive, involving expenditures up to \$1 million. Such a large expenditure is not always necessary for providing useful information on specialized patrol.

A well-conceived example of a low-cost analysis is provided by a pilot study conducted in England on the effectiveness of plainclothes and uniformed foot patrol.⁹⁸ This experiment lasted one week and involved a control area and an experimental area. The experimental area was policed by single officers in plainclothes; one was assigned to each of four beats on foot. The control area was policed by uniformed personnel on foot.

The statistics gathered were:

- . Number of indictable crimes
- . Arrest numbers by type of offense
- . Number of nonindictable crimes
- . Traffic accidents
- . Traffic offenses

Statistics were gathered for two weeks prior to the experiment and two weeks afterwards on the two areas under analysis as well as the entire city. The conclusion, based on the

results of the experiment, was that the division containing the experimental area showed a statistically significant decrease in preventable crime in the experimental week, while no other division showed any deviations. The crime rate went back to normal in the week following the experiment.

In addition to gathering information on the success or failure of the operation, a great deal of information was gathered on the operational, administrative and recording aspects of the new specialized patrol.

The validity of the results of experiments is always open to question. The validation of the particular experiment just described is open to question because of its short duration. It cannot be said that the results are lasting or tend to be influenced by the Hawthorne effect. The small size of the experiment raises questions of validity. One could list many possibilities for error, but the fact that information on specialized patrol can be gained at little cost is important.

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