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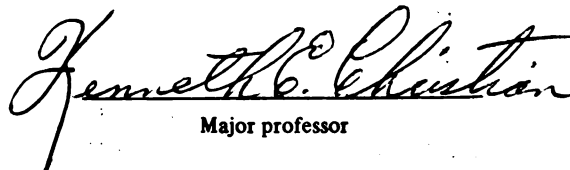
"While on Routine Patrol ...": A Study
of Police Use of Uncommitted Patrol Time

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"WHILE ON ROUTINE PATROL . . .": A STUDY OF
POLICE USE OF UNCOMMITTED PATROL TIME

By

Gary W. Cordner

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ABSTRACT

"WHILE ON ROUTINE PATROL . . .": A STUDY OF
POLICE USE OF UNCOMMITTED PATROL TIME

By

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The primary purpose of the study was to determine how police officers use their free patrol time. Numerous studies have examined the call-for-service aspect of patrol workload, but few have focused on the utilization of uncommitted time.

The use of free patrol time was studied using both observations and a survey in one medium-sized city, Lansing, Michigan. Data from the observations and survey were used to investigate free patrol time allocation and task emphasis within the framework of six research questions.

The observations revealed that 39% of free patrol time in Lansing was devoted to patrolling, 39% to taking breaks, and 22% to handling self-initiated tasks and meeting other officers. Patrol time use and task emphasis varied considerably by time of day. Of the independent variables tested, squad assignment and years of police experience accounted for the most variance in reported patrol time use.

Dedicated to my Mother,

Evelyn W. Cordner

and to the memory of my Father,

Charles H. Cordner

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CHAPTER I

THE PROBLEM

Introduction

This research is focused on the behavior of police officers. More specifically, the manner in which police patrol officers use their uncommitted time is examined.

Uncommitted patrol time (also referred to as free patrol time) is that portion of a police patrol officer's time that is not accounted for by specific duties assigned by the police command and control staff or requested directly by the public. Free patrol time does not include time spent "handling" calls for service, administrative details, or logistical necessities (such as refueling the police car). What is included within the realm of uncommitted patrol time is that time during which officers are essentially free to choose what to do.

There are, of course, constraints upon the use of free patrol time. Patrol officers are ordinarily assigned to a patrol area, or beat, within which they must remain, unless directed elsewhere. What they may do within the beat is restricted by rules and regulations that prohibit behaviors such as sleeping, drinking alcoholic beverages, or turning off the police radio. Free patrol behavior is also constrained by the law, which limits the means

available to the police for intruding or intervening in people's lives. Finally, the amount and duration of free patrol time is dependent on the extent of the specific duties that arise and must be "handled," as free patrol time basically fills the gaps between these calls-for-service from the public and administratively assigned details.

Despite the constraints upon the use of uncommitted patrol time noted above, patrol officers are left with a great deal of freedom in deciding what to do while not answering calls, performing administrative details, or disposing of logistical necessities. The guidance provided patrol officers with regard to the use of uncommitted patrol time is primarily negative; officers are told of boundaries they cannot cross, of time periods during which they are not free to choose their behaviors, and of behaviors they may not exhibit.¹ Little if any positive guidance, however, is provided to inform officers what to do during their free patrol time. In the phraseology of police work, how officers use their free patrol time is "up to their own discretion."

The magnitude of uncommitted patrol time underscores its importance. The amount of patrol time that is uncommitted or free certainly varies by jurisdiction, but seems to average to about one-half.² That is, police patrol officers spend about 50% of their time on free patrol. Given that the patrol function accounts for the majority of police personnel in most jurisdictions,³ free patrol time clearly represents an important and costly expenditure for police agencies and local governments.

Until recently, the practice of granting officers vast freedom and providing them little positive guidance concerning the use of uncommitted patrol time was not seriously questioned. The 1967 report of the President's Commission on Law Enforcement and Administration of Justice, however, did begin to raise the issue.

Preventive patrol--the continued scrutiny of the community by visible and mobile policemen--is universally thought of as the best method of controlling crime that is available to the police. However, the most effective way of deploying and employing a department's patrol force is a subject about which deplorably little is known.⁴

Preventive patrol (also called random patrol or routine patrol) is the activity most often identified as what officers do during their free patrol time. Though nowhere precisely defined or described, conventional wisdom has assumed that preventive police patrol prevents crimes by giving the impression of police omnipresence, and leads to the interception of crimes in progress. A 1971 Rand report argued, however, that

Between one-third and one-half of all patrol time is devoted to preventive patrol and the police cannot specify with confidence what effect it has on crime and criminal apprehensions. In such a situation, police administrators cannot know if resources are being allocated effectively. Analytical and experimental studies are needed and could result in very substantial changes and improvement in the use of police manpower.⁵

The Kansas City Preventive Patrol Experiment was just such a study.⁶ Reported in 1974, this experiment compared three groups of five patrol beats each--one with no preventive patrol, one with normal levels of preventive patrol, and one with additional preventive patrol. The results of the experiment indicated that in

terms of crime rates, response times to calls, citizen satisfaction and feelings of security, and other indicators, the amount of preventive patrol made no difference.

As a result of the Kansas City experiment, some police departments are considering either eliminating or dramatically altering preventive patrol. One suggested technique is the replacement of traditional preventive patrol (and thus free patrol time) with some sort of directed, planned activity.⁷ Another approach is the upgrading of traditional patrol with the provision of crime and community information to patrol officers for their use as they deem appropriate.⁸ In general, the trend is toward regarding free patrol time as a valuable resource that can be put to better use than through traditional preventive patrol.⁹ Departments still using traditional patrol are increasingly being asked to justify the activity, and these agencies are finding it difficult to do so.

In the recent rush of research, exposition, and new programs, however, an important factor in traditional preventive patrol has been neglected. As noted earlier, preventive patrol is not a clearly defined activity, and patrol officers are afforded great latitude in the use of their free or uncommitted time. Within the context of traditional preventive patrol, what do officers do during their free patrol time? How do they spend that one-half of their time that is uncommitted? The answers are not well known. Such information is needed, though, for evaluating the effectiveness of traditional patrol and competing strategies.

Purpose

The primary purpose of this study is to determine how police officers use their uncommitted, or free, patrol time. Following from this basic descriptive task, the relationship of such variables as organizational assignment, education, and length of police experience to the manner in which different officers patrol is examined. Finally, the characterization of routine patrol developed from this study is considered within the context of other analyses of the nature of police work.

Very little detailed research has been conducted concerning what police officers actually do while patrolling. A recent report has noted that "although police publications and patrol handbooks have extolled the virtue of visible patrol in preventing crime and deterring and apprehending criminals, scant attention has been paid to the specific tactics an officer might use while patrolling."¹⁰ This thesis attempts to satisfy some of the need for information about how police officers actually patrol.

Research Questions

Because this study is exploratory in nature, with little previous research on which to rely, general research questions are utilized, rather than detailed hypotheses. The research questions guiding the study are listed below, along with a brief discussion of the rationale underlying each question.

1. How do police patrol officers spend their uncommitted, or free, patrol time?

This question identifies the basic descriptive purpose of the study. About one-half of patrol time is free, and very little research has examined how police officers use that time. For this study, information will be collected concerning police allocation of free patrol time, including activities undertaken, activity duration, and speed, roadway, and location of patrolling. Information will also be collected concerning the reported emphasis given to various tasks during free patrol time.

2. Does the use of free patrol time vary by time of day?

Police patrol work is a 24-hour-a-day operation, and the use of free patrol time may not be the same at different times of the day. Patrol work is performed in the community, and patterns of activity in the community certainly vary by time of day. For example, the use of the streets and other public areas at 5 a.m. is not the same as at 5 p.m. Differences such as this in the behavior of the public would likely be reflected in differences in police use of free patrol time. An obvious illustration is that police officers might spend some portion of their free patrol time at 5 a.m. checking the doors and windows of business establishments, since at that time they are closed and susceptible to burglary. At 5 p.m., however, when the businesses are open, the same sort of security checks would not be performed by police officers during their free patrol time. General variation between shifts in police

activity and police use of patrol time has been noted by Rubinstein.¹¹ He found in Philadelphia that the daytime shift was characterized by report-taking and administrative details, the evening shift by disputes and crimes in progress, and the night shift by considerable free time, much of which was spent on nonpolice-related activities.

3. Does the use of free patrol time vary among organizational sub-units (patrol squads)?

Patrol officers are ordinarily assigned to squads, and the squads remain intact as they rotate shifts. The use of free patrol time might differ, then, between squads, because of characteristics of the officers comprising them, because of a squad socialization process, because of the influence of squad supervisors and commanders, or because of a combination of these factors. A study of one police department found that opinions about a new directed patrol strategy differed substantially between squads, even after such personal characteristics as age, education, and experience were statistically controlled.¹² In a recent article, Guyot has suggested that many police studies have been compromised by their failure to address intra-organizational differences between units, and she argues that a police department is not a "sack of potatoes."¹³ Squad assignment seems likely to be an important factor in police use of free patrol time.

4. What is the relationship between years of schooling and police use of free patrol time?

In 1967 the President's Crime Commission recommended that police officers be increasingly college-educated,¹⁴ and in the

following decade the average educational attainment of police officers rose considerably.¹⁵ The consequences of this change in the composition of police departments have not been clear, and the desirability of college education for police officers is still loudly disputed. In general, however, it seems important to consider educational attainment as a variable possibly influencing police behavior and patrol time utilization. A large number of studies have been conducted using police officer educational attainment as a variable, with mixed and inconclusive results. For a review of these studies and a report of research that found behavioral differences between college-educated and non-college police officers, see Christian (1976).¹⁶

5. What is the relationship between field of college study and police use of free patrol time?

In addition to considering the duration of the educational experience, this study also includes information concerning police officers' major fields of college study. Several authors have emphasized the complexity of the educational variable, and the need to include more than simply years of schooling in any analysis of the effect of education on policing.¹⁷ The nature of the subject matter studied in college is one such additional dimension of the educational variable.

6. What is the relationship between years of police experience and police use of free patrol time?

The importance of years of police experience was demonstrated in 1967 by Niederhoffer in his study of police cynicism.¹⁸

Among his findings was one that police officer cynicism increased until officers had about eight years of experience, after which cynicism decreased slightly and then leveled off. In his study of police patrol work, Rubinstein found that officers learn to patrol on the job, and that older officers have more knowledge of their beats and clientele than do younger officers.¹⁹ In another study, years of police experience was found to have a strong relationship with opinions about the effectiveness of a directed patrol strategy (more experienced officers credited the strategy with less apprehension and crime prevention effectiveness).²⁰ Although these studies pertain more to police attitudes and knowledge than to actual behavior, they suggest that years of experience may be an important variable with respect to police use of free patrol time.

General Foundation

This study is based upon three primary assumptions, which can be stated as follows:

1. Police officers, in the general performance of their duties, exercise broad discretion.
2. A substantial segment of police patrol time is uncommitted.
3. Police officers are granted considerable freedom in determining how to use uncommitted patrol time.

The general proposition that police work is discretion-laden is now widely accepted. The President's Commission reported in 1967 that

. . . law enforcement policy is made by the policeman. For policemen cannot and do not arrest all the offenders they encounter. It is doubtful that they arrest most of

them. A criminal code, in practice, is not a set of specific instructions to policemen but a more or less rough map of the territory in which policemen work. How an individual policeman moves around that territory depends largely on his personal discretion.²¹

Similarly, a report on policing issued in 1972 by the American Bar Association stated that "the nature of the responsibilities currently placed upon the police requires that the police exercise a great deal of discretion."²² And the National Advisory Commission on Criminal Justice Standards and Goals concluded in 1973 that "the police in the United States exercise considerable discretion."²³ These reports were based upon or have been supported by a large body of literature that agrees with the conclusion that the police in America exercise broad discretion.²⁴

The fact that the police exercise discretion essentially means that they are granted the authority to make choices, and that options are available from which to choose. Much of the discussion concerning police discretion has centered on the decision to arrest, but police decisions concerning manpower allocation and distribution, strategies and tactics, methods of suspect processing, and many other matters are also discretionary.

How to use free patrol time is one such discretionary choice presented to police officers. As noted earlier, approximately 50% of patrol time is uncommitted. Also, organizational direction provided patrol officers is more in the form of prohibitions than positive guidance. Other than being warned against contravening a long list of rules and regulations, officers are left on their own to figure out how to patrol. One recent survey found that "in the

typical department, officers are given total discretion with regard to how they use preventive patrol time."²⁵

The general foundation for this study, then, is that police patrol work is a highly individualized and discretionary activity that provides its practitioners with the opportunity for considerable self-direction. The choices made by officers, as reflected by how they choose to spend their free patrol time, are the subject of the study.

Overview

In the next chapter a review of the literature is presented. Because little research has been directed at the specific issue under consideration in this thesis (police use of free patrol time), the literature review ranges across several closely related topics pertinent to the study. These include the general police patrol literature, analyses of the nature of police work, recent police patrol research, and emergent police patrol strategies.

The design of the study is elaborated in Chapter III. In addition to the description of the methodology used, a number of research issues relating to the study are discussed.

In Chapter IV the analysis of the results of the study is presented. And in Chapter V, conclusions, recommendations, and proposals for future research are offered.

FOOTNOTES--CHAPTER I

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²J. F. Elliott, Interception Patrol (Springfield, IL: Charles C Thomas, 1973), p. 6; George L. Kelling, Tony Pate, Duane Dieckman, and Charles E. Brown, The Kansas City Preventive Patrol Experiment: A Technical Report (Washington, D.C.: Police Foundation, 1974), p. 500.

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⁹Integrated Criminal Apprehension Program: Program Implementation Guide (Washington, D.C.: Law Enforcement Assistance Administration, 1978).

¹⁰Gay et al., Improving Patrol Productivity: Routine Patrol, p. 11.

¹¹Jonathan Rubinstein, City Police (New York: Ballantine, 1973), pp. 63-68.

¹²Cordner and Lund, Patrol Emphasis Project: Final Evaluation Report, p. 48.

¹³Dorothy Guyot, "Police Departments Under Social Science Scrutiny," Journal of Criminal Justice 5, 2 (Summer 1977): 105-118.

¹⁴President's Commission, The Challenge of Crime in a Free Society.

¹⁵Larry T. Hoover, Police Educational Characteristics and Curricula (Washington, D.C.: Government Printing Office, 1975).

¹⁶Kenneth E. Christian, "A Comparison of the Behavioral Styles of College-Educated and Non-College Police Officers," Ph.D. dissertation, Michigan State University, 1976.

¹⁷Larry T. Hoover, "Evaluating the Impact of Education Upon Police Performance," paper presented to the Academy of Criminal Justice Sciences, March 1976; John K. Hudzik, "College Education for Police: Problems in Measuring Component and Extraneous Variables," Journal of Criminal Justice 6, 1 (Spring 1978): 69-81; and Charles R. Swanson, "An Uneasy Look at College Education and the Police Organization," Journal of Criminal Justice 5, 4 (Winter 1977): 311-320.

¹⁸Arthur Niederhoffer, Behind the Shield: The Police in Urban Society (New York: Anchor, 1967), p. 239.

¹⁹Rubinstein, City Police.

²⁰Cordner and Lund, Patrol Emphasis Project: Final Evaluation Report, p. 48.

²¹President's Commission, The Challenge of Crime in a Free Society, p. 75.

²²American Bar Association, The Urban Police Function, p. 116.

²³National Advisory Commission on Criminal Justice Standards and Goals, Police (Washington, D.C.: Government Printing Office, 1973), p. 22.

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²⁵Gay et al., Improving Patrol Productivity: Routine Patrol, p. 5.

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter the literature pertaining to five closely related topics is reviewed. The topics are general patrol, the nature of police work, patrol effectiveness research, emergent patrol strategies, and police use of free patrol time. The paucity of material relating to the final topic necessitates inclusion of the previous four.

General Patrol

Webster's Dictionary defines patrol as "the action of traversing a district or beat or of going the rounds along a chain of guards for the purpose of observation or of the maintenance of security."²⁶ This definition comfortably includes the activity referred to as preventive, routine, or random patrol in this study.²⁷ In the general police literature, however, patrol is often meant to include all of the workload of patrol officers. In this sense patrol means preventive patrol, performing administrative details, and handling calls for service. This section of the literature review is limited to material concerning preventive, routine, random patrol.

The basic purposes of traditional patrol are described in the following two statements.

To patrol an assigned beat, observing people, structures, lots, fields, and vehicles, meanwhile apprehending any wrongdoers sighted and assuring that the public peace is preserved.²⁸

The purpose of patrol is to distribute the police in sufficient numbers and geographical spread to eliminate or reduce the opportunity for crime and to increase the likelihood that the police can apprehend and arrest an offender when a crime does take place.²⁹

Essentially, patrol is designed to deter crime by giving the impression of police omnipresence, or at least by raising the possibility that a police officer could be just around every corner. Also, patrol is expected to lead to the interception of crimes in progress, and to the discovery of other indications of public disorder.

In order to pursue these purposes, patrol officers are expected to move about their assigned areas (beats, districts, patrol areas) while watching for suspicious or unusual circumstances.

Chapman has stated that effective patrol

. . . will require that uniformed personnel aggressively patrol every cranny of their jurisdiction seeking the unusual, the out-of-place, the peculiar. Patrol work requires that a man develop a high index of healthy skepticism and yet be able to identify and comprehend plausible explanations readily. This is a difficult job.³⁰

Some patrol literature of a training nature does contain suggestions concerning how to seek the unusual, give the impression of omnipresence, and develop healthy skepticism. Adams recommends getting out of the car frequently, driving along all streets in the beat, making frequent turns, and generally driving slowly.³¹ Gilston and Podell stress getting to know the beat, including activity

variations by location and time of day.³² Shanahan, along with most other authors, cautions against developing predictable habits and patterns, and recommends a combination of conspicuous and inconspicuous patrol.³³

The most detailed set of instructions available for patrol officers was presented by Richard L. Holcomb some 30 years ago.³⁴ Among his suggestions for effective patrolling were the following.

- do not follow an obvious schedule
- back-track
- step into doorways
- know the patrol area (including protective devices in use, location of valuable stock, etc.)
- get acquainted with the public
- pay close attention to motor vehicles
- look up, observe above the first floor
- look closely at doors and windows
- observe individuals
- look for people paying too much attention to you, and for people avoiding you
- note persons who are loitering

With the exception of the Holcomb book, most patrol texts are devoted much more extensively to the handling of calls and self-initiated activities than to actual patrolling. This is due, probably, to the common sense nature of police patrol. Instructions about how to patrol are largely guides to walking, driving, and observing, and anyone old enough to be a police officer presumably already has considerable experience at such activities.

The shortage of literature concerning how to patrol is reflected in police training. While police recruits may receive substantial instruction in the law, defensive tactics, human relations, social science, or what have you, patrol is largely learned on the job. James Q. Wilson, among others, has noted that

police work in general is learned via apprenticeship,³⁵ and graduates of police training academies are frequently told by their more experienced colleagues to "forget all that stuff you learned in school."³⁶ Jonathan Rubinstein found in Philadelphia that

Each policeman must teach himself to see what he is looking at, just as he must teach himself to patrol. Older men help him out occasionally with hints and tips, but the skills he acquires are discovered by accident, by example, and by making mistakes. It is not a painless learning process, either for the policeman or for the people he encounters.³⁷

Rubinstein further points out that patrol car driving, beat geography, and other basic matters are learned on the job, and are largely self-taught.

Patrol, then, involves police officers moving about assigned areas, in both conspicuous and inconspicuous fashion, looking for problems needing their attention. The activity also presumably deters crime, and prepares officers to respond to citizen requests. It is learned primarily on the job, rather than through an academy training process. Chapman optimistically stated the rationale for police patrol in 1964:

Patrol has always been patrol. It will always be patrol. The concept and objectives of patrol will remain fundamentally static because there is no more effective machinery for achieving the goals and objectives of law enforcement than through the medium of uniformed patrol.³⁸

The Nature of Police Work

The primary purpose of this study is to determine how police officers spend their free patrol time. One use to which that determination will be put is a more accurate and complete characterization

of the nature of police patrol work. A number of studies have previously analyzed the work done by police departments, and primarily by patrol, in order to make statements about the crime-related, or law enforcement-related, nature of policing.

A study reported in 1965 by Cumming, Cumming, and Edell examined the day-to-day activities of policemen as they related to social integration and social control.³⁹ Incoming calls to the headquarters of a metropolitan police agency were categorized, as well as the police response to the calls. The results of the analysis are summarized in Table 2.1. It should be noted that calls for support were the focus of the study, so that calls about things (traffic violations, losses or thefts, fallen power lines, etc.) were largely ignored. Also, and this is a recurring characteristic of these studies, the basis of the analysis was calls coming into the police complaint desk, rather than the complete workload of patrol officers. It should be recognized from the outset that police-initiated activities and routine patrol were not examined. The authors reached the following conclusions from their study:

More than one-half of the calls coming routinely to the police complaint desk, and perhaps to detectives, appear to involve calls for help and some form of support for personal or interpersonal problems. To about three-quarters of these appeals, a car is sent. When the policeman reaches the scene, the data suggest that he either guides the complainant to someone who can solve his problem or tries to solve it himself. To do this, he must often provide support, either by friendly sympathy, by feeding authoritative information into the troubled situation, or by helping consensual resolution to take place.⁴⁰

TABLE 2.1.--Classification and Disposition of Calls to the
Complaint Desk of a Metropolitan Police Department
During 82 Selected Hours in June and July 1961.

Type of Call	Number of Calls	Percent of Total	Percent Car Sent
TOTAL	801	100.0	
Calls included in analysis	652	81.4	
1. Calls about "things"	255	31.8	
2. Calls for support	397	49.6	76.8
Persistent personal problems	230	28.7	79.1
a. Health services	81	10.1	86.4
b. Children's problems	83	10.4	85.5
c. Incapacitated people	33	4.1	75.8
d. Nuisances	33	4.1	48.5
Periodic personal problems	167	20.9	73.7
a. Disputes	63	7.9	50.8
b. Violence	43	5.4	95.3
c. Protection	29	3.6	79.3
d. Missing persons	11	1.4	81.8
e. Youth's behavior	21	2.6	85.7
Calls excluded from analysis	149	18.6	
Information only	33	4.1	
Not police business	28	3.5	
Feedback calls	88	11.0	

Adapted from Elaine Cumming, Ian Cumming, and Laura Edell,
"Policeman as Philosopher, Guide and Friend," Social Problems
12 (1965).

James Q. Wilson used different categories in his analysis of police activity in Syracuse, New York.⁴¹ Wilson based his study on citizen complaints radioed to patrol vehicles, which is comparable to the "percent car sent" aspect of the study by Cumming, Cumming, and Edell. The complaints were grouped into the categories of information gathering, service, order maintenance, and law enforcement. The information gathering category included calls for which the police function was primarily clerical, such as reports of crimes with no suspects. Calls for miscellaneous services that could be and often are provided by other agencies were included in the service category. The order maintenance category consisted of calls involving disputes of various kinds, and calls that potentially afforded opportunities for interrupting crimes in progress or investigating suspicious circumstances were classified as law enforcement. The results of the analysis, including examples of the kinds of calls encountered, are shown in Table 2.2.

Wilson concluded from his analysis that the police role was defined by order maintenance, and that "handling situations" rather than "enforcing the law" best describes policing.⁴² He noted that order maintenance calls are strictly speaking crime- and enforcement-related, and that patrol officers frequently make arrests as a result of such calls, but argued that the principal frame of reference brought to order maintenance calls by patrol officers is one of situation-handling and dispute-resolution. It should be noted that numbers of calls from citizens, rather than time expended,

TABLE 2.2.--Citizen Complaints Radioed to Patrol Vehicles,
Syracuse Police Department, June 3-9, 1966 (based on
a one-fifth sample of a week's calls).

Calls	Number	Percent
Information Gathering	69	22.1
Book and check	2	
Get a report	67	
Service	117	37.5
Accidents, illnesses, ambulance calls	42	
Animals	8	
Assist a person	1	
Drunk person	8	
Escort vehicle	3	
Fire, power line, or tree down	26	
Lost or found person or property	23	
Property damage	6	
Order Maintenance	94	30.1
Gang disturbance	50	
Family trouble	23	
Assault, fight	9	
Investigation	8	
Neighbor trouble	4	
Law Enforcement	32	10.3
Burglary in progress	9	
Check a car	5	
Open door, window	8	
Prowler	6	
Make an arrest	4	
TOTALS	312	100.0

Adapted from James Q. Wilson, Varieties of Police Behavior: The Management of Law and Order in Eight Communities (Cambridge, Mass.: Harvard University, 1968), p. 18.

were used as the basis of the analysis, and that aspects of patrol workload other than calls were not examined.

Another study of citizen calls to the police was reported by Bercal in 1970.⁴³ He reported, first of all, that in Detroit, New York, and St. Louis the portions of calls handled without dispatching a patrol unit were 36%, 40%, and 21%, respectively. Bercal then defined "crime" to include all Part I and Part II offenses, and found that in Detroit only 16% of all citizen calls to the police were crime-related. He concluded that "as these data indicate, to study the police in the context of a para-military organization primarily concerned with the control and prevention of crime focuses attention on but a small portion of police work."⁴⁴ Bercal's conclusion seriously misrepresents his data, however. A proper statement would have been that crime-related matters comprise a relatively small portion of citizen calls to the police. But citizen calls to the police do not translate directly into police workload, as Bercal's own data clearly indicate. Between one-fifth and two-fifths of citizen calls do not result in the dispatching of a patrol unit, and thus do not become part of patrol workload. These calls represent some work for the police communications unit, but not for any other elements of the agency.

In Bercal's article, other reported data vividly demonstrate the danger of characterizing police work solely on the basis of citizen calls. The nature of calls for which patrol units were dispatched in Detroit and St. Louis was analyzed, and the results are presented in Table 2.3. The figures for runs responded to by

TABLE 2.3.--Breakdown of Types of Runs Responded to by the Dispatch of a Patrol in Two Cities.

Category	Percent of Calls Dispatched	
	Detroit	St. Louis
Predatory and Illegal Service Crimes Crime, prowler, alarms, recovery of property	38.7	51.0
Public Disorder Family trouble, parking, missing person	34.8	27.2
Crimes of Negligence Accidents - vehicles	12.0	9.6
Service Health, safety	14.5	12.2

Adapted from Thomas Bercal, "Calls for Police Assistance,"
American Behavioral Scientist 13 (1970).

patrol units are certainly more representative of patrol workload than figures for all calls for citizens and, as can be seen, the crime-related portion of the workload is much greater than suggested by the earlier 16% figure. Bercal does not define his categories in any greater detail than indicated in Table 2.3, and he inexplicably interprets the table as evidence that the majority of runs are noncrime-related. He also fails to address the issues of time allocation and patrol workload other than responding to citizen calls.

A 1971 study reported a finding almost identical to Bercal's analysis of citizen calls to the police in Detroit. Based on calls to the Chicago Police Department over a 28-day period, Reiss reported that 83% of the workload was noncriminal in nature.⁴⁵

The most recent study of calls to a police department from citizens reported findings largely consistent with its predecessors, although the law enforcement-related portion of the workload was somewhat higher than previously found.⁴⁶ Lilly analyzed a four-month sample of calls to the Newport, Kentucky Police Department (18,012 calls were included). His categorization of the calls is summarized in Table 2.4.

TABLE 2.4.--Classification of Calls to the Newport, Kentucky Police Department.

Category	Percent
Information requests	60.0
Traffic matters	12.9
Juvenile problems	5.4
Protection and assistance	3.9
Nuisance calls	3.7
Violence	2.8
Family trouble	2.8
Health services	2.4
Prowlers	2.3
Thefts	1.9
Unclassifiable	1.0
Missing persons	0.9
Vice	0.1

Adapted from J. Robert Lilly, "What Are the Police Now Doing?" Journal of Police Science and Administration 6, 1 (March 1978), p. 56.

Lilly further reported that police units were dispatched in response to 32% of the calls; he classified all of these as law enforcement-related. That is, the dispatching of a patrol unit in response to a citizen call was used by Lilly as the definition of law enforcement-relatedness. This is an example of the kinds of definitional problems involved in characterizing various police tasks. Wilson, in his Syracuse study, dealt only with calls in response to which a police unit was dispatched, and used a law enforcement category in his classification. Whereas Lilly classified 100% of dispatches as law enforcement-related, however, Wilson categorized only 10.3% of dispatches as pertaining to law enforcement.

The Cumming, Wilson, Bercal, and Lilly studies all shared two fundamental weaknesses in addition to definitional ambiguities. Each study was based on numbers of calls, rather than time allocated to the calls, which serves in general to over-emphasize minor matters at the expense of serious ones. In this kind of frequency analysis, a barking dog call and a murder call each count equally, despite the fact that the latter would consume considerably more patrol time than the former. Also, the four studies dealt only with patrol workload originating from citizen calls to the police, and thus did not incorporate tasks initiated by police officers, administrative details, general patrolling, and other elements of patrol work in their analyses. In essence, the studies sought to analyze the nature of patrol work without examining approximately one-half of patrol time. The two basic shortcomings of these studies should be

kept in mind when interpreting the findings and drawing conclusions from them about the nature of patrol work.

The first analysis of police workload to incorporate both police-initiated activities and time spent performing different tasks was published by Webster in 1970.⁴⁷ This study utilized the dispatch records (which included police-initiated activity) of an unidentified city of 400,000 population. All recorded tasks for a 54-week period were included in the analysis. In all, almost 600,000 "assignments" were included, consuming slightly more than 300,000 hours of patrol officer time. Webster's findings are summarized in Table 2.5.

TABLE 2.5.--Analysis of Patrol Tasks and Time Consumption.

	Frequency %	Consumed Time %
Crimes against Persons	2.82	2.96
Crimes against Property	13.76	14.82
Traffic	7.16	9.20
On-View (Police-Initiated)	19.68	9.10
Social Service	17.27	13.70
Administration	39.28	50.19

Adapted from John A. Webster, "Police Task and Time Study," The Journal of Criminal Law, Criminology and Police Science 61 (1970), p. 95.

The feature of Table 2.5 that distinguishes it from the previous analyses is the category of administration, which accounts for 50% of the consumed patrol time. Within this category Webster included such activities as "coffee breaks, meals, community relations, taking reports, running errands, attending court, serving warrants, and performing as police technicians."⁴⁸ Although one could certainly quarrel with some of the tasks included within the category, it should be recognized that much of this aspect of police patrol workload was ignored by the previously cited studies.

Webster reaches an apparently incorrect conclusion based on his data. From the figures shown in Table 2.5, he states that patrol officers spend 50% of their time on administrative tasks. In fact, the correct conclusion would be that, of patrol time consumed by recorded assignments, patrol officers spend 50% on administrative tasks. The distinction to be made is that Webster's data did not include free patrol time during which officers were not engaged in specific recorded tasks. From manpower figures presented in the article, it is possible to estimate the portion of patrol time not accounted for by the study.⁴⁹ A very conservative estimate (almost certainly an under-estimate) is that 28% of total patrol time was ignored. This figure was computed using a "time-off factor" of 2.0 to account for days off, sick leave, vacation time, training time, and other kinds of time away from the job. As the average time-off factor is probably closer to about 1.7, the computation provides a cautious estimate.

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Patrol time was accounted for, though only minimally described, in a 1972 article by O'Neill and Bloom.⁵⁰ In this study data was collected on police workload via a detailed activity report form that a sample of patrol officers completed during their tours of duty. All of the officers sampled worked for police departments in California serving cities in the 25,000 - 100,000 population range. A 1968 study included 17 such cities, while a 1970 study was limited to one city. A summary of the findings of the two studies is presented in Table 2.6.

TABLE 2.6.-- Analysis of Patrol Activity Reports from 18 California Cities.

	1968 Study Percent	1970 Study Percent
Administrative Duties	18.0	14.8
Non-Duty Activities	10.6	11.7
Traffic	12.8	11.2
Part I and Part II Crimes	4.7	4.9
Secondary Police Activities	13.2	21.5
Patrol Activities	37.3	33.7
General Services to the Public	3.4	2.8

Adapted from Michael E. O'Neill and Carlton J. Bloom, "The Field Officer: Is He Really Fighting Crime?" The Police Chief 39 (February 1972), p. 32.

The activity categories that were used in the O'Neill and Bloom study were not defined in the article, but sub-categories were listed that illustrate the classification system. The administrative duties category included report writing, squad meetings and roll calls, equipment checking and service, and miscellaneous tasks performed in headquarters by field officers. Activities such as coffee breaks, meals, and personal relief were included in the non-duty category. Traffic-related activities were those involving citations, accidents, intersection control, and drunk driving. The Part I and Part II crimes category included those offenses as defined in the Uniform Crime Reports, with the exception of intoxication and disturbance of the peace. These latter two offenses, along with activities relating to field interrogations and juvenile problems, were included in the secondary police activities category. The patrol activities category consisted of inspectional and roving sub-categories. Finally, such matters as lost persons, transportation problems, messenger and escort services, and other assistance to individuals were classified as general services to the public.

As can be seen in Table 2.6, patrol activities accounted for 37.3% and 33.7% of patrol time in the 1968 and 1970 studies, respectively. This is the general element of patrol time overlooked by Webster, as well as others. O'Neill and Bloom reported that, for the 1968 study, 71.7% of the patrol activities time was spent "roving," with the remainder being applied to "inspectional" tasks. For the 1970 study, 93.8% of patrol activities time was reportedly spent roving.

A study similar in design to that of O'Neill and Bloom, based on analysis of daily records maintained by patrol officers, was recently conducted within the Hampshire Constabulary in England.⁵¹ Primarily an exploratory study aimed at developing useful categories of police tasks, this effort focused on the activities of nine patrol officers for a four-week period. The categories and findings of the analysis are presented in Table 2.7.

TABLE 2.7.--Distribution of Duty Hours for Patrol Officers of the Hampshire Constabulary.

Activity	Survey Percentages
Station Duties	35
Outside Duties	4
Task Work	25
Response to the public	8.5
Crime	8.7
Road traffic accidents	1.9
Road traffic offenses	4.0
Miscellaneous enquiries	1.6
Preventive Patrol	36

Addapted from B. Miller and A. Weeks, "Police Programme Account," Police Research Bulletin 20 (Autumn, 1972), p. 30.

Using a patrol activity report form largely based on the Hampshire Constabulary study, an expanded workload analysis was conducted in the Bristol Constabulary, also in England.⁵² All police personnel assigned to the organization completed the activity sheets.

The findings from the analysis of patrol officer time for a 280-day period are presented in Table 2.8. The figures are generally comparable to those from the Hampshire Constabulary, with the exception of the percentages for Station/Inside Duties. This difference could easily be attributable to a definitional change or to the small sample size of the Hampshire study. The findings are also roughly comparable to those of O'Neill and Bloom. These studies indicate that preventive patrol time accounts for a substantial portion of the workload, directly crime-related tasks do not, and miscellaneous activities such as administration, abstractions, and non-duty pursuits consume considerable time.

TABLE 2.8.--Duty Summary by Main Task for Patrol Officers of the Bristol Constabulary.

Task	Hours	Percent
Preventive Patrol	3,916.3	43.3
Task Work	2,397.8	26.5
Other Outside Duties	735.9	8.1
Inside Duties	821.4	9.1
Abstractions	1,167.7	12.9

Adapted from P. J. Arkell and R. W. Knight, "The Analysis of a Territorial Division," Police Research Bulletin 25 (Summer 1975), p. 15.

Finally, a study conducted among 74 small police departments in Missouri used yet another method for determining police workload.⁵³ Whereas previous studies had utilized citizen calls to police headquarters, dispatch records, activity records, or special activity reporting forms, for this analysis police officers (serving communities of up to 50,000 population) were asked to list the most frequent complaints received by their departments (multiple responses were permitted). The responses are summarized in Table 2.9. The figures reflect numbers of incidents, rather than time expended, and do not include patrol time or officer-initiated activities.

TABLE 2.9.--Most Frequent Complaints Received by Police Officers in Small Towns.

Complaint	Number	Percent
Traffic	209	25
Public Disturbance	161	19
Family Disturbance	151	18
Stray Dogs	90	11
Juveniles	57	7
Prowlers	57	7
Neighborhood Problems	33	4
Complaints about Officers	7	1
Other	<u>72</u>	<u>8</u>
TOTALS	837	100

Adapted from John F. Galliher, L. Patrick Donovan, and David L. Adams, "Small-Town Police: Troubles, Tasks, and Publics," Journal of Police Science and Administration 3, 1 (March 1975), p. 22.

Despite the wide variety of jurisdictions studied and research methods used, some generalizations can be drawn from the analyses presented in this section. Several of the studies indicated that a considerable portion of citizen calls to the police are resolved without dispatching a patrol unit (Cumming, about 30%; Bercal, 36%, 40%, and 21%; and Lilly, 68%). The studies also suggest that only a relatively small portion of citizen calls to the police are clearly crime-related, while a larger portion pertain to disputes, public disorder, and similar problems. The handling of dispatched calls consumes an important segment of patrol officer time (about 25%-33% in the studies cited above), but leaves an even larger portion of patrol time uncommitted. This uncommitted, or free, patrol time is in turn consumed by administrative, non-duty, officer-initiated, and routine patrol activities.

It is important to be cautious, however, in drawing conclusions beyond those stated above. Many authors in recent years, upon reviewing studies such as the ones discussed in this section, have leaped to conclusions such as, "police work is 85% service related," or "police officers spend 90% of their time dealing with noncriminal matters," or "law enforcement accounts for only 5% of policing." Conclusions such as these do not logically follow from the studies discussed. First, it must be recognized that most of the studies dealt only with calls from citizens, ignoring much other police activity. Second, most of the studies merely counted reported incidents, rather than time consumed per incident. Third, those studies that did use time consumed, and included all specific and

recorded patrol activities, failed to adequately determine what police officers actually did with their free patrol time. Fourth, a host of definitional problems beset any effort to classify police activity. Disorderly conduct is both public disorder and a crime. A family disturbance may be simply a shouting match, but it may also be a crime when the police arrive, or it may become one at a later time. A fatal hit-and-run accident is both a traffic matter and a serious crime. Much of police activity is ambiguous in this fashion, so that studies of police workload are intimately bound to the definitions used, many of which are not clearly stated in the research reports. Finally, a fifth caveat is that these studies focused almost entirely on patrol, so that conclusions from them about the nature of all of policing are not well-grounded.⁵⁴ Detective work, for example, may be quite different from patrol work, in terms of the nature of tasks undertaken and time allocated to them.

Patrol Effectiveness Research

For years, a major assumption underlying police work was that preventive patrol was effective in deterring crime, detecting crimes in progress, and achieving other police objectives. The assumption went untested while police agencies allocated the bulk of their resources to patrol. Only in the recent past has evaluative research been conducted to attempt to measure the effectiveness of traditional patrol.⁵⁵

The primary study of note is the Kansas City Preventive Patrol Experiment.⁵⁶ In this project experimental areas with no patrol, normal patrol, and increased patrol were established for one year. Detailed analysis of a variety of measures indicated no differences in crime rate, response time, or citizen satisfaction among the three areas during the experimental year. As reported by the authors of the study,

The essential finding of the preventive patrol experiment is that decreasing or increasing routine preventive patrol within the range tested in this experiment had no effect on crime, citizen fear of crime, community attitudes toward the police on the delivery of police service, police response time, or traffic accidents. Given the large amount of data collected and the extremely diverse sources used, the evidence is overwhelming.⁵⁷

The experimental areas of the Kansas City study that received extra patrol did so at a level of two to three times their normal patrol strength. As noted, crime, citizen satisfaction, and other indicators did not change as a result of the extra patrol. Common sense would seem to indicate, however, that some level of saturation patrol would begin to have some effect. Several studies have supported this suggestion. A doubling of foot patrols in a New York precinct in 1954 resulted in substantial decreases in serious crime, especially those committed "on the street."⁵⁸ This increase in manpower had permitted the assignment of officers to previously unpatrolled beats, and also allowed the shortening of beat length. In England, a series of small experiments that varied foot patrol strength led to the conclusion that increasing the number of patrol officers assigned to a beat from zero to one

resulted in decreased crime.⁵⁹ Increasing manpower per beat from one to two officers had no effect on crime, while tentative but weak evidence suggested that increases beyond two officers again resulted in some crime decrease. Another study of a New York precinct, conducted in 1966, concluded that a 40% increase in police manpower resulted in 30%-50% decreases in several street crimes.⁶⁰ This study also examined two nearby precincts for comparison purposes, and found that the crime reductions in the experimental precinct were not attributable solely to general crime decreases. A study that analyzed New York subway robberies in relation to increased patrols over an eight-year period also found an effect on crime.⁶¹ In this instance the deployment of substantially more subway patrol officers in the evening hours resulted in a drop and continued low level of subway robbery incidence during the hours of the patrols. After a brief decrease, however, daytime subway robberies increased steadily.

Two recent analyses of saturation patrol in Nashville, Tennessee, using multiple-baseline time-series methods, complete this review of patrol effectiveness research. In 1974, three patrol areas experiencing high burglary incidence during daylight hours were given increased patrols between 8 a.m. and 4 p.m.⁶² The level of saturation raised the number of cars per area from one to between four and eight. During the five weeks of the study, the number of burglary arrests increased, but no changes in the rate of burglary incidence were found. In 1975, four areas with generally high incidence of serious crime were given increased patrol, two during daytime hours and two during evening hours.⁶³ Patrol in all areas

during the saturation times was increased from one to five cars. The results indicated no effect on crime of daytime saturation, but a decrease in crime due to the evening saturation patrols. Upon termination of the evening saturation patrol, crime in the affected areas increased.

Apparently, at least under some conditions, saturation patrolling can have an effect on the incidence of crime. Clearly, though, no agency can afford to double the level of patrol throughout its entire jurisdiction, much less increase it four- or five-fold. This situation, together with the findings of the Kansas City study, has resulted in the current feeling that patrol resources should be managed--that police agencies can find better ways to utilize patrol officers than simply assigning them individually to beats for the purpose of routinely patrolling. Several emergent patrol strategies based on this thinking are discussed in the next section.

Emergent Patrol Strategies

Saturation patrol itself, of course, is one example of a patrol strategy deviating from traditional routine patrol. It involves the deployment of additional patrol units to an area, and ordinarily is based on an analysis of crime patterns in the community.⁶⁴ The tactics employed by the patrol units can be traditional random patrolling within the area, or specialized measures such as surveillance and decoy operations.⁶⁵

A more dramatic departure from routine preventive patrol is split force patrol.⁶⁶ Under this strategy, one portion of the patrol

force is assigned exclusively to handling calls for service, while another exclusively patrols. The patrolling segment of the force is usually deployed on the basis of crime analysis, and its freedom from the call for service workload provides the time for performing the chosen tactics. An added benefit is that this patrolling force is always "free" and thus available to respond to true emergencies, including serious crimes in progress.

Another developing strategy, and one that does not create specialization in the patrol force, is directed patrol. During their free patrol time, officers are assigned duties to perform within their beats, usually in response to crime analysis findings and predictions. The directed duties are usually less than an hour in duration, and involve checking an area in such a way that crimes currently problematic may hopefully be detected or deterred.

In contrast to these types of patrol strategies, more community-oriented approaches to free patrol time usage have also emerged. These strategies call for police officers to use their free patrol time to learn more about their patrol areas and clientele. Officers may be provided with crime and demographic information by the department to aid in the process of learning, but ordinarily the actual use of patrol time for community contact remains officer-initiated, even if agency-encouraged.

All of these emerging strategies are based on the belief that free patrol time can be put to better use than through traditional preventive patrol. Notably absent from the analyses and research upon which these strategies are based, however, has been any detailed

description of how patrol officers actually use their free patrol time. The next section summarizes the little that is presently documented about the activity as performed by police officers on the street.

Use of Free Patrol Time

As part of the massive evaluation of the Kansas City Preventive Patrol Experiment, data was collected concerning police use of uncommitted patrol time. The data was collected by observers who accompanied a sample of patrol officers in each of the experimental areas. The observers found that 60% of patrol time was uncommitted, and classified police use of the time in terms of the following categories.⁶⁷

1. Stationary Police-Related - report-writing, waiting for tows, filling out encounter surveys, surveillances, traffic ordinance enforcement.
2. Stationary Nonpolice-Related - eating, resting, reading nonpolice materials, talking to observer, relief-calls, girl-watching, phone calls, visiting with friends, sleeping, watching movies or sports events.
3. Mobile Police-Related - looking for suspicious cars, people, stolen autos and traffic violations; watching residences and buildings, training new patrol officers.
4. Mobile Nonpolice-Related - driving nonchalantly to relieve boredom, girl-watching; going to eat, to the bank, to the cleaners, or on other personal errands; pleasure riding.
5. Contacting Personnel in Field, Police-Related - talking about crime suspects, calls, policies, procedures, getting or giving information on policies or procedures, exchanging mug shots, getting reports approved, discussing on-going innovations, evidence, courts, complaints.
6. Contacting Personnel in Field, Nonpolice-Related - general talk, hunting, cars, sports, sex, vacations, joke-telling, family life, leisure-time activities.
7. Residual - traveling to and from the station to the district, time in and traveling from court, garage, headquarters, radio repair, to district.

In the report of the experiment, the findings concerning police use of free patrol time are collapsed into four categories by combining several of those noted above. The results are presented in Table 2.10. As can be seen, patrol officers divided their free time vary evenly between the categories of mobile police-related, nonpolice-related, stationary and contacting personnel police-related, and residual. The authors of the study concluded that:

Police officers spent approximately as much time on activities not directly related to police work as they did on police-related mobile patrol. The myth that police officers are continually engaged in "battling" crime, as perpetuated by the media and perhaps even by the police themselves, was not substantiated in the reality of the situation as recorded by the observers.⁶⁸

TABLE 2.10.--Police Officers' Expenditure of Uncommitted Time in Kansas City.

	Percent of Uncommitted Time	Percent of Total Time
Mobile Police-Related	23.54	14.20
Nonpolice-Related	25.47	15.36
Stationary and Contact Personnel, Police-Related	26.01	15.69
Residual	24.98	15.06

Adapted from George L. Kelling, Tony Pate, Duane Dieckman, and Charles E. Brown, The Kansas City Preventive Patrol Experiment: A Technical Report (Washington, D. C.: Police Foundation, 1974).

No other studies were located that analyzed police expenditure of free patrol time. In their study of small town policing in Missouri, however, Galliher, Donovan, and Adams collected survey data on three issues closely related to the use of free patrol time.⁶⁹ The authors asked police officers to list the locations and types or groups of people they watch most carefully while on patrol, and also the reasons for patrolling certain areas more carefully. Presented in Tables 2.11, 2.12, and 2.13 are the responses elicited by their survey on these points. Probably the clearest message presented by the responses is the emphasis upon commercial burglaries given by the patrol officers, which accounts for a large portion of where and who they watch, and why.

TABLE 2.11.--Locations Police Watch Most Carefully in Small Towns.

Locations	Number	Percent
Business and Industrial Areas	247	67
Taverns	27	8
Black Neighborhoods	25	7
Schools	24	7
Residential Areas	8	2
Other	25	7

Adapted from John F. Galliher, L. Patrick Donovan, and David L. Adams, "Small-Town Police: Troubles, Tasks, and Publics," Journal of Police Science and Administration 3, 1 (March 1975), p. 24.

TABLE 2.12.--Types or Groups of People Police Watch Most Carefully in Small Towns.

Types of People	Number	Percent
Known Criminals	82	34
Young People	76	32
Strangers and Suspicious People	29	12
Blacks	18	8
Bar Crowds	15	6
Radicals	13	5
Poor People	6	3

John F. Galliher, L. Patrick Donovan, and David L. Adams, "Small-Town Police: Troubles, Tasks, and Publics," Journal of Police Science and Administration 3, 1 (March 1975), p. 24.

TABLE 2.13.--Reasons for Patrolling Certain Areas of Community Most Carefully in Small Towns.

Reasons	Number	Percent
More Burglary	215	62
Greatest Activity	38	11
Peace Disturbance	22	6
Drug and Drinking Problems	12	4
General High Crime Area	12	4
Vandalism	10	3
Other	35	10

Adapted from John F. Galliher, L. Patrick Donovan, and David L. Adams, "Small-Town Police: Troubles, Tasks, and Publics," Journal of Police Science and Administration 3, 1 (March 1975), p. 25.

Beyond these two studies, there remains a general lack of information concerning how patrol officers spend their uncommitted patrol time. Several investigators have realized this problem, as noted in Chapter I. One recent evaluation of patrol effectiveness reached the conclusion that "to make clearer statements about police patrols it would be necessary to have a more detailed description of what the police officers actually did in the patrols."⁷⁰ That is precisely the purpose of this thesis.

Summary

The general literature of police patrol gives considerably more attention to the handling of calls than to preventive patrol. This is reflected in police training, as little instruction in how-to-patrol is provided. Consequently, police officers learn to patrol primarily on the job, and even there the activity is largely self-taught.

Analyses of the nature of police work, most of which have concentrated on patrol, are fraught with a number of shortcomings. Among these have been a reliance on only calls from the public, a failure to account for time consumption by different tasks, and severe definitional ambiguities. In general, the studies have also stopped short of analyzing police use of free patrol time.

Patrol research has cast doubt upon the effectiveness of routine preventive patrol, while affirming that under certain conditions certain levels of patrol apparently have some effect on the incidence of crime. These studies are responsible for a growing

acceptance of the view that patrol resources need not necessarily be committed to traditional patrol.

Several police strategies have emerged, including directed, split force, and community-oriented patrol, that seek to apply patrol resources in innovative ways. The general thrust of the strategies is to provide direction and planning for police use of free patrol time.

Very little research has been conducted, however, to determine how police officers actually spend their uncommitted patrol time. Given the absence of such descriptive information, it may be premature to consign routine preventive patrol to its grave.

In the next chapter the design of this study is discussed. Then, in Chapter IV, the analysis of the data concerning police use of free patrol time is presented.

FOOTNOTES--CHAPTER II

²⁶Webster's Seventh New Collegiate Dictionary (Springfield, MA: G. & C. Merriam, 1967), p. 618.

²⁷The terms preventive patrol, routine patrol, and random patrol are used interchangeably in this study to refer to the practice of giving each officer wide latitude in determining how to use free patrol time.

²⁸A. F. Brandstatter and Allen A. Hyman, Fundamentals of Law Enforcement (Beverly Hills, CA: Glencoe, 1971), p. 197.

²⁹Alan J. Butler, The Law Enforcement Process (Port Washington, NY: Alfred, 1976), p. 154.

³⁰Samuel G. Chapman, Police Patrol Readings (Springfield, IL: Charles C Thomas, 1964), p. x.

³¹Thomas F. Adams, Police Patrol: Tactics and Techniques (Englewood Cliffs, NJ: Prentice-Hall, 1971).

³²David H. Gilston and Lawrence Podell, The Practical Patrolman (Springfield, IL: Charles C Thomas, 1959).

³³Donald T. Shanahan, Patrol Administration: Management by Objectives (Boston: Holbrook, 1975).

³⁴Richard L. Holcomb, Police Patrol (Springfield, IL: Charles C Thomas, 1948).

³⁵James Q. Wilson, "Dilemmas of Police Administration," Public Administration Review (September/October 1968): 414.

³⁶Gilston and Podell, The Practical Patrolman, p. vii.

³⁷Rubenstein, City Police, p. 219.

³⁸Chapman, Police Patrol Readings, p. ix.

³⁹Elaine Cumming, Ian Cumming, and Laura Edell, "Policeman as Philosopher, Guide and Friend," Social Problems 12 (1965).

⁴⁰Ibid., p. 285.

⁴¹Wilson, Varieties of Police Behavior, p. 18.

⁴²Ibid., pp. 30-34.

⁴³Thomas Bercal, "Calls for Police Assistance," American Behavioral Scientist 13 (1970).

⁴⁴Ibid., p. 682.

⁴⁵Albert J. Reiss, Jr., The Police and the Public (New Haven: Yale University, 1971), p. 75.

⁴⁶J. Robert Lilly, "What Are the Police Now Doing?," Journal of Police Science and Administration 6, 1 (March 1978): 51-60.

⁴⁷John A. Webster, "Police Task and Time Study," The Journal of Criminal Law, Criminology and Police Science 61 (1970); also see John A. Webster, The Realities of Police Work (Dubuque, Iowa: Kendall/Hunt, 1973).

⁴⁸Webster, "Police Task and Time Study," p. 100.

⁴⁹From Webster's article one learns that he used data for 387 patrol officers for a 54-week period. Using a very conservative time-off factor of 2.0, he should have accounted for 417,960 patrol hours, but only reported 301,127 hours. The difference, 116,833 hours, apparently represents uncommitted time.

⁵⁰Michael E. O'Neill and Carlton J. Bloom, "The Field Officer: Is He Really Fighting Crime?," The Police Chief 39 (February 1972): 30-32.

⁵¹B. Miller and A. Weeks, "Police Programme Accounts," Police Research Bulletin 20 (Autumn 1972): 28-31.

⁵²P. J. Arkell and R. W. Knight, "The Analysis of a Territorial Division," Police Research Bulletin 25 (Summer 1975): 14-26.

⁵³John F. Galliher, L. Patrick Donovan, and David L. Adams, "Small-Town Police: Troubles, Tasks, and Publics," Journal of Police Science and Administration 3, 1 (March 1975): 19-28.

⁵⁴The writer is indebted to Dr. Larry Hoover for originally pointing out many of these weaknesses of previous analyses. See also Herman Goldstein, Policing A Free Society (Cambridge, MA: Ballinger, 1977), pp. 21-44; and Clifford D. Shearing and Jeffrey S. Leon, "Reconsidering the Police Role: A Challenge to a Challenge of a Popular Conception," Canadian Journal of Criminology and Corrections 19 (October 1977).

⁵⁵For two excellent reviews of recent police research, see George L. Kelling, "Police Field Services and Crime: The Presumed Effects of a Capacity," Crime and Delinquency (April 1978); and James Q. Wilson, Thinking About Crime (New York: Basic Books, 1975), pp. 81-97.

⁵⁶George L. Kelling, Tony Pate, Duane Dieckman, and Charles E. Brown, The Kansas City Preventive Patrol Experiment: A Summary Report (Washington, D.C.: Police Foundation, 1974); and Kelling et al., The Kansas City Preventive Patrol Experiment: A Technical Report.

⁵⁷Kelling et al., The Kansas City Preventive Patrol Experiment: A Summary Report, p. 16.

⁵⁸Wilson, Thinking About Crime, pp. 82-83.

⁵⁹J. A. Bright, Beat Patrol Experiment (London: Home Office, 1969).

⁶⁰S. J. Press, Some Effects of an Increase in Police Manpower in the 20th Precinct of New York City (New York: Rand Institute, 1971).

⁶¹Jan M. Chaiken, Michael W. Lawless, and Keith A. Stevenson, The Impact of Police Activity on Crime: Robberies in the New York City Subway System (New York: Rand Institute, 1974).

⁶²John F. Schnelle, Robert E. Kirchner, M. Patrick McNees, and Jerry M. Lawler, "Social Evaluation Research: The Evaluation of Two Police Patrolling Strategies," Journal of Applied Behavior Analysis 8 (Winter 1975).

⁶³John F. Schnelle, Robert E. Kirchner, Jr., Joe D. Casey, Paul H. Uselton, Jr., and M. Patrick McNees, "Patrol Evaluation Research: A Multiple-Baseline Analysis of Saturation Police Patrolling During Day and Night Hours," Journal of Applied Behavior Analysis 10 (Spring 1977).

⁶⁴G. Hobart Reinier, Mark R. Greenlee, Mark H. Gibbens, and Stephen P. Marshall, Crime Analysis in Support of Patrol (Washington, D.C.: Government Printing Office, 1977).

⁶⁵Stephen Schack, Theodore H. Schell, and William G. Gay, Improving Patrol Productivity: Specialized Patrol (Washington, D.C.: Government Printing Office, 1977); and Kenneth W. Webb, Barbara J. Sowder, Arthur J. Andrews, Marvin R. Burt, and Edward F. Davis, Specialized Patrol Projects (Washington, D.C.: Government Printing Office, 1977).

⁶⁶James M. Tien, James W. Simon, and Richard C. Larson, An Alternative Approach in Police Patrol: The Wilmington Split-Force Experiment (Cambridge, MA: Public Systems Evaluation, 1977).

⁶⁷Kelling et al., The Kansas City Preventive Patrol Experiment: A Technical Report, p. 506.

⁶⁸Ibid., p. 510.

⁶⁹Galliher et al., "Small-Town Police: Troubles, Tasks, and Publics."

⁷⁰Schnelle et al., "Social Evaluation Research: The Evaluation of Two Police Patrolling Strategies," p. 365.

CHAPTER III

DESIGN OF THE STUDY

Introduction

The review of the literature on the subject of police time allocation uncovered considerable material on the general activity of police patrol, but very little either prescriptive or analytical material concerning the narrower issue of free patrol time utilization. This study is designed as an exploratory investigation of the free patrol time question.

Most of the studies of patrol workload and time utilization conducted to date have based their analyses on some form of dispatch records. These records provide a considerable amount of data concerning police handling of citizen calls and assigned details, but not about free patrol time use. Whatever police officers do during their free patrol time is done between calls and assignments, and dispatch records reveal only that the officers are available for calls, not what they are actually doing during the uncommitted time.

Another method commonly used to collect information about patrol officer time utilization is the activity sheet. These sheets are forms filled out by patrol officers during their tours of duty, listing activities undertaken by times of occurrence. Ordinarily, only discrete work-related tasks are reported on the activity sheets, with the assumption being that time not accounted for on

the sheets was allocated to "general patrol." This general patrol represents the free time of interest in this study.

Because this study has as its focus police use of free patrol time, neither the dispatch record nor activity sheet methods of accumulating information are appropriate. As usually compiled, neither source contains detailed information about the issue under investigation. Also, both dispatch records and activity sheets are commonly used by police departments to evaluate individual performance. Because the information is largely self-reported by individual police officers, and then used to evaluate them, its accuracy must be questioned. One study that used activity reports for data concerning police self-initiated tasks was severely hampered by this problem.⁷¹ Despite repeated assurances that the activity sheets were being used only for research purposes, the police officers involved feared that they would be evaluated based on the sheets, and as a result considerable dishonesty was evidenced.

A third general means of gathering information about police use of free patrol time is via a survey or questionnaire. This method has the advantage of anonymity, which mitigates against dishonesty among respondents. There are disadvantages associated with the use of a survey to collect information about free patrol time utilization, however. Officers must generalize about their use of uncommitted patrol time; in order for the generalizations to be valid, the officers must accurately recall how they have used their time and average across their experience. Inaccuracies can be introduced both by imperfect recall and by faulty averaging. Also,

the generalization process carried out by the survey respondents deprives the researcher of information about the variability within subjects in the use of free patrol time. In addition, survey questions are frequently not absolutely clear, making respondent interpretation necessary and introducing the possibility that the questions may mean different things to different respondents.

A final means of collecting data about police use of uncommitted patrol time is through observation. This is by far the most costly method of gathering information, but also potentially the most fruitful. Other than the cost consideration, the most serious problem associated with this method is observer contamination. With observation studies, the possibility always exists that the subjects being observed will act differently because they are being watched. When this atypical behavior is recorded by the observer, it is falsely assumed to be ordinary and usual, and the resulting analysis and interpretation are damaged.⁷² A second possibility is observer co-optation, in which the observer becomes so sympathetic to the research subject that any semblance of objectivity is lost.

In this exploratory study of police use of free patrol time the observation and survey methods of data collection are used. The site of the study is Lansing, Michigan, a city with a population of approximately 130,000. Lansing is the state capitol of Michigan; it has a considerable industrial and manufacturing base, numerous state government offices, and a 13% minority population (mainly Black, with some Spanish-speaking).

The Lansing Police Department employs 275 sworn officers and takes about 8,000 Part I crime reports annually. It is organized traditionally, with three equal-sized patrol squads that rotate shifts every month. The conduct of patrol is also traditional, with officers responsible for handling their calls and details but otherwise free, within their patrol areas, to use their uncommitted time as they see fit. No team policing or directed patrol strategies are in use.

Research Questions

As discussed in Chapter I, general research questions are used in this study rather than detailed hypotheses. The research is decidedly exploratory, and in large measure merely descriptive. The primary purpose of the study is to find out how police officers use their free patrol time; rather than having hypotheses to test, this research is more designed to provide the basic information upon which the construction of informed hypotheses can be based. The six research questions are listed below.

1. How do police patrol officers spend their uncommitted, or free, patrol time?
2. Does the use of free patrol time vary by time of day?
3. Does the use of free patrol time vary among organizational sub-units (patrol squads)?
4. What is the relationship between years of schooling and police use of free patrol time?
5. What is the relationship between field of college study and police use of free patrol time?
6. What is the relationship between years of police experience and police use of free patrol time?

The observation component of this study in Lansing addresses the first three research questions, while the survey component provides information pertaining to all six questions. The last three research questions are not addressed by the observation data primarily because of the restricted sample size used for that phase of the study.

Observation Component

One of the methods used to collect information about police use of free patrol time in Lansing was direct observation of patrol officers at work. The direct observations were accomplished through the ride-along method, in which the researcher accompanied police officers on patrol. All of the patrols were mobile, and the researcher's vantage point in each instance was the front passenger seat of the marked patrol car. The researcher recorded observations as they were made with pen and paper.

Officers being observed were informed by the researcher that police use of patrol time was the object of the study. The researcher strongly emphasized that the study was being conducted to develop reliable information about the practice of police patrol, and that no information concerning individual officers would be presented either to the Department or in the report of the research. Officers were advised that a general summary of the research findings would be given to the Lansing Police Department, but that it would be impossible for anyone to connect reported findings or observations to any individual officer. Officers being observed

were also advised that the research was in no way frivolous, but rather that the findings were potentially of considerable importance to the study and practice of policing. Finally, the researcher specifically asked officers being observed to behave typically, so that the observations would be representative of their normal patrol behavior.

In addition to the formal assurances and requests noted above, the researcher in all cases casually let it be known that he had formerly served as a police officer in another jurisdiction. Mention of this situation always led to considerable conversation about comparative practices, experiences, and the like, and seemed to dissolve observable uneasiness and suspicion. Because of this fraternal bond, and the formal assurances, it is believed that officers observed for this study exhibited reasonably typical behavior. Previous observation studies of other aspects of policing have consistently found that observers quickly become unobtrusive, with officers evidencing little concern or inhibition due to the presence of the observers.⁷³ This seemed to be the case in Lansing; officers being observed broke no criminal laws, but frequently and openly violated a variety of Departmental regulations, for which they could have been harshly sanctioned. The willingness of officers to so conduct themselves in the presence of the observer was taken as evidence that behavior was not being seriously constrained due to the research method used.

Sample

The researcher did not have the opportunity to randomly select officers to be observed on patrol. Instead, the observer first chose ten occasions to ride-along, and the patrol supervisors in command at those times chose the officers to be observed. The only constraints on the supervisors' choices were that the units observed be one-man cars, and that they be regular patrol units assigned to beats. The first condition was used to avoid the problem of characterizing the time utilization of two-man units, in which the two officers could be engaged in the same activities at some times and different activities at other times. The regular patrol condition was used to avoid observer assignment to command, traffic, or plain clothes units, whose duties are fundamentally different from those of regular patrol units.

It is not known what effect the method of choosing the first ten officers to be observed had on the data collected. As noted earlier, the officers observed exhibited a wide range of questionable behavior, suggesting that they may not have been chosen as model patrol officers in all cases. On the other hand, it is quite likely that patrol supervisors did not select their worst personnel to be observed. Another consideration is that some officers are known by their supervisors to dislike observers and/or partners, and these officers effectively had the right to refuse to be accompanied by the observer. Based on these factors, it seems likely that the officers observed were fairly representative of the population and willing to be watched.

After the first ten ride-alongs, the researcher selected three of the observed officers for an additional total of ten ride-alongs. The primary selection criteria were assignment to different squads, and willingness to accommodate the researcher for additional observations. Also, the three officers were at different stages of their careers and in different age groups.

On one occasion during the second ten observations an officer to be accompanied on patrol was given a special assignment for the entire shift, and the researcher rode-along with an officer not previously observed instead. Altogether, then, eleven different officers were observed, eight of which were accompanied once, one three times, one four times, and one five times. All twenty observations were for entire eight-hour tours of duty, so that the total observation sample consisted of 160 hours of patrol time. Four of the observed tours were during the day shift (7 a.m. to 3 p.m.), eight during the afternoon shift (3 p.m. to 11 p.m.), and eight during the night shift (11 p.m. to 7 a.m.). The observed tours also included both weekdays and weekends.

The observations were made during July and August 1977. Since the observations were evenly divided between the two different months, squads changed shifts during the middle of the study, and observations by shift (time of day) are not identical to observations by squad (organizational sub-unit). The three patrol squads (designated A, B, and C) were observed eight, five, and seven times, respectively.

Because of the small number of officers observed, the observation data is not used to investigate the three research questions concerning personal characteristics as they relate to the use of free patrol time. The small sample size and the means of selecting the sample make it impossible to use the observation data for either hypothesis testing or definitive analysis. Within the context of this exploratory study, though, the observation data can be used to investigate the basic question concerning police use of free patrol time, and to suggest how such use varies by time of day and squad. The observation data can also be compared to the findings of previous studies and to the survey data from this study, in order to assess its validity. In general, however, the observation data cannot be relied upon with great confidence.

Measures

The observation data were collected in the form of a running log of the patrol officers' activities. All time from the start to the conclusion of the shifts, or 480 minutes per tour of duty, was accounted for. Whenever officers were involved in discrete activities, such as handling calls, making traffic stops, or taking breaks, information was recorded concerning the nature of the activity. When officers were engaged in the more general activity of patrolling, information was recorded concerning the type of roadway, the approximate speed, and the type of location of the activity.

The observer was required to interpret the officers' behaviors in some instances. This was primarily the case with respect

to patrolling; when officers were riding around, not going to a call or a meal, their behavior was generally recorded as patrolling, despite the fact that on some occasions the act of riding around may have constituted a break in the minds of the officers involved. The researcher felt that questioning officers about their intentions on such occasions would have caused the officers to become self-conscious about their behavior, which might then have caused them to change that behavior due to observer contamination. Rather than risk such an effect, whenever the observer was not able to clarify an activity through casual conversation it was interpreted based on the available information. In reality, this interpretation process was not needed very often, and to the extent that interpretation was necessary the observer's familiarity with police practice, culture, and language may have served to minimize the introduction of error into the data.

The basic measures used with the observation data pertained to time allocated to different activities. The time allocation for each observation was summed along several dimensions, some including only free patrol time and some including all eight hours of each tour of duty. The dimensions used included those from earlier published studies (the Wilson, Bercal, Webster, O'Neill and Bloom, and Kansas City studies discussed in Chapter II) and ones developed specifically for this study. The primary new categories used to classify patrol time use in this study are defined below.

Roll Call & Early In - time spent in headquarters being briefed and checked at the start of the shift, before going out to the patrol area; and time between going to headquarters near the end of the shift, and the official end-of-shift time.

Driving To and From Beat - time spent at the start of the shift, driving to the assigned patrol area; and time spent at the end of the shift, driving from the patrol area to headquarters.

Assigned Details - miscellaneous duties, not arising from a citizen request, that are assigned to patrol officers by headquarters or supervisors; examples are picking up supplies for the Department, rearranging patrol cars in the garage, and getting the patrol car washed.

Paperwork - time spent completing incident reports, activity reports, traffic tickets, etc.; includes only time spent directly on filling out the forms, not investigative time spent obtaining the information being reported.

Handling Calls Assigned by HQ - time spent on calls that originated as citizen requests for police assistance and were assigned to individual patrol units by headquarters; does not include tasks initiated by officers themselves, or time spent purely on subsequent paperwork; includes travel time to the scene of the call, and travel time back to the patrol area, where applicable.

Meeting Other Officers - time spent meeting with officers in other patrol cars, for whatever purposes.

Handling Self-Initiated Tasks - time spent handling specific identifiable tasks not assigned by headquarters; includes only work-related tasks; does not include time spent on general patrol; primarily traffic stops, arrests, inquiring into suspicious circumstances, and investigating open premises.

Taking Breaks - time spent on matters clearly not work-related; includes meals, coffee breaks, talking to personal friends, pleasure reading, personal shopping, etc.

Alley Patrolling - time spent driving along or stationary in one-lane non-through streets, not involved with calls or self-initiated tasks, during which the officers' purposes were to observe or be observed.

Off-Street Patrolling - time spent driving along or stationary in non-roadway locations, while not involved with calls or self-initiated tasks, during which the officers' purposes were to observe or be observed; primarily shopping center parking lots and off-street sections of parks.

Side Street Patrolling - time spent driving along or stationary in streets governed by frequent traffic lights and/or stop signs and speed limits in the 15-30 mile per hour range, while not involved with calls or self-initiated tasks, during which the officers' purposes were to observed or be observed.

Main Street Patrolling - time spent driving along or stationary in streets governed by few traffic lights and/or stop signs and speed limits in the 30-45 mile per hour range, while not involved with calls or self-initiated tasks, during which the officers' purposes were to observe or be observed.

Highway Patrolling - time spent driving along or stationary in roadways with speed limits in excess of 45 miles per hour, while not involved with calls or self-initiated tasks, during which the officers' purposes were to observe or be observed.

Analysis

The analysis performed with the observation data was limited to summing and averaging. Average time spent on different activities by all officers, by shifts, and by squads was computed, as well as the portions of patrol time accounted for by the activities. The averages and portions are compared to similar figures arrived at in earlier studies, as well as to similar measures from the survey portion of this study. Given the restricted sample size and sampling method for the observation data, more sophisticated analysis would not be appropriate.

Survey Component

After the completion of the observation phase of the study, a questionnaire was administered to patrol officers in Lansing, asking them about their use of free patrol time. The questionnaires were passed out at roll call line-ups prior to the beginning of shifts, and collected eight hours later at the conclusion of the

shifts. Each shift was approached twice by the researcher, so that patrol officers with days off on one occasion might be present on the second. When the questionnaires were distributed at the line-ups, the researcher mentioned the previous observation phase of the study, the seriousness of the research, and the Department's support of the effort. The researcher asked the patrol officers to give each question careful consideration, and to respond honestly and as accurately as possible. Finally, the researcher promised to prepare a summary of the survey responses, a copy of which would be given to all patrol officers in the Department. This last item was designed to emphasize the researcher's commitment to the study, which was important inasmuch as the Department was a popular research site and the officers had become somewhat jaded by their survey experiences. The extent to which patrol officer commitment was obtained is not known, but several officers responded, either verbally or on their questionnaires, to the effect that this survey was one of the better ones that they had encountered.

Sample

At the time of the survey there were 120 patrol officers assigned to the patrol division of the Lansing Police Department. Questionnaires were distributed to 95 of these officers, or 79% of the patrol force. The number of questionnaires returned to the researcher was 79, which represents an 83% return rate and 66% of the patrol force.

Some aspects of the demographic composition of the patrol officer respondents are presented in Table 3.1. Data on the race and sex of respondents was not collected for two reasons, both tied to the small numbers of officers not in the white male category. On the one hand, the reporting of this data might have made the guarantee of anonymity less believable to the respondents, and it would have made it easy to link surveys to individuals. On the other hand, race and sex data would not have been particularly useful for analysis purposes, because of the small number of officers other than white male.

As each squad was approached twice with the questionnaire, on different days of the week, and given the relatively high sampling and response rates, it would seem that each patrol officer assigned to the patrol division had an equally likely chance of being included in the survey sample. Therefore, the sample may be considered representative of the population from which it was drawn.

Measures

Two types of measures of patrol time use were used in the survey. One was based on the seven time categories utilized in the Kansas City study. Those seven categories and their complete example-definitions were presented in the survey, and respondents were asked to estimate their average allocation of free patrol time between the categories. In instances where officers reported allocating more than 100% of their free patrol time, the portions for all categories were reduced by the percent of over-reporting. Such

TABLE 3.1.--Demographic Characteristics of Survey Respondents.

Characteristics	N	%
Rank		
Patrol Officer	79	100.0
Squad		
A	29	36.7
B	25	31.6
C	25	31.6
Years of School		
12-13	10	12.7
14	24	30.4
15	11	13.9
16-20	34	43.0
Major Field of College Study		
Law Enforcement/Police	21	26.6
Criminal Justice	32	40.5
Other	21	26.6
None	5	6.3
Years of Police Experience		
1- 4	25	31.6
5- 7	25	31.6
8-10	21	26.6
11-27	8	10.2

instances were not frequent. The seven Kansas City categories are listed below, along with their example-definitions.

Stationary Police-Related - report-writing, waiting for tows, filling out encounter surveys, surveillances, traffic ordinance enforcement.

Stationary Nonpolice-Related - eating, resting, reading non-police materials, talking to observer, relief-calls, girl-watching, phone calls, visiting with friends, sleeping, watching movies or sports events.

on n.

Mobile Police-Related - looking for suspicious cars, people, stolen autos and traffic violations; watching residences and buildings, training new patrol officers.

Mobile Nonpolice-Related - driving nonchalantly to relieve boredom, girl-watching; going to eat, to the bank, to the cleaners, or on other personal errands; pleasure riding.

Contacting Personnel in Field, Police-Related - talking about crime suspects, calls, policies, procedures, getting or giving information on policies or procedures, exchanging mug shots, getting reports approved, discussing on-going innovations, evidence, courts, complaints.

Contacting Personnel in Field, Nonpolice-Related - general talk, hunting, cars, sports, sex, vacations, joke-telling, family life, leisure-time activities.

Residual - traveling to and from the station to the district, time in and traveling from court, garage, headquarters, radio repair, to district.

The second type of patrol time use measure used in the survey was a set of task emphasis items. Patrol officers were asked to report the emphasis they gave to each of seven tasks during their free patrol time for each of the three shifts (day, afternoon, night). The tasks used for each of the three sets of items are listed below.

- Checking Suspicious People
- Just Driving Around
- Checking Business Establishments
- Checking Residential Areas
- Checking and Enforcing Traffic
- Talking to the General Public
- Talking to Other Officers

Respondents were asked to indicate the emphasis given to each task on each shift on a 0-100 scale, with the 0 end labeled "No Emphasis" and the 100 end labeled "Strong Emphasis."

The 0-100 scale was used for the task emphasis measures because it made possible both absolute and relative comparisons.

That is, responses to the items could be compared in terms of the raw scores, as an absolute measure of reported emphasis, but they could also be adjusted for each shift to reflect a relative emphasis, taking into account the emphasis reportedly given to other tasks. This flexibility in the measure made it possible to perform analyses of both absolute and relative reported task emphasis.

Analysis

Because of the larger sample size and more satisfactory sampling procedure used with the survey, as compared to the observation phase of the study, more complete analysis of the data is possible. The reported time allocation estimates among the seven Kansas City categories were combined to the four categories reported in the earlier study (mobile police-related; nonpolice-related; stationary and contact personnel, police-related; and residual) to facilitate comparison. Bivariate relationships between these four variables and the independent variables (squad assignment, years of school, major field of college study, and years of police experience) were investigated, using two-way tables and the eta statistic. The relationships between the four Kansas City measures and the combined independent variables were also examined, using multiple regression analysis.

Similar bivariate and multivariate analyses were conducted using the reported task emphasis measures as dependent variables. For the bivariate tables, the task emphasis measures were used in

their relative form, in order to facilitate comparisons between and within groups. For the eta statistic and the multiple regression analysis the task emphasis measures were used in their absolute form.

Summary

This is an exploratory study aimed at describing how police officers use their free patrol time, and how variables such as time of day, organizational sub-unit, years of schooling, major field of college study, and years of police experience are related to patrol time use. Both observations and a survey are used to collect data on police use of free patrol time; this kind of multi-method approach has been recommended by other researchers.⁷⁴ The observation data in this study is to some extent compromised due to the small sample size and an irregular sampling method, and thus must be interpreted carefully. The sample size and method used for the survey are more satisfactory, and a number of bivariate and multivariate analyses of the survey data were conducted. The data and analyses were not used to test hypotheses in this exploratory study, but rather to develop descriptive statements about the use of free patrol time and to suggest the relative salience of selected organizational and personal variables.

The analysis of the observation and survey data collected in Lansing is presented in the next chapter.

FOOTNOTES--CHAPTER III

⁷¹Joseph M. Glisson, "The Relationship of Autonomous Patrol Performance and the Educational Level of Given Patrol Officers," unpublished paper, 1977.

⁷²For a detailed discussion of the advantages and disadvantages of data collection methods with respect to analyses of police workload, see J. P. Martin, "The Scope of Police Manpower Studies," in Crime, Criminology, and Public Policy, ed. Roger Hood (London: Heinemann, 1974), pp. 197-211.

⁷³Peter Manning, "The Researcher: An Alien in the Police World," in The Ambivalent Force, 2nd ed., eds. Arthur Niederhoffer and Abraham S. Blumberg (Hinsdale, IL: Dryden Press, 1976), pp. 103-121; Albert J. Reiss, Jr., "Stuff and Nonsense About Social Surveys and Observation," in Institutions and the Person, eds. Howard S. Becker, et al. (Chicago: Aldine, 1968), pp. 351-367; and John Van Maanen, "Epilogue on Watching the Watchers," in Policing: A View From the Street, eds. Peter Manning and John Van Maanen (Santa Monica, CA: Goodyear, 1978), pp. 309-349.

⁷⁴Reiss, "Stuff and Nonsense About Social Surveys and Observation."

CHAPTER IV

ANALYSIS OF THE DATA

In this chapter an analysis of data obtained by observing and surveying police patrol officers is presented. The data collected relate to police use of uncommitted, or free, patrol time. The presentation and analysis of the data is made within the framework of the research questions introduced in the first chapter.

General Use of Free Patrol Time

The primary purpose of this study is to determine how police officers use their uncommitted, or free, patrol time. As one means of measuring the activity, police officers were accompanied on twenty duty tours (8 hours each), with detailed records kept of the officers' time utilization. The observation data were then grouped in several different ways to summarize police use of patrol time.

The least aggregated summary of the observations is presented in Table 4.1. It should be noted that the categories and figures in this table account for all patrol time, and not simply free patrol time. The categories of time use pertaining only to free patrol time in Table 4.1 are isolated and summarized in Table 4.2.

From Table 4.1, it can be seen that the single activity category accounting for the largest portion of patrol officers' time

TABLE 4.1.--Disaggregated Summary of Observed Use of Patrol Time
(N = twenty 8-hour tours).

Activity	Average Minutes Per Tour	Percent of Total Time
Roll Call and Early In	36.4	7.6
Driving To and From Beat	2.0	0.4
Assigned Details	23.7	4.9
Paperwork	33.2	6.9
Handling Calls Assigned by HQ	122.3	25.5
Meeting Other Officers	10.1	2.1
Handling Self-Initiated Tasks	47.1	9.8
Taking Breaks	101.5	21.2
Alley Patrolling	8.5	1.8
Off-Street Patrolling	5.0	1.0
Side Street Patrolling	22.6	4.7
Main Street Patrolling	66.2	13.8
Highway Patrolling	0.2	0.0
TOTALS	478.8 ^a	99.7% ^b

^aAn average of 1.2 minutes per tour was "lost" due to illegible or incomplete field notes.

^bFor this and succeeding tables, total time not equal to 100% is due to rounding error.

was handling assigned calls. Slightly more than one quarter of patrol officer time was spent performing these tasks, which originated as citizen requests for police assistance and were assigned to individual patrol units by headquarters. By comparison, about 10% of patrol time was consumed by officers handling self-initiated tasks. These were police operational activities undertaken by the officers themselves, without assignment from headquarters. Also, these were specific identifiable tasks, as opposed to general activities such as routinely patrolling. Self-initiated tasks

TABLE 4.2.--Summary of Observed Use of Free Patrol Time (N = twenty 8-hour tours).

Activity	Average Minutes Per Tour	Percent of Free Patrol Time
Meeting Other Officers	10.1	3.9
Handling Self-Initiated Tasks	47.1	18.0
Taking Breaks	101.5	38.9
Alley Patrolling	8.5	3.3
Off-Street Patrolling	5.0	1.9
Side Street Patrolling	22.6	8.7
Main Street Patrolling	66.2	25.3
Highway Patrolling	0.2	0.1
TOTALS	261.2	100.1%

included making traffic stops, making arrests, investigating open premises, inquiring of suspicious people, and similar activities for which initiation was not pursuant to headquarters assignment.

The category accounting for the second largest segment of patrol officer time was taking breaks. This category included those activities of patrol officers that clearly had nothing to do with the performance of police work, such as meals, talking to personal friends, coffee breaks, pleasure reading, and personal shopping. The taking breaks category accounted for slightly more than 21% of patrol officer time.

The remainder of the time not falling within the domain of free patrol is reflected in the four categories of roll call and early in, driving to and from beat, assigned details, and paperwork. The assigned details category refers to miscellaneous duties, not

arising from a citizen request, that are assigned to patrol officers by headquarters or supervisors. Examples of these are picking up processed film for the department, getting the patrol car repaired or washed, and rearranging police cars in the garage. The other three categories seem self-explanatory. Together, these four categories account for 19.8% of patrol officer time.

Summing the four activity categories discussed just above and the category of handling assigned calls reveals that 45.3% of patrol officer time is consumed by more or less mandated tasks. The remaining time is that which is of primary interest in this study, namely, uncommitted or free patrol time. Data concerning the observed use of free patrol time is presented in Table 4.2.

The activities of handling self-initiated tasks and taking breaks were briefly discussed above. They are included within free patrol time because officers themselves initiate the activities and determine how much time to allocate to them. Admittedly, some threshold level of break time is inevitable, and thus might not truly be part of discretionary free patrol time. But identifying this level would be difficult, if not impossible, given individual variability in both real and perceived needs. Consequently, it seems more useful to include taking breaks within free patrol time, while keeping in mind that some portion of break time really is not uncommitted.

The remaining categories within free patrol time are meeting other officers, and several varieties of patrolling. The patrolling categories consist of time spent, both stationary and mobile, during

which the officers' purposes apparently were to observe or be observed. Driving to and from assigned calls or other tasks was not included within patrolling, but rather within the task categories themselves. Similarly, driving or sitting purely for personal or pleasure purposes was not included within patrolling. The five patrolling categories are differentiated by types of roadways. As can be seen, the majority of patrolling was done on main streets, which were defined as through routes (no stop signs) with speed limits in the 30-45 mile per hour range. Side streets were the next most frequent avenue for patrolling, followed by alleys, off-street locations, and highways. It should be noted that opportunities for off-street and highway patrolling were extremely limited in some of the beats in which observations were made.

The total time spent patrolling (the sum of the five patrolling categories) is almost exactly equal to the amount of time spent taking breaks. Patrolling and taking breaks each account for 39% of free patrol time, with meeting other officers and handling self-initiated tasks accounting for the remaining 22% of uncommitted time.

In Table 4.3 a comparison is made between the observations in this study and the 1966 Syracuse study of calls radioed to patrol vehicles (described in Chapter II). It should be recognized that for the Syracuse study the data base consisted of all calls radioed to patrol vehicles during a sample time period, whereas in this study the data base consists of calls radioed to vehicles in which the observer was riding. As indicated in the table, the portions of

TABLE 4.3.--Calls Radioed to Patrol Vehicles: A Comparison with Wilson's 1966 Syracuse Study.

Calls	Percent of Calls	
	Syracuse	Lansing
Information Gathering	22.1	11.8
Service	37.5	37.3
Order Maintenance	30.1	27.1
Law Enforcement	<u>10.3</u>	<u>23.7</u>
TOTALS	100.0%	99.9%
Number of Calls	312	127

calls in the two studies accounted for by the service and order maintenance categories are very comparable. Calls for information gathering in Lansing were only about half as frequent as in Syracuse, however, and law enforcement calls were about twice as frequent in Lansing. One possible explanation, other than simple situational differences, for the greater frequency of law enforcement calls in the Lansing study might be increased public use of alarms in the years between the studies. Proliferation of alarms might be associated with an increase of alarm calls received by the police, which are treated as indicating burglaries or robberies in progress and thus fit into Wilson's law enforcement category.

A comparison between this study's observations and Bercal's 1970 study of calls responded to by patrol in Detroit and St. Louis

TABLE 4.4.--Calls Responded to by Patrol: A Comparison with Bercal's 1970 Study of Detroit and St. Louis.

Calls	Percent of Calls		
	Detroit	St. Louis	Lansing
Predatory and Illegal Service Crimes	38.7	51.0	43.0
Public Disorder	34.8	27.2	36.8
Crimes of Negligence	12.0	9.6	11.4
Service	<u>14.5</u>	<u>12.2</u>	<u>8.8</u>
TOTALS	100.0%	100.0%	100.0%
Number of Calls	16,531	200,496	127

is shown in Table 4.4. Once again, the data bases for the two studies are considerably different, with the Lansing study using calls handled by units accompanied by the observer, while the Detroit/St. Louis study used extensive departmental records of all calls handled by patrol units during a sample time period. Nevertheless, the portions of calls accounted for by the four categories are fairly similar across the studies. A comparison between the service categories of Tables 4.3 and 4.4 points out the salience of category definitions in describing police activity. Wilson includes traffic-related matters, lost and/or found property, and drunkenness complaints within his service category for the Syracuse study. In Bercal's study, however, traffic matters are classified as crimes of negligence, recovered property (unqualified) falls into the predatory

and illegal service crime category, and drunkenness complaints are classified as public disorder. The result is a much smaller service category in Table 4.4, as compared with Table 4.3.

The observations made in this study are compared with Webster's 1970 study of patrol tasks in Table 4.5. Webster used dispatch records of patrol time consumption, and so only captured tasks performed by patrol officers that they reported to headquarters. By contrast, this Lansing study used direct observations, thus capturing all tasks performed by patrol officers. The direct observation method could be expected to result in more identified tasks, especially in the categories of traffice, on-view, and administration. Officers in Lansing were observed making traffic stops, checking out suspicious people, doing paperwork, and taking breaks without having notified the dispatcher, and it seems unlikely that this phenomenon would be limited to the research site. Given this consequence of the two data collection methods reflected in Tabld 4.5, the portions of tasks falling in the various categories are quite comparable. Of course, this table and the two that preceded it reflect numbers of calls and tasks, rather than time consumed. This is remedied in Table 4.6.

This study's observations are compared with the O'Neill and Bloom 1972 study in Table 4.6. That study used patrol officer self-reports to investigate the use of patrol time in 18 California cities, whereas for this study direct observations of patrol time use were made. It is interesting to note the variations between the two studies for the patrol activities and non-duty activities categories.

TABLE 4.5.--Patrol Tasks: A Comparison with Webster's 1970 Study.

Task Category	Percent of Tasks	
	Webster	Lansing
Crimes Against Persons	2.82	3.07
Crimes Against Property	13.76	11.96
Traffic	7.16	10.43
On-View (Police-Initiated)	19.68	19.02
Social Service	17.27	12.88
Administration	<u>39.28</u>	<u>42.64</u>
TOTALS	99.97%	100.00%
Number of Tasks	600,000	417

TABLE 4.6.--Patrol Activity Time: A Comparison with the O'Neill and Bloom 1972 California Study.

Task Category	Percent of Patrol Time		
	California 17 Cities	California 1 City	Lansing
Administrative Duties	18.0	14.8	22.4
Non-Duty Activities	10.6	11.7	22.3
Traffic	12.8	11.2	11.0
Part I & Part II Crimes	4.7	4.9	12.4
Secondary Police Activities	13.2	21.5	6.4
Patrol Activities	37.3	33.7	21.7
General Services to the Public	<u>3.4</u>	<u>2.8</u>	<u>3.8</u>
TOTALS	100.0%	100.6%	100.0%
Number of Patrol Hours	1,224	1,424	160

The differences may reflect situational variability in the use of patrol time, but a second explanation may also have merit. If the non-duty and patrol activities categories are combined within the studies, they account, respectively, for 47.9%, 45.4%, and 44.0% of patrol time. These figures are very consistent across the studies. As opposed to differences in patrol time use (patrol activities category), this suggests differences due to the methodologies used. That is, all non-duty activities (breaks) performed by patrol officers in the Lansing study were recorded as such by the observer, but the self-reports used for the California study may not have been quite so accurate and/or honest. This methodological explanation would account for the differences between the studies in these two categories and, if correct, could have important implications for future studies of police patrol time use.

The Lansing study also differs substantially from the California studies in the crimes and secondary police activities categories. Whether these variations are the result of real situational differences in the use of patrol time or the result of the differing methodologies used is again an open question. To some extent these two categories are contiguous, simply applying to different degrees of criminal violations, and the sums of the categories are somewhat more consistent across studies than are the individual categories themselves. The two methodologies used would not seem to account for the differences in this instance, however, as officers could be expected to fully report the kinds of activities involved with these categories.

A look at the Lansing figures in Table 4.6 provides an interesting picture of police patrol work (this issue of the general nature of patrol work will be taken up again at the end of this chapter). Combining the traffic, crimes, and secondary police activities categories reveals that about 30% of patrol work is, loosely speaking, law enforcement- or crime-related. An additional 22% of patrol time is spent patrolling, or driving and sitting so as to see and be seen. Taken together, these two elements of patrol time account for about half of patrol work. The two categories of administrative duties and non-duty activities, both of which are down-time in the sense of not being time spent in the field patrolling or handling calls, each account for about 22% of patrol time. The remaining 4% of patrol time is spent on general services to the public; this is the only portion of patrol time that is both not crime-related and clearly service-related.⁷⁵

In Table 4.7 the Lansing study and the 1974 Kansas City study are compared in terms of police use of free patrol time. For the Lansing study, both direct observations of patrol time use and the responses from a survey of the patrol force are reported. With respect to the survey, officers were asked to estimate their average allocation of free patrol time among the seven categories used in the Kansas City study. These categories were stationary police-related; stationary nonpolice-related; mobile police-related; mobile nonpolice-related; contacting personnel in field, police-related; contacting personnel in field, nonpolice-related; and residual (for category definitions, see Chapter II). The categories were then

TABLE 4.7.--Police Use of Free Patrol Time: A Comparison with the 1974 Kansas City Study.

Time Category	Percent of Free Patrol Time		
	Kansas City	Lansing Observations	Lansing Survey
Mobile Police-Related	23.54	32.04	33.32
Nonpolice-Related	25.47	34.40	20.80
Stationary and Contact Personnel, Police-Related	26.01	13.50	39.82
Residual	<u>24.98</u>	<u>20.06</u>	<u>6.56</u>
TOTALS	100.00 %	100.00 %	100.50 %
Number of hours	1,230	160	
Number of respondents			79

consolidated to correspond to the reported findings from the Kansas City study.

In terms of data collection method, the Lansing Observations and Kansas City columns of Table 4.7 are the most comparable. The Kansas City figures, like the observations for this study, are based on direct observations made by observers riding in patrol cars. Comparing the two columns reveals some rather substantial variations. The portion of free patrol time spent in Lansing on police-related stationary and personnel-contacting duties was only about half that spent on the same activities in Kansas City. This time was accounted for in Lansing by spending about a third more

time on nonpolice-related and mobile police-related tasks than was the case in Kansas City. As the data collection methods for the two observation studies were the same, and as the category definitions seem very clear, it seems likely that the variations in the use of free patrol time between Kansas City and Lansing are real. The small sample size for the Lansing study, and the fact that all the observations were made during the summer, could also account for some of the difference.

The variations between the Lansing observation and survey figures in Table 4.7 are very substantial in all but the mobile police-related category. If the accuracy of the observation data can be assumed, the error in the survey data might reflect misunderstanding of the category definitions, inaccurate estimation of average free patrol time allocation, or deliberate dishonesty. A plausible explanation of the error might be that officers over-estimated the time they spend writing reports, under-estimated their residual time (especially the aggregation of numerous short travel times), and both under-estimated and under-reported their nonpolice-related time. Together with a measure of misunderstanding of the time categories, the explanation could account for the difference between the observation and survey figures. Regardless of the explanation, this comparison, together with that made between the Lansing and California studies, strongly suggests that direct observation of patrol time use is far superior, in terms of accuracy of data collected, to self-reporting of patrol time use.

The observations of patrol time use included data collection on the approximate speed at which officers did their patrolling; the findings are summarized in Table 4.8. Referring back to Table 4.2, it is obvious that speed of patrolling is closely related to the type of roadway on which the patrolling is done. The figures for medium speed and main street patrolling are very similar, and the slow speed figures reflect those for alley, off-street, and side street patrolling. Probably, with the exception of those times of day when other traffic is not a consideration, patrolling speed closely matches that of other traffic on the streets.

In Table 4.9, data is presented concerning the types of locations in which officers chose to patrol in Lansing during the observation study. It should be noted that officers' choices of locations in which to patrol are restricted by the characteristics

TABLE 4.8.--Observed Approximate Speed of Patrolling (N = twenty 8-hour tours).

Speed	Average Minutes Per Tour	Percent of Free Time Patrolling
Stationary (0 mph)	3.5	3.4
Slow (1-25 mph)	35.2	34.3
Medium (26-40 mph)	63.5	61.8
Fast (41+ mph)	<u>0.5</u>	<u>0.5</u>
TOTALS	102.7	100.0%

TABLE 4.9.--Observed Locations in Which Officers Chose to Patrol
(N = twenty 8-hour tours).

Locations	Average Minutes Per Tour	Percent of Free Time Patrolling
Manufacturing	4.6	4.6
Business	54.9	54.7
Residential	36.2	36.1
Country/Park	<u>4.6</u>	<u>4.6</u>
TOTALS	100.3	100.0%

of their patrol areas. In Lansing, some patrol areas have little or no manufacturing and/or country/park sections, so that officers working these areas could not choose to patrol such sections. However, all beats observed had sections that could be classified as residential and business. As can be seen in the table, the majority of patrolling time was spent in business areas, with a considerable portion of time also spent in residential areas. The relationship between location of patrolling and speed and roadway should be evident. Medium speed main street patrolling primarily takes place in business areas, whereas slow speed side street patrolling is more characteristic of residential areas.

Free Patrol and Time of Day

The relationship between the use of free patrol time and time of day (shift) can be investigated using both the observation

and survey data. In Table 4.10, the observed use of free patrol time by shift is presented in terms of the eight categories of Table 4.2. As shown, the average total minutes of free patrol time available did not vary much by shift. The distinguishing feature of the daytime (7 a.m. - 3 p.m.) shift was a greater time devotion to main street patrolling; of the afternoon (3 p.m. - 11 p.m.) shift, it was that more time was spent handling self-initiated tasks; and of the night (11 p.m. - 7 a.m.) shift, more time was spent taking breaks. These characteristics are not simply those of organizational subunits (patrol squads), because the squads rotated shifts during the observation study, so that the shift figures in Table 4.10 reflect across squad sampling. As a measure of the reasonableness of the figures, the distinguishing features noted seem consistent with common sense impressions of the three shifts. During the night shift there is relatively less to do, with less people about, thus making more break time both possible and seemingly less wasteful. During the afternoon shift people frequent bars and other entertainment centers and are generally out on the streets, giving patrol officers greater opportunities for self-initiated activity. And during the day shift, the public is generally to be found on the main streets, though their daytime demeanor may present the officer with fewer opportunities for undertaking self-initiated tasks. During the daytime and afternoon shifts an officer has little trouble finding "legitimate" pursuits or at least distractions, but during the night shift such is not always the case.

TABLE 4.10.--Observed Use of Free Patrol Time by Time of Day
(Total N = twenty 8-hour tours).

Activity	Percent of Free Patrol Time		
	7 a.m.- 3 p.m.	3 p.m.- 11 p.m.	11 p.m.- 7 a.m.
Meeting Other Officers	5.2	2.5	4.6
Handling Self-Initiated Tasks	12.8	25.6	12.8
Taking Breaks	34.6	35.1	44.6
Alley Patrolling	2.0	1.4	6.0
Off-Street Patrolling	1.4	1.9	2.1
Side Street Patrolling	10.5	11.0	5.5
Main Street Patrolling	33.5	22.3	24.5
Highway Patrolling	<u>0.0</u>	<u>0.2</u>	<u>0.0</u>
TOTALS	100.0%	100.0%	100.1%
Average Total Minutes of Free Patrol Time	250.5	263.9	264.3
Number of Hours Observed	32	64	64

The observed use of free patrol time for different kinds of patrolling also coincided with general impressions. More time was spent on alley and off-street patrolling during the night shift, but less on side street patrolling, than during the other two shifts. This reflects the concern during the night shift with commercial burglaries (off-street patrolling included shopping center parking lots), and the relative lack of concern with residential burglaries during those hours. During the night shift most businesses are

closed and susceptible to burglary, whereas most residences are occupied and thus less likely to be burglarized.

Table 4.11 is also based on the observation data from Lansing, with the categories used for free patrol time classification being those from the Kansas City study. The portion of free patrol time devoted to mobile police-related duties is consistent across the shifts, but there are considerable differences across the other categories. The night shift used much less time for residual duties, which is probably attributable to the fact that courts and police administrative units are closed during this time period, and thus do not make demands on patrol officer time. The extra time this made available to the night shift was primarily allocated to nonpolice-related activities. The afternoon shift used about a third more free patrol time for nonpolice-related activities than did the daytime shift, while the night shift spent about two-thirds more time than the daytime shift on nonpolice-related activities. A smaller portion of afternoon shift time was given to the stationary and contact personnel, police-related category than for the other two shifts.

In Table 4.12 the survey responses of the patrol force to questions about the emphasis given to different tasks on different shifts are summarized. The responses generally correspond closely to the observations made and to overall impressions. The emphasis given to checking suspicious people is lowest for the daytime shift and highest for the night shift, which reflects the fact that during the day many people are out in public places doing all kinds of

TABLE 4.11.--Observed Use of Free Patrol Time by Time of Day, Using the Kansas City Categories (Total N = twenty 8-hour tours).

Time Category	Percent of Free Patrol Time		
	7 a.m.- 3 p.m.	3 p.m.- 11 p.m.	11 p.m.- 7 a.m.
Mobile Police-Related	31.3	32.6	30.7
Nonpolice-Related	24.9	32.7	40.4
Stationary and Contact Personnel, Police-Related	14.2	8.6	17.0
Residual	<u>29.6</u>	<u>26.0</u>	<u>11.9</u>
TOTALS	100.0%	99.9%	100.0%
Number of Hours Observed	32	64	64

lawful things, whereas during the night fewer people are out and some of them are likely to be intent on theft. Just driving around is given most emphasis on the daytime shift, which might simply be due to the daylight making it possible for the officer to enjoy the scenery. Checking business establishments gets increasing emphasis as the day wears on, and becomes the most emphasized activity during the night shift, certainly because most businesses are then closed and susceptible to burglary. The emphasis given to checking residential areas is quite consistent across shifts, and generally of fairly high priority. Checking and enforcing traffic follows the same pattern as just driving around, which is to say that it is given the most emphasis during the daytime and the least during the

TABLE 4.12.--Survey Responses for Emphasis Given to Patrol Tasks During Different Shifts (adjusted scores, N = 79 survey respondents).

Patrol Tasks	Emphasis Given		
	7 a.m.- 3 p.m.	3 p.m.- 11 p.m.	11 p.m.- 7 a.m.
Checking Suspicious People	12.5	19.5	23.3
Just Driving Around	12.8	8.1	6.0
Checking Business Establishments	11.1	15.9	24.1
Checking Residential Areas	16.8	14.8	16.5
Checking and Enforcing Traffic	20.9	19.6	13.2
Talking to the General Public	15.7	12.7	7.0
Talking to Other Officers	<u>10.2</u>	<u>9.4</u>	<u>9.8</u>
TOTALS	100.0%	100.0%	99.9%

Note: Respondents marked their scores for each task for each shift on a 0-100 scale. The average scores for each task per shift were then adjusted to correspond to portions of the total shift emphasis.

night shift. The low emphasis given to checking and enforcing traffic during the night shift probably reflects both the paucity of traffic at that time and the higher priorities given to checking businesses and suspicious people. The emphasis given to talking to the general public also follows the pattern of decreasing from day-time to night shifts. A major factor influencing this pattern is undoubtedly the differential availability of citizens with whom to talk at various times of the day. Finally, the emphasis given to talking to other officers is consistent and of low priority throughout the day.

Examining the columns of Table 4.12, rather than the rows, contributes to describing the salient tasks of the shifts. During the daytime shift, the most emphasized task is checking and enforcing traffic, followed by checking residential areas and talking to the general public. Thus, the public contact content of the daytime shift is fairly high. The first priorities of the afternoon shift are checking and enforcing traffic and suspicious people, followed by checking businesses and residential areas. Public contact during this shift remains frequent, but the contacts are more likely to be with suspicious and/or intoxicated people. During the night shift the activities of checking businesses and suspicious people predominate, with checking residential areas a distant third priority. Public contact during the night shift is thus much less frequent and very likely to incorporate suspicion. The emphases of the day, afternoon, and night shifts might be summarized as police-community relations, enforcement, and security, respectively.

The relationship between time of day and speed of patrolling, based upon the Lansing observations, is presented in Table 4.13. The variations between the shifts are not tremendous, but in general it is clear that speed of patrolling decreases as the day wears on. This is probably partially attributable to the relative presence of other vehicles using the streets, partially due to general visibility considerations, and partially designed to facilitate the observation of suspicious behavior, especially around businesses, during the later hours.

TABLE 4.13.--Observed Approximate Speed of Patrolling by Time of Day (Total N = twenty 8-hour tours).

Speed	Percent of Free Time Patrolling		
	7 a.m.- 3 p.m.	3 p.m.- 11 p.m.	11 p.m.- 7 a.m.
Stationary (0 mph)	1.1	1.8	6.4
Slow (1-25 mph)	28.2	36.6	35.7
Medium (26-40 mph)	70.7	61.1	57.2
Fast (41+ mph)	<u>0.0</u>	<u>0.5</u>	<u>0.7</u>
TOTALS	100.0%	100.0%	100.0%
Number of Hours Observed	32	64	64

In Table 4.14 the relationship between time of day and location of patrolling is presented. Once again it should be noted that the availability of manufacturing and country/park sections was very limited in some of the observed patrol areas. As is evident from the table, business and manufacturing sections are the beneficiaries of more patrolling as the day progresses, while the opposite is true for residential and country/park sections. These observed patterns are consonant with the survey emphasis responses reported in Table 4.12. For example, the observed pattern of country/park patrolling parallels the reported emphasis given to just driving around, and it was the observer's impression that most country/park patrolling was at least partially motivated by a desire to temporarily escape the city streets for the enjoyment of natural

TABLE 4.14.--Observed Locations in Which Officers Chose to Patrol,
by Time of Day (Total N = twenty 8-hour tours).

Locations	Percent of Free Time Patrolling		
	7 a.m.- 3 p.m.	3 p.m.- 11 p.m.	11 p.m.- 7 a.m.
Manufacturing	1.7	2.7	7.8
Business	36.4	60.3	61.1
Residential	53.3	31.0	29.9
Country/Park	<u>8.6</u>	<u>6.0</u>	<u>1.1</u>
TOTALS	100.0%	100.0%	99.9%
Number of Hours Observed	32	64	64

scenery. Late at night, however, the city streets are no longer crowded, while the scenery of the country/park sections is shrouded in darkness.

Free Patrol and Organizational Sub-Unit

The relationship between the use of free patrol time and organizational sub-unit membership can be investigated using both the observation and survey data collected in Lansing. The sub-units involved in this study are the three patrol squads. The patrol squads in Lansing rotate the hours of their duty tours each month. As the observations for this study were made over a two month period, the observation data for squads is distinct from the findings for time of day reported above.

The observed use of free patrol time by squads is presented in Table 4.15. There are some differences between the squads across activity categories, but the variations are not great. Squad A is distinguished by having the least time of any squad devoted to handling self-initiated tasks, and the most devoted to taking breaks. Squad B easily leads the other two squads in terms of time spent handling self-initiated tasks, while also spending more patrolling time on side streets and less on main streets than the other two squads. Patrol time use by Squad C is at about the average in all the major categories, with a relatively high but still minor time allocation for meeting other officers.

TABLE 4.15.--Observed Use of Free Patrol Time by Squads (Total N = twenty 8-hour tours of duty).

Activity	Percent of Free Patrol Time		
	Squad A	Squad B	Squad C
Meeting Other Officers	2.6	2.9	5.9
Handling Self-Initiated Tasks	13.4	24.3	18.8
Taking Breaks	45.3	35.2	34.1
Alley Patrolling	5.0	1.3	3.0
Off-Street Patrolling	0.7	0.8	4.0
Side Street Patrolling	6.5	14.5	7.2
Main Street Patrolling	26.6	20.7	27.0
Highway Patrolling	<u>0.0</u>	<u>0.3</u>	<u>0.0</u>
TOTALS	100.1%	100.0%	100.0%
Average Total Minutes of Free Patrol Time	250.5	263.9	264.3
Number of Hours Observed	64	40	56

In Table 4.16 data is presented concerning the relationship between squad membership and survey responses about emphasis given to various patrol tasks. The table is actually a combination of seven cross-tabular analyses, one for each of the patrol tasks. The eta statistics shown in the right hand column of Table 4.16 are those from the seven preliminary tables, and are a measure of association between the task variables and the squad variable. The values of the eta statistic can range from a minimum of zero to a maximum of one, and the larger the value the stronger the association between the two variables. The eta statistic does not assume linearity in the relationship between the two variables, and so is completely appropriate in instances such as this in which the independent variable (squad) is nominal.

The relationship between patrol squad and reported emphasis given to various patrol tasks does not seem very strong. There is relatively little variation across squads on the emphasis given to the tasks, and the eta values are fairly small. One interpretation of the squared eta value is that it represents the portion of variance in the dependent variable (patrol task) explained by the independent variable; the largest eta value in Table 4.16, when squared, accounts for only 4.4% of the variance of the dependent variable (talking to the general public). Also, for all three squads the most emphasized task is checking suspicious people, and the least emphasized is just driving around. The only discernible pattern is an apparent enforcement orientation for Squad C. Of the three squads,

TABLE 4.16.--Survey Responses for Emphasis Given to Patrol Tasks by Organizational Sub-Unit (N = 79 survey respondents).

Patrol Tasks	Emphasis Given			
	Squad A	Squad B	Squad C	eta
Checking Suspicious People	19.0	17.8	18.4	.18
Just Driving Around	8.8	9.5	9.2	.07
Checking Business Establishments	16.7	16.4	17.6	.08
Checking Residential Areas	16.0	15.8	15.9	.14
Checking and Enforcing Traffic	15.8	17.3	17.8	.10
Talking to the General Public	12.2	12.8	10.2	.21
Talking to Other Officers	<u>11.5</u>	<u>10.4</u>	<u>11.0</u>	.13
TOTALS	100.0 %	100.0 %	100.1 %	
Number of Respondents	29	25	25	

Note: Respondents marked their scores for each task for each shift on a 0-100 scale. The values reported above are the result of averaging and adjustment to correspond to portions of total emphasis.

that sub-unit reported the highest emphasis for checking and enforcing traffic, and the lowest for talking to the general public.

The relationship between the use of free patrol time, as measured by survey responses using the Kansas City categories, and squad membership is also the subject of Table 4.17. Within this table there is considerably more variability across categories than there was in the previous table, which was also based on survey responses. Within Table 4.17 Squad B seems to represent the mean

TABLE 4.17.--Survey Responses for Use of Free Patrol Time by Organizational Sub-Unit (N = 79 survey respondents).

Time Category	Percent of Free Patrol Time			
	Squad A	Squad B	Squad C	eta
Mobile Police-Related	22.8	33.1	39.6	.41
Nonpolice-Related	28.1	17.8	17.7	.34
Stationary and Contact Personnel, Police-Related	40.6	41.9	36.0	.12
Residual	<u>8.5</u>	<u>7.2</u>	<u>6.6</u>	.17
TOTALS	100.0%	100.0%	99.9%	
Number of Respondents	29	25	25	

for most categories, with Squad A reporting itself low on mobile police-related and high on nonpolice-related time use, and Squad C reporting the reverse pattern. The eta values are generally larger than in Table 4.16, such that the squad variable accounts for 16.8% of the variance in the mobile police-related variable and 11.6% of the variance in the nonpolice-related variable. These squared eta values are fairly large for social science research, suggesting that squad assignment is an important factor in predicting and explaining variability in police use of free patrol time.

Free Patrol and Years of Schooling

The relationship between patrol officers' years of schooling and their use of free patrol time can only be investigated in this study with the survey data. The range of personal characteristics

encountered during the observation stage of the study was not extensive, and collection of data about these characteristics was not complete.

Information concerning the relationship between reported emphasis given to various patrol tasks and patrol officers' years of schooling is presented in Table 4.18. As in the previous analyses using the patrol task emphasis variables, the table values are averages adjusted to correspond to portions of total emphasis. When responding to the original survey questions, officers could mark their scores for each task on a 0-100 scale. Consequently, some officers reported giving high emphasis to all tasks, while other officers also reported giving low emphasis to all tasks. While in some contexts the absolute scores might be of interest, for this portion of the study the various patrol tasks were viewed as competing for shares of each officer's time and emphasis, and thus the score adjustments to portions of total emphasis. The eta statistics reported in this and other tables were computed from grouped unadjusted scores, and thus should be interpreted carefully.

No strong or clear patterns in the relationship between years of schooling and emphasis given to different patrol tasks are evident in Table 4.18. The group with fourteen years of schooling is the most distinctive, giving more emphasis than any other group to checking traffic, businesses, and suspicious people, and less emphasis than any other group to talking to the general public. This would seem to reflect a crime or enforcement orientation, but

TABLE 4.18.--Survey Responses for Emphasis Given to Patrol Tasks by Patrol Officers' Years of Schooling (N = 79 survey respondents).

Patrol Tasks	Years of Schooling				eta
	12-13	14	15	16+	
Checking Suspicious People	18.9	19.0	18.7	17.5	.23
Just Driving Around	11.6	8.2	6.6	10.0	.19
Checking Business Establishments	14.2	19.8	16.4	15.9	.32
Checking Residential Areas	17.1	15.4	18.5	15.2	.28
Checking and Enforcing Traffic	16.7	18.6	14.8	16.6	.16
Talking to the General Public	13.1	9.8	13.0	12.4	.28
Talking to Other Officers	<u>8.4</u>	<u>9.2</u>	<u>11.9</u>	<u>12.4</u>	.31
TOTALS	100.0%	100.0%	99.9%	100.0%	
Number of Respondents	10	24	11	34	

Note: Respondents marked their scores for each task for each shift on a 0-100 scale. The values reported above are the result of averaging and adjustment to correspond to portions of total emphasis.

the differences between the groups are not substantial enough to support confident generalizations about this or any other patterns.

As mentioned, the eta values in Table 4.18 were computed from original unadjusted scores. The largest eta value is for checking business establishments, 10.2% of the variance of which is accounted for by the years of schooling variable. Although not shown in the table, it is interesting to note that the gamma values

for the seven relationships, computed from unadjusted scores, are all positive. In other words, in terms of the original responses concerning emphasis given to the patrol tasks, officers with more schooling reported giving more emphasis to all of the tasks.

The relationship between the use of free patrol time and years of schooling, in terms of survey responses to the Kansas City categories, is presented in Table 4.19. The variations across time categories are not great, as reflected in the rather small eta values. For the mobile police-related category, reported time allocation increases with years of schooling, while for the other three categories the pattern is less linear. The gamma values for the four comparisons (not shown in the table) are all also small, with that for the mobile police-related variable being positive, while those for the other three dependent variables are negative. Again, however, the magnitude of the differences are not great, as reflected in the small summary statistics, and so confident statements about the relationship between years of schooling and the use of free patrol time cannot be made. Whether this absence of a strong relationship is indicative of the effects of college education on police behavior, or whether, as Hoover and Hudzik have argued, the years of schooling variable reflects but one dimension of the educational experience, is an as yet unanswered question.⁷⁶

Free Patrol and Major Field of College Study

The relationship between patrol officers' major fields of college study and their use of free patrol time was examined using

TABLE 4.19.--Survey Responses for Use of Free Patrol Time by Patrol Officers' Years of Schooling (N = 79 survey respondents).

Time Category	Years of Schooling				eta
	12-13	14	15	16+	
Mobile Police-Related	24.6	31.8	32.0	33.0	.15
Nonpolice-Related	22.8	20.2	25.2	21.0	.16
Stationary and Contact Personnel, Police-Related	44.6	40.9	34.1	38.8	.18
Residual	<u>8.0</u>	<u>7.2</u>	<u>8.7</u>	<u>7.2</u>	.16
TOTALS	100.0%	100.1%	100.0%	100.0%	
Number of Respondents	10	24	11	34	

the survey data. As noted in the last section, the observation phase of the Lansing study was not extensive enough to produce useful direct observation data concerning the relationship between personal characteristics of officers and their use of free patrol time. The survey responses for major field of college study were grouped into three categories, which were law enforcement/police studies, criminal justice, and other. The other category could not be usefully disaggregated for this study because of the relatively small number of respondents falling into the category ($n = 16$, which was 23.2% of those respondents listing a major field of college study). Because of the manner in which the data was grouped, the field of college study variable may either be regarded as a

nominal variable or as an ordinal one. As an ordinal variable, the values for field of college study move from directly police-related to nonpolice-related, with the major field of criminal justice as the middle value.

In Table 4.20 the relationship between reported emphasis given to different patrol tasks and major field of college study is presented. The criminal justice group seems to represent the average time allocation for most of the categories, standing out only with respect to the task of talking to the general public, to which it devotes more time than either of the other two groups. The law enforcement/police studies group reports spending more time than either of the others on checking businesses and residential areas, and gives the least emphasis to talking to other officers. The "other" group holds the polar position in every patrol task category: they report giving more emphasis than either other group to just driving around, checking and enforcing traffic, and talking to other officers; and they give less emphasis than the others to checking suspicious people, businesses, and residential areas, and to talking to the general public. A coherent and logical explanation for this pattern has not emerged, unfortunately. In general, the eta values are all small, suggesting that the major field of college study variable does not account for very much of the variance in the patrol task emphasis variables.

A similar statement can be made about the relationship between major field of college study and reported allocation of

TABLE 4.20.--Survey Responses for Emphasis Given to Patrol Tasks
by Patrol Officers' Major Fields of College Study
(N = 74 survey respondents).

Patrol Tasks	Major Field of College Study			
	Law Enforcement Police	Criminal Justice	Other	eta
Checking Suspicious People	18.5	18.5	17.6	.12
Just Driving Around	8.0	9.4	9.9	.04
Checking Business Establishments	18.4	16.4	16.3	.20
Checking Residential Areas	16.3	15.5	15.2	.10
Checking and Enforcing Traffic	17.2	16.2	19.0	.11
Talking to the General Public	11.1	13.1	9.5	.21
Talking to Other Officers	<u>10.4</u>	<u>10.8</u>	<u>12.6</u>	.04
TOTALS	99.9%	99.9%	100.1%	
Number of Respondents	21	32	21	

Note: Respondents marked their scores for each task for each shift on a 0-100 scale. The values reported above are the result of averaging and adjustment to correspond to portions of total emphasis.

free patrol time, as summarized in Table 4.21. The eta values for the four comparisons are all relatively small. The patterns across categories are linear in three of the cases, however, and deserve mention. Increasingly police-related major fields of study are associated with increased reported time spent on the two police-related activity categories, according to the table. On the other

TABLE 4.21.--Survey Responses for Use of Free Patrol Time by Patrol Officers' Major Fields of College Study (N = 74 survey respondents).

Time Category	Major Field of College Study			
	Law Enforcement Police	Criminal Justice	Other	eta
Mobile Police-Related	35.2	32.0	20.6	.12
Nonpolice-Related	16.9	22.9	24.1	.16
Stationary and Contact Personnel, Police-Related	40.4	38.0	37.6	.10
Residual	<u>7.6</u>	<u>7.0</u>	<u>7.7</u>	.10
TOTALS	100.1%	99.9%	100.0%	
Number of Respondents	21	32	21	

hand, less police-related major fields of study are associated with increased time devoted to nonpolice-related activity. These patterns are supported by the gamma values for the comparisons discussed (not included in the table), which though small are signed as suggested by the patterns observed in Table 4.21.

Free Patrol and Years of Police Experience

The relationship between patrol officers' years of police experience and their use of free patrol time was examined through analysis of the survey data. The years of police experience variable was grouped into categories of one to four years, five to seven years, and eight or more years in order to create a roughly even

distribution of responses, rather than on the basis of any substantive rationale.

The relationship between reported emphasis given to different patrol tasks and years of police experience is presented in Table 4.22. Although there are no large variations across categories, several linear patterns are evident. Increased police experience is associated with reported increased emphasis given to checking suspicious people and talking to the general public, and with decreased emphasis given to just driving around, checking business establishments and traffic, and talking to other officers. The raw emphasis scores, before adjustment, also show an interesting pattern. Increased years of police experience are associated with decreased overall emphasis as reported for every one of the seven patrol tasks. None of the eta values, however, are large enough to account for very much of the variance in the task emphasis variables.

In Table 4.23 the relationship between reported allocation of free patrol time and years of police experience is summarized. The only linear pattern is the positive relationship between years of police experience and time devoted to nonpolice-related activities. The eta value for this relationship is the largest of the four, but only accounts for 4.4% of the variance in the dependent variable. In general, the association between the two variables represented in Table 4.23 must be characterized as weak.

TABLE 4.22.--Survey Responses for Emphasis Given to Patrol Tasks
by Patrol Officers' Years of Police Experience
(N = 79 survey respondents).

Patrol Tasks	Years of Police Experience			
	1-4	5-7	8+	eta
Checking Suspicious People	17.1	18.0	19.9	.03
Just Driving Around	9.6	9.2	8.6	.17
Checking Business Establishments	17.5	16.7	16.5	.24
Checking Residential Areas	15.3	16.5	16.2	.14
Checking and Enforcing Traffic	17.9	16.8	15.9	.25
Talking to the General Public	10.2	10.8	14.5	.15
Talking to Other Officers	<u>12.5</u>	<u>12.0</u>	<u>8.4</u>	.26
TOTALS	100.1%	100.0%	100.0%	
Number of Respondents	25	25	29	

Note: Respondents marked their scores for each task for each shift on a 0-100 scale. The values reported above are the result of averaging and adjustment to correspond to portions of total emphasis.

Multivariate Analysis

As shown by the data presented in the previous sections, none of the individual personal or organizational variables are very strongly related to reported emphasis given to patrol tasks or reported patrol time allocation. All of the relationships examined in the earlier discussions were simple bivariate ones, however. In this section the strength of association between the dependent and independent variables is investigated within a multivariate context,

TABLE 4.23.--Survey Responses for Use of Free Patrol Time by Patrol Officers' Years of Police Experience (N = 79 survey respondents).

Time Category	Years of Police Experience			
	1-4	5-7	8+	eta
Mobile Police-Related	34.5	28.6	31.1	.09
Nonpolice-Related	18.4	22.8	23.2	.21
Stationary and Contact Personnel, Police-Related	40.1	40.5	38.3	.10
Residual	<u>7.0</u>	<u>8.1</u>	<u>7.4</u>	.15
TOTALS	100.0%	100.0%	100.0%	
Number of Respondents	25	25	29	

in order to assess the overall explanatory power of the personal and organizational variables, and also to compare the relative strength of the independent variables.

The results of multiple regression analyses for the reported patrol task emphasis dependent variables are presented in Table 4.24. In order to use the organizational sub-unit variable in the analysis, dummy variables were created, because of the nominal nature of the variable. Thus, the Squad A variable is an indicator of assignment to that particular squad (0 = not assigned to Squad A, 1 = assigned to Squad A), and the Squad B variable is an indicator of assignment to that squad (same coding scheme). Only two dummy variables are used, rather than three, because the information about squad

TABLE 4.24.--Multiple Regression Analysis for Reported Emphasis Given to Different Patrol Tasks
(N = 74 survey respondents).

Patrol Tasks	Beta Weights						Signifi- cance
	Squad A	Squad B	Years School	School Major	Police Exper.	Multiple R Square	F
Checking Suspicious People	<u>.29</u>	.07	.17	-.19	-.14	.13	2.03 .086
Just Driving Around	.09	.06	-.06	.05	-.20	.04	.55 .737
Checking Business Establishments	.26	.13	.03	-.18	<u>-.24</u>	.13	1.99 .092
Checking Residential Areas	.20	.08	.07	-.13	-.15	.07	.99 .429
Checking and Enforcing Traffic	.14	.10	-.02	-.03	<u>-.32</u>	.11	1.63 .163
Talking to the General Public	.22	.17	<u>.28</u>	-.16	.11	.14	2.15 .070
Talking to Other Officers	.20	.08	.08	-.04	-.21	.08	1.11 .363

Note: The four beta weights underlined were significant at the .05 level, based on F-tests.

assignment is exhausted by the use of one less dummy variable than the total number of categories of the squad variable, which is three.⁷⁷ As described in the major field of college study section, the school major variable can be interpreted as ordinal, with higher values representing less police-related studies. For the years of schooling and police experience variables, higher values indicate longer durations of the activities.

The values of the dependent task emphasis variables are not adjusted for the multiple regression analysis as they were for the bivariate analyses. Instead, the values range from 0 to 100, with higher values indicating greater reported emphasis given to the tasks. Because the raw scores are used, it should be recognized that a respondent could report giving high emphasis to all the tasks, or low emphasis to them all, or any mixture of emphases.

As indicated in the significance column of Table 4.24, none of the seven multiple regression analyses for the task emphasis dependent variables were statistically significant at the .05 level. The largest multiple R square value, which can be interpreted as the portion of dependent variable variance explained by the independent variables, is .14, for the task of talking to the general public. For that multivariate equation the years of schooling beta weight is statistically significant, and its positive sign indicates that patrol officers with more education reported giving more emphasis to talking to the general public. Interestingly, the talking to the general public equation is also the only one of the seven for which the police experience beta weight is positive,

reporting more emphasis given to this task by more experienced officers.

In general, for the task emphasis equations the largest beta weights are associated with the Squad A and police experience independent variables. The beta weights for Squad A are all positive, indicating that officers assigned to this squad report giving more emphasis to the tasks than officers assigned to the other squads. As the values for Squad B, though small, are also all positive, it may be concluded that officers on Squad C reported less task emphasis than officers assigned to Squads A and B. With the exception of the talking to the general public task, the beta weights for police experience are all negative. This indicates that patrol officers with more years of experience reported giving less emphasis to the tasks.

The beta weights for the two school variables are, for the most part, rather small. For all but the just driving around patrol task, the weights for the school major variable are all negative, indicating that officers with more police-related major fields of college study reported giving more emphasis to the tasks. Officers with more years of schooling reported giving more emphasis to all the tasks except just driving around and checking and enforcing traffic.

When interpreting the results of this and the following multivariate analysis, it is important to keep in mind that a large number of comparisons are made, so that mere chance or

coincidence could be expected to account for some occurrences of statistical significance. In all, 55 individual beta weights and 11 multiple R square values are presented and tested for significance at the .05 level, and a total of nine instances of statistical significance are encountered. This would seem to be a somewhat higher rate of occurrence than would be expected purely due to chance, but it must be emphasized that this study was primarily exploratory, rather than designed to test hypotheses. The interpretation of the multivariate analyses, then, is more concerned with patterns of relationships and the relative strengths of variables than with particular instances of statistical significance.

The results of multiple regression analyses for the four reported patrol time allocation dependent variables are presented in Table 4.25. Two of the overall equations, for the mobile police-related and nonpolice-related dependent variables, were significant at the .05 level. The multiple R square values for the two equations indicate that the organizational and personal independent variables explain 18% and 16%, respectively, of the variance in the two patrol time allocation variables.

The only individual independent variable with significant beta weights is the Squad A variable, for which three of the four weights are significant. The signs for both of the squad variables are negative for the mobile police-related category and positive for the other three categories. Officers on these two squads, then, report spending less time on mobile police-related activities, and

TABLE 4.25.--Multiple Regression Analysis for Reported Use of Free Patrol Time (N = 74 survey respondents).

Time Categories	Beta Weights					Multiple R Square	F	Signifi- cance
	Squad A	Squad B	Years School	School Major	Police Exper.			
Mobile Police-Related	<u>-.49</u>	-.18	.04	.01	.13	.18	2.77	.025
Nonpolice-Related	<u>.31</u>	.01	.13	.11	.12	.16	2.42	.045
Stationary and Contact Personnel, Police-Related	.21	.21	-.09	-.09	-.17	.08	1.09	.373
Residual	<u>.29</u>	.06	-.10	-.11	-.12	.08	1.15	.345

Note: The three beta weights underlined were significant at the .05 level, based on F-tests.

more time on the other three categories of activities, than officers assigned to Squad C.

The beta weights for the two school variables and the police experience variable are all fairly small, positive for the mobile police-related and nonpolice-related activity categories, and negative for the stationary and contact personnel, police-related and residual categories. Thus, patrol officers with more years of school, less police-related college majors, and more years of experience report allocating more time to mobile police-related and nonpolice-related activities, and less time to the other two categories of activities.

In general, for the eleven regression analyses the personal and organizational independent variables used in this study did not explain a large portion of the variance in the task emphasis and time allocation dependent variables. The individual independent variable most strongly associated with the dependent variables in the multivariate context was the Squad A organizational variable. Within the multivariate context, then, the single best predictor of an officer's reported task emphasis or time allocation would be whether or not the officer was assigned to Squad A. The second strongest independent variable was years of police experience. The beta weights for the two school variables were generally small. Overall, 55 individual comparisons were tested at the .05 level in the multivariate context, and seven were found to be statistically significant. This is somewhat higher than would have been expected merely due to chance.

The Nature of Police Patrol Work

In Chapter II, a review of numerous patrol task and time consumption studies was presented. It was pointed out that inference from these studies to the nature of police work was common but often unjustified. Among the weaknesses of the studies were reliance only on calls from citizens, counting of incidents but not time consumption, failing to consider free patrol time utilization, definitional difficulties, and generalizing about policing from analysis of only patrol. Because of these considerations, it was argued that conclusions such as "police work is 85% service related" or "police officers spend 90% of their time dealing with noncriminal matters" could not be justified on the basis of the studies conducted to date.

The observation and survey study conducted in Lansing attempts to avoid some of the weaknesses of earlier research. The utilization of all patrol time was investigated, including free patrol time, self-initiated tasks, administrative details, and breaks. Because only patrol time was studied, however, it is important that generalizations be limited to the nature of patrol work, rather than to the broader question of the nature of police work.

The analysis of the Lansing data presented thus far has consisted of detailed description of the use of free patrol time, and comparisons with other studies of the nature of patrol work. The comparisons used the activity categories from the previous studies, as best they could be understood from the reports. As noted, though, a number of difficulties with the kinds of categories often used have

been raised. In Table 4.26 the Lansing observation data concerning the use of police patrol time is presented in a new framework believed to be less susceptible to previously encountered definitional difficulties.

The categories used in Table 4.26 need to be carefully defined before the analysis is discussed. The administrative and breaks category refers to patrol officer down-time, which included time in headquarters and in the field during which the officer was taking breaks or responding to administrative procedural requirements. An example may help clarify the latter part of this definition. In an instance of a reported burglary and subsequent arrest, time spent interviewing victims and witnesses, otherwise collecting information, making the arrest, and interrogating the suspect would not be included in the administrative and breaks category. Time spent merely reporting the incident and routinely processing the arrested suspect would be classified as administrative time. No argument is made here that these latter activities are unimportant; the intention of the time use classification system is to more accurately describe how patrol officer time is utilized, not to infer any hierarchy of value or to suggest that any category represents wasted time.

The reactive/proactive distinction refers to the source of the activity or task performed. Time spent reactively is time spent on activities and tasks originated by citizen requests for police action, whereas proactive time is time spent on the initiative of the police. Most reactive time is accounted for by police response

TABLE 4.26.--Observed Nature of Police Patrol Work in Lansing
(N = twenty 8-hour tours).

Time Use Category	Average Minutes Per Tour	Percent of Total Time
Reactive Crime-Related	59.3	12.3
Reactive Noncrime-Related	11.4	2.4
Reactive Ambiguous	<u>53.6</u>	<u>11.2</u>
TOTAL Reactive	124.3	25.9
Proactive Crime-Related	2.0	0.4
Proactive Noncrime-Related	7.2	1.5
Proactive Ambiguous	<u>135.3</u>	<u>28.2</u>
TOTAL Proactive	144.5	30.1
TOTAL Crime-Related	61.3	12.7
TOTAL Noncrime-Related	18.6	3.9
TOTAL Ambiguous	188.9	39.4
Administrative and Breaks	211.4	44.0

to citizen telephone calls, although occasionally citizens walk into police stations seeking assistance, and also occasionally citizens will flag down police officers on patrol and make requests. Proactive time is composed of free patrol time spent actually patrolling or handling self-initiated tasks.

The distinction made in Table 4.26 between crime-related, noncrime-related, and ambiguous categories of patrol time utilization represents the greatest departure from previous studies. The crime-related category refers to time spent on activities and tasks

that clearly involved criminal matters, such as investigating burglaries and other crimes, serving arrest and search warrants, and answering alarm and prowler calls. The noncrime-related category similarly pertains to clearly noncriminal matters, such as pure public relations contacts, assisting ambulances, assisting stranded motorists, and handling barking dog calls. The ambiguous category refers to patrol time spent on reactive and proactive activities that are not clearly either crime- or noncrime-related. These kinds of activities included patrolling, handling traffic matters, answering noise and domestic calls, and assisting other police units.

As shown in Table 4.26, the time use category accounting for the largest portion of patrol time in Lansing is the administrative and breaks category. This down-time category accounted for 44% of total patrol time. During this large portion of time officers were taking breaks or routinely complying with administrative procedures. The two aspects of this time use category each contributed about one-half of the average of 211 minutes per tour allocated to the category.

The remaining portion of patrol time not accounted for by the administrative and breaks category was divided almost evenly between reactive and proactive activities. Most of the proactive time, of course, was time spent patrolling, whereas most of the reactive time was time spent handling calls from citizens. Almost all of the proactive patrol time was given to activities classified as ambiguous, including particularly patrolling and traffic

enforcement. The largest portion of the reactive patrol time, however, was classified as crime-related, with the ambiguous portion nearly as large, and the noncrime-related portion much smaller.

Combining categories across the reactive/proactive dimension provides a picture of patrol work somewhat different from that derived from earlier studies. Rounding to whole figures, patrol work in Lansing is 44% down-time, 39% ambiguous, 13% crime-related, and 4% noncrime-related. Based on these figures, the outstanding feature of patrol work would seem to be that it is not greatly involved with activities that are either clearly crime-related or clearly noncrime-related. The largest portion of patrol time is spent on breaks and administrative activities, while most of the time spent on "real police work" involves ambiguous activities that are not clearly crime- or noncrime-related. The figures from Lansing forcefully demonstrate that descriptions of patrol work such as "police officers spend 90% of their time on noncriminal matters" are misleading and inaccurate. Instead, police patrol work is better characterized as involving the handling of ambiguous situations, along with a generous measure of time spent taking breaks and handling administrative tasks.

Summary

Observations of the use of patrol time in Lansing revealed that approximately 45% of patrol time is committed, or consumed by assigned calls and administrative details. Of the 55% of patrol time left uncommitted, taking breaks and patrolling each accounted

for about two-fifths, while the remaining one-fifth of free patrol time was spent meeting other officers and handling self-initiated tasks. The use of patrol time in Lansing was compared to reports of earlier studies, using the categories and definitions of the previous works, and in general the similarities outnumbered the differences.

A comparison of observed patrol time use and officer self-reported patrol time allocation in Lansing showed some important differences. As compared with the observations, the self-reports indicated much less time spent on residual and nonpolice-related activities, and much more time spent on stationary and contact personnel, police-related activities. The interpretation of this situation was that officers over-estimated the time spent writing reports; under-estimated the time spent traveling to and from their assigned beats and getting cars and radios serviced and repaired; and both under-estimated and under-reported the time spent on nonpolice-related activities. The major implication of this finding is that, at least for research purposes, self-reporting of patrol time use may not be a satisfactory means of generating data.

The observation and survey data suggested that patrol time use varies considerably by time of day. As compared with the other shifts, the day shift is characterized by the greatest time allocations to patrolling and residual activities (repairs, court, etc.), and the greatest emphasis given to traffic enforcement, just driving around, and talking to the general public. The afternoon/evening shift occasions the greatest time allocation for handling

self-initiated tasks, and the activities of checking suspicious people and enforcing traffic laws are emphasized. During the night shift, time allocated for breaks and other nonpolice activities reaches its highest level, while the most emphasized tasks are checking business establishments and suspicious people.

The survey data were analyzed in an effort to assess the extent to which reported patrol time allocation and task emphasis could be explained by personal and organizational variables. In general, these variables were not strongly correlated with the time allocation and task emphasis dependent variables, either individually or in combination. Of the independent variables, those with the most explanatory power were squad assignment and years of police experience.

Finally, the observed use of patrol time in Lansing was classified according to a set of categories that included an ambiguous classification for activities that, although work-related and performed in the field, were not clearly either crime- or noncrime-related. These were activities such as patrolling, traffic enforcement, and domestic calls that sometimes are crime-related, sometimes are not, and sometimes can be either depending on the police action taken. The vast majority of patrol time was found to be accounted for by this ambiguous category and the administrative and breaks category. Time spent on activities clearly crime- or noncrime-related was relatively slight (13% and 4% of patrol time, respectively). Consequently, characterizations of the nature of police work, and especially of patrol work, should emphasize

the ambiguous quality of much of the work, rather than its crime- or noncrime-relatedness.

FOOTNOTES--CHAPTER IV

⁷⁵That is, this portion of time has nothing to do with criminal matters and is used to provide such assistance to individuals as messenger and escort service, transportation, and finding lost persons.

⁷⁶Hoover, "Evaluating the Impact of Education Upon Police Performance," and Hudzik, "College Education for Police: Problems in Measuring Component and Extraneous Variables."

⁷⁷Fred H. Kerlinger and Elazar J. Pedhazur, Multiple Regression in Behavioral Research (New York: Holt, Rinehart and Winston, 1973), pp. 105-109.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

A summary of the research study and conclusions based on the findings are presented in this chapter. The chapter summary includes discussion of the purpose of the study, the research method used, and the results of the data analysis. Following a discussion of some limitations of the study, conclusions and recommendations for future research are presented.

Purpose

The primary purpose of the study was to determine how police patrol officers spend their uncommitted, or free, patrol time. Although numerous studies have examined and characterized the call-for-service aspect of patrol workload, and although recent research has raised serious questions about the effectiveness of traditional preventive patrol, very little research has been focused on police use of free patrol time. Because an accurate description of what police officers actually do during their uncommitted patrol time is not available, preventive patrol is not a well understood activity. Until we learn what behaviors constitute the activity, and how the behaviors relate to outcomes, it means little to say that it is ineffective.

In addition to determining in a general way how police officers use their free patrol time, the study had a secondary purpose of investigating how patrol time use was related to time of day, organizational assignment, and personal variables. It was suspected that the use of free patrol time might vary by shift, squad assignment, educational level, field of college study, and length of police experience.

Method

The use of free patrol time was studied using both observations and a survey in one medium-sized city, Lansing, Michigan. The observation phase of the study consisted of twenty "ride-alongs" with regular patrol officers for entire eight-hour tours of duty. A total of eleven different patrol officers were observed, with three being observed more than once. The selection of officers to be observed was not random; patrol supervisors chose the eleven officers to be observed after the researcher chose the times of the observations, and the researcher chose the three officers accompanied for additional tours based primarily on their willingness to accommodate the study. During the observations a detailed account of time utilization was kept by the researcher.

Following the observation phase of the study, a survey was administered to patrol officers assigned to the patrol division of the Lansing Police Department. Questionnaires were distributed to 79% of the patrol force, and 83% of these were completed and returned. The survey contained items measuring reported patrol

time allocation among several categories, and reported emphasis given to selected tasks during free patrol time. These measures of time allocation and task emphasis pertain to somewhat different aspects of free patrol time utilization, of course. Reported emphasis given to the task of checking suspicious people, for example, might not necessarily mean that a great deal of time was devoted to the activity. Though the task was given high priority, the relative infrequency of encounters with suspicious people might result in little time being allocated to the activity.

The study of police use of free patrol time in Lansing was designed as exploratory research. In place of detailed hypotheses, six research questions were used. These questions related to describing police use of free patrol time, and investigating the influence of time of day, squad, and personal variables on patrol time utilization.

Because of the small sample and irregular sampling method, the analysis of the observation data was limited to simple descriptive statistics. The observation data was compared to previously published studies and to the Lansing survey data, in order to assess its representativeness. The survey data was also descriptively analyzed, and compared to previous studies as appropriate. In addition, bivariate and multivariate analyses were conducted with the survey data, in order to assess the salience of the squad and personal independent variables.

Results

The first six findings listed below relate specifically to the research questions used in the study. The remaining findings pertain to additional results of the research.

1. Approximately 55% of the patrol time in Lansing was uncommitted. Of that free patrol time, 39% was spent on different types of patrolling, and 39% was spent taking breaks. The patrolling time was primarily spent driving at medium speed on main streets in business areas, and secondarily at slow speed on side streets in residential areas. The remaining 22% of free patrol time was divided between handling self-initiated tasks and meeting other officers.

2. The use of free patrol time in Lansing varies considerably by time of day. During the day shift more time is spent patrolling, during the afternoon shift handling self-initiated tasks is allocated more time, and during the night shift more time is consumed taking breaks. Also, during the night shift much less time is spent on residual activities. Patrolling speed decreases as the day wears on, and a greater portion of patrolling time is spent in business areas. Reported task emphasis differs by time of day as well.

3. The use of free patrol time in Lansing varies by patrol squad. Observed differences between the squads were not dramatic, but self-reported patrol time allocation and task emphasis varied considerably between the squads. Overall, the squad variable had the strongest correlations with the patrol time use and task emphasis measures of any of the independent variables.⁷⁸

4. Patrol officers' years of schooling does not account for a large portion of their reported patrol time allocation or task emphasis. Although the degree of association was not strong, patrol officers with more years of schooling reported giving more emphasis to all of the tasks. In the multivariate context, years of school had a statistically significant positive beta weight for the dependent talking to the general public patrol task.

5. Patrol officers' major field of college study does not account for a large portion of their reported patrol time allocation or task emphasis. In general, officers with more directly police-related fields of college study reported giving more emphasis to the patrol tasks and spending less time on nonpolice-related activities. The correlations were not strong, however.

6. Patrol officers' years of police experience also does not account for a large portion of their reported patrol time allocation or task emphasis, although this variable is more strongly correlated with the dependent measures than are the two school variables. In general, officers with more years of experience reported giving less emphasis to the patrol tasks and spending more time on nonpolice-related activities. For the checking business establishments and checking traffic multiple regression analyses, the years of police experience variable had statistically significant negative beta weights. In terms of relative task emphasis, more experienced officers reported giving more of their effort to checking suspicious people and talking to the general public than did other officers.

7. Characterization of police work as crime- or noncrime-related obscures the ambiguous quality of most of what patrol officers actually spend their time doing. In addition to spending a considerable portion of their time taking breaks, patrol officers in Lansing engage in numerous activities that can be either crime- or noncrime-related, depending on who defines them and how they are handled. The clearly crime- and noncrime-related portions of patrol time were found to be only 13% and 4%, respectively.

8. In general, the nature of the patrol workload and the use of patrol time in Lansing is comparable to that reported in various earlier studies conducted in other jurisdictions.

9. At least for the kinds of time use categories utilized in the Lansing study, observations seem to yield more accurate information than does self-reporting through surveys. Officers tend to under-estimate time allocated to various residual activities and over-estimate time consumed by report writing. Also, whether because of under-estimation or deliberate under-reporting, officers greatly downplay the amount of patrol time spent on nonpolice-related activities.

Limitations of the Study

One limitation of this study was its restriction to a single site. Where the data could be compared to reports of earlier studies in other jurisdictions, the similarities seemed more numerous than the differences, but most of the comparisons were of committed, rather than uncommitted, patrol time. Lansing would seem to be a typical medium-sized midwestern city, with an administratively modern but operationally traditional police department. It

is quite possible, if not likely, that police use of free patrol time in small towns, rural areas, big cities, and other "types" of police departments differs from that in Lansing. Whether the use of free patrol time differs more between jurisdictions or between individual officers in a single department is an interesting, but unresolved, question.

Another limitation of this research was the small sample and irregular sampling method used in the observation phase. Again, the comparability of the observation data to other studies suggests that fairly representative information was collected, but any conclusions based on the observations must be tentative.

The use of the survey data to assess the relationships between organizational and personal variables, on the one hand, and the use of free patrol time also limited the research. This study and others suggest that self-reports of patrol time use are not very reliable. Given this situation, the analysis using the organizational and personal variables should be regarded as having tested the relationships between these variables and what police officers said they do with their free patrol time. To the extent that the correlation between reported free patrol time use and actual free patrol time use is not 1.0, the analyses do not reflect actual patrol behavior.

Conclusions

During the typical tour of duty in Lansing, patrol officers have 4.3 hours of free patrol time, of which they spend about 100

minutes patrolling and 50 minutes handling self-initiated tasks. The rest of the free patrol time (110 minutes) is spent meeting other officers and taking breaks. This is the simplest and most straightforward presentation of police use of free patrol time in Lansing.

The use of free patrol time varies by time of day, however, and to a lesser extent between squads and officers with different personal characteristics. Individual variability was particularly noticeable during the observation phase of the study. Some officers used their free patrol time to study for college courses, some to meet and talk with personal friends in the community, some to enforce traffic laws (one officer stopped 15 cars during a tour, while during many tours officers being observed made no traffic stops at all), and some to closely check business establishments in their beats. It was clear that some officers regarded free patrol time as "wasted" time between calls, whereas other officers saw free patrol time as an opportunity to perform useful or interesting work-related activities.

The findings from this study support the notions that police officers are granted wide discretion in choosing how to use their free patrol time, and that they use the discretion in an individualized way. This suggests that the police socialization process does not operate as forcefully with respect to the use of free patrol time as with, for example, norms of solidarity and secrecy.⁷⁹ With respect to the latter, police officers learn quickly that their agency's dirty linen is not to be washed in public, and that loyalty

to fellow officers is a highly rewarded trait. Norms governing these behaviors are strong and widely accepted within police organizations. Apparently, however, free patrol time utilization is not regarded as a critical matter, or as threatening to the social order of the police organization. Neither informal norms nor formal directives tightly govern the use of free patrol time by police officers.

Because police use of free patrol time is so varied, it is not very instructive to say that preventive patrol is or is not effective. As this study has shown, preventive patrol is not an homogeneous treatment to which an effect can be attributed. Preventive patrol means letting each individual police officer decide how to use free patrol time, and the resulting behaviors are diverse. The effect of preventive patrol, or lack thereof, may be due to the time spent patrolling, the time spent on self-initiated tasks, the time spent taking breaks, or some combination of these activities and their components.

Many police departments are now experimenting with directed forms of patrol that require officers to perform specified tasks in specified locations during their free patrol time. This approach is designed from the perspective that free patrol time is a valuable resource to the police organization, and that police management can identify better ways of using free patrol time than can individual officers. As with many kinds of police activity, however, the capacity of managers to direct is much greater than the capacity to control. This becomes especially important with respect to an

activity such as directed patrol, which diminishes the job freedom of patrol officers and thus may arouse job dissatisfaction and resistance feelings.

The results of this study suggest a second, less drastic approach to directing and controlling police use of free patrol time. This alternative means of changing free patrol time use would utilize the regular police management and socialization process. The preferred ways of using free patrol time could be presented during recruit and in-service training, command and supervisory attention could be given to providing direction and control for the activity, field training officers could be chosen on the basis of preventive patrol diligence and expertise, and the police reward structure could be altered to reflect a commitment to the preferred ways of using free patrol time. These suggestions seem rather obvious and mundane, but they are not in general use in policing today. Police literature, training, and management are focused much more intently on handling calls-for-service than on the use of free patrol time, to the detriment of the latter.

Recommendations for Future Research

The primary research need with respect to preventive patrol is for effectiveness evaluations of the component behaviors of the activity. That is, police managers need to know the results and effects of such tactics as field interrogations, rigorous door-checking, traffic stops, covert surveillances of places and things, talking to the general public, just riding around, and similar

activities. Each of these tactics may have different effects on apprehension productivity, crime rates, citizen fear of crime, citizen satisfaction with the police, police ability to perform other services, and offender perceptions of crime risk. Police managers and policy-makers need information about these consequences when they make decisions, design training, and otherwise provide direction to police officers concerning how to use free patrol time. Once research begins to provide such information, of course, police managers and their superiors will still have difficult decisions to make. The use of field interrogations, for example, may increase apprehensions and suppress crime, but also antagonize certain law-abiding segments of the community.⁸⁰ Decisions concerning police tactics are frequently political decisions at base, involving value considerations, and should be recognized as such. Research should be able to inform the decision making process, however, even if it cannot present problem-free solutions.

Additional research is also needed to develop a better description and understanding of preventive patrol and how free patrol time is used. This study was limited to one site, and the observation phase consisted of only twenty eight-hour tours of duty. A more comprehensive description based on additional observations might lead to the identification of a small number of general "patrol styles." If these styles were sufficiently standardized, they might serve usefully as the basis for effectiveness research along the lines described above.

Another avenue for study is the search for predictors of police use of free patrol time. This research was not particularly successful in that regard, but the basis of the analysis was solely survey data. Any extensive observation study of police use of free patrol time should also collect personal and organizational data, in order to facilitate prediction and explanation. In addition to its academic value, the identification of reliable predictors would have important implications for police recruitment and selection.

Finally, additional research is needed to determine the accuracy of self-reported use of free patrol time, and to identify conditions and methods under which self-reporting is more accurate. If methods and conditions can be devised under which information taken from activity reports can be relied upon, the research and operational benefits would be tremendous. Great amounts of data could be generated very cheaply, and sophisticated analyses would be possible. At present, however, the severe deficiencies in self-reported data make it ill-suited for research into police use of free patrol time.

FOOTNOTES--CHAPTER V

⁷⁸The possibility of intra-squad collusion in completing the questionnaires seems remote. The questionnaires were distributed to patrol officers at roll call line-ups, and collected eight hours later at the end of the shifts. Almost all of the officers were assigned to one-man cars, and meetings between officers in the field were relatively infrequent. Comments made to the researcher by patrol officers indicated that they had taken the survey seriously, and no evidence of collusion was found.

⁷⁹William A. Westley, Violence and the Police: A Sociological Study of Law, Custom and Morality (Cambridge, MA: M.I.T. Press, 1972).

⁸⁰See John E. Boydston, San Diego Field Interrogation: Final Report (Washington, D.C.: Police Foundation, 1975) for an analysis of the effects of field interrogations--the author calls for replications of the study, which was limited to one small section of one city, but none have been conducted.

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