THE CRIMINAL INVESTIGATION PROCESS VOLUME II: SURVEY OF MUNICIPAL AND COUNTY POLICE DEPARTMENTS

PREPARED UNDER A GRANT FROM THE NATIONAL INSTITUTE OF LAW ENFORCEMENT AND CRIMINAL JUSTICE, L.E.A.A., DEPARTMENT OF JUSTICE

JAN M. CHAIKEN R-1777-DOJ OCTOBER 1975

Rand
SANTA MONICA, CA. 90406

The research described in this report was prepared for the Department of Justice, Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice, under Grant 73-NI-99-0037-G. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

Published by The Rand Corporation

148117

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PREFACE

This report is the second in a series of volumes resulting from a two-year study of police criminal investigation practices and their impacts. The study, supported by a grant from the National Institute of Law Enforcement and Criminal Justice of the Law Enforcement Assistance Administration, U.S. Department of Justice, had four objectives:

- To describe, on a national scale, current investigative organization and practices.
- To assess the contribution that police investigation makes to the achievement of criminal justice goals.
- To ascertain the effectiveness of new technology and systems being adopted to enhance investigative performance.
- To reveal how investigative effectiveness is related to differences in organizational form, staffing, procedures, etc.

Volume I of the series (R-1776-DOJ), *The Criminal Investigation Process: Summary and Policy Implications*, summarizes and synthesizes the overall findings of the study and draws policy-relevant conclusions and recommendations. This report should be of interest to police officials and to other criminal justice practitioners, such as prosecutors and judges, whose work brings them in contact with criminal investigators.

The present volume, *The Criminal Investigation Process: Survey of Municipal and County Police Departments*, reports on the responses of police departments with more than 150 employees to a national survey. Differences among departments with regard to policies, resources used, and operational characteristics are identified and then related to standard gross performance statistics such as crime, clearance, and arrest rates. This report should be of interest to both police officials and the criminal justice research community.

Volume III of the series (R-1778-DOJ), *The Criminal Investigation Process: Observations and Analysis*, presents a comprehensive description of the criminal investigation process (based on all data gathered

in the course of the study) and an analysis of those issues that can be illuminated by quantitative evidence. This report is directed primarily to researchers but may also be of interest to police officials who wish to examine the details of the analysis supporting the findings reported in Volume I.

The members of Rand's research team who participated in the design and administration of the survey instrument described in the present volume were Sydney Cooper, Peter Greenwood (project director), Konrad Kellen, Sorrel Wildhorn, and the author.

The data showed that certain department characteristics having no direct relationship to the organization of its investigative function are strongly correlated with arrest and clearance rates. First, we found differences among geographical regions of the country in regard to arrest and clearance rates; these do not appear to be a consequence of organizational differences. Second, and more important, is the fact that most departments with high crime workload (number of reported crimes per police officer) tend to have lower arrest rates than departments with low workload. The latter observation conforms to the conventional belief that a city can increase its number of arrests or decrease its crime rate (or both) by hiring additional police officers.

However, departments with a high crime workload tend to claim more clearances for each arrest than cities with low crime workload, so that clearance rates are less sensitive to crime workload than arrest rates. Essentially what happens is that the number of clearances produced by a police officer in a year increases just about in direct proportion to the crime workload, but the number of arrests per police officer per year increases less rapidly than the workload. Since these patterns are related to the total number of police officers, and the number of investigators tends to be more or less proportional to the total number of officers, it is difficult, using aggregate data, to isolate the particular contribution of investigators.

Nonetheless, controlling for the crime workload of all officers together, the data did show that the larger the proportion of investigators on the force, the higher is the number of arrests and clearances per police officer. This conforms to the well-known fact that the average investigator makes more arrests and clearances per year than the average patrol officer. However, only in the case of burglary was this effect large enough to lead to a significant increase in clearance rates with increases in the relative numbers of investigators, and in no case were arrest rates significantly increased. Thus, if the total number of officers in a department is kept constant, while a greater or lesser proportion of them are assigned to investigative duties, we cannot assert that there will be any important change in overall arrest and clearance rates.

rather that traditional practices prevail in most parts of the country. For example, the practice of assigning investigators to small geographical areas, rather than having all of them work out of central headquarters, is followed in only a small number of well-known departments. Most departments do not have any separate geographical commands, and even among those that do have such commands, the majority assign all investigators to a central location.

Nearly all city departments have a special title for police officers who are assigned primarily to investigative duties (e.g., "detective," "inspector," or "investigator"), although many county police departments do not distinguish their investigators by title. The traditional practice has been that the special title, which usually carries a higher rate of pay than the rank of patrol officer, could be conferred upon an officer at the sole discretion of the chief of police, who could also remove the title without explanation. More recently, recommended personnel practices involve following civil service procedures for appointing officers to the special title. The survey revealed that traditional noncivil-service appointment practices for investigators prevail in most departments, with the major exceptions being middle-sized cities and departments located in the center of the country.

Not only does the investigator's job commonly lack formal status and tenure, but it is also usually viewed as not requiring special training before beginning work. Most departments give no training whatsoever to officers at the time they are first assigned to investigative duties, relegating all instruction to "on-the-job" training and subsequent refresher training. The departments that did report a training program for new investigators usually had either one or two weeks of training, with the longest being 12 weeks. This is to be contrasted with the typical training program for newly recruited patrol officers, which often lasts six months or more. (Some investigative training is nearly always included in this initial recruit period, but it covers only such information as would be needed by patrol officers.)

DESCRIPTIVE INFORMATION: RESOURCES AND ORGANIZATION

While there do not appear to be any recognized standards or procedures for deciding how many officers in a police department should

be assigned to investigative duties, the survey showed that variations among departments in this regard are not very large. The average department assigns 17.3 percent of its sworn personnel to investigative units, with only one-fourth of departments below 14 percent and one-fourth above 20 percent. The largest commitment to investigation found in any *city* police department was 31 percent of the force. Generally, departments with less than 10 percent of their force in investigative units could be characterized as assigning a major investigative role to the patrol force, and therefore the actual amount of resources devoted to investigation was over 10 percent. However, the traditional practice of limiting the patrol officer's role in relation to reported crimes to preparation of crime reports, securing crime scenes, and arresting perpetrators at the scene is still followed in most departments.

Investigative units can be distinguished according to whether they are primarily directed at investigation of reported crimes (homicide, robbery, larceny, etc.) or they are directed at other duties (vice investigation, organized crime control, surveillance, etc.). The survey showed that about 78 percent of investigative personnel are devoted to the former function, although variations among departments are larger here than they are in regard to total resources assigned to the investigative function.

A major controversy within the police field concerns the relative effectiveness of specialized investigators (those who work on a specific crime type, such as rape) and generalist investigators (who handle a wide mixture of cases). Very few departments currently adhere totally to the generalist concept. The most common specialized units are juvenile units, vice and narcotics units (either separate or together), organized crime units, and auto theft units. Perhaps more surprising than the widespread presence of these four types of units is the fact that some 25 to 50 percent of departments operate without one or more of them.

Other descriptive information collected in the survey concerned interactions between investigators and other criminal justice agencies, criteria for evaluating investigative performance, and resources devoted to support functions related to investigation (evidence technicians, special data files, information systems, and the like).

The data showed that certain department characteristics having no direct relationship to the organization of its investigative function are strongly correlated with arrest and clearance rates. First, we found differences among geographical regions of the country in regard to arrest and clearance rates; these do not appear to be a consequence of organizational differences. Second, and more important, is the fact that most departments with high crime workload (number of reported crimes per police officer) tend to have lower arrest rates than departments with low workload. The latter observation conforms to the conventional belief that a city can increase its number of arrests or decrease its crime rate (or both) by hiring additional police officers.

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Nonetheless, controlling for the crime workload of all officers together, the data did show that the larger the proportion of investigators on the force, the higher is the number of arrests and clearances per police officer. This conforms to the well-known fact that the average investigator makes more arrests and clearances per year than the average patrol officer. However, only in the case of burglary was this effect large enough to lead to a significant increase in clearance rates with increases in the relative numbers of investigators, and in no case were arrest rates significantly increased. Thus, if the total number of officers in a department is kept constant, while a greater or lesser proportion of them are assigned to investigative duties, we cannot assert that there will be any important change in overall arrest and clearance rates.

In regard to specialization of investigators, the data did not reveal any significant relationship between the overall commitment of the department to specialization (i.e., the fraction of investigators in specialized units) and arrest or clearance rates, when all other relevant variables were controlled for. However, for the specific crimes of burglary and robbery, the data showed that departments having such a specialized unit have lower arrest rates for the crime in question, with no effect on clearance rates. While these findings are not very decisive, they do indicate that specialized units cannot be expected to produce substantially better arrest and clearance rates in the crime categories on which they specialize.

The amount of training in investigation given to newly recruited patrol officers or newly appointed investigators was not found to be related to arrest or clearance rates, while the amount of refresher training was related to increasing clearance rates, but not arrest rates.

Respondents to the survey were asked to indicate how frequently various types of evidence are searched for at crime scenes. These self-reported estimates tended to be generally optimistic and showed no relationship to the relative amount of resources devoted by the department to evidence technicians. In addition, neither the number of evidence technicians nor the reported amount of evidence search at crime scenes was significantly related to arrest rates, clearance rates, or the rates at which felony crimes are rejected by prosecutors.

Many other variables describing the organization of the investigative function were also found to lack meaningful relationships to clearance and arrest rates. In sum, then, a city's clearance and arrest rates depend primarily on its crime rate and the total size of its police force, and are not affected in a major way by details of the investigative operations in the police department. The third volume from Rand's study of the criminal investigation process, which is based on much more detailed data than can be collected in a survey, confirms this observation and indicates why it is true.

ACKNOWLEDGMENTS

We especially want to thank the employees of 153 police departments around the country who cooperated with us and provided the information that is summarized in this report. In addition, we are grateful to FBI Director Clarence Kelley, who authorized release of Uniform Crime Reporting data for the purposes of this study, and to Andrew McKean, who supplied us with the data tapes.

The computer processing required for this study was quite extensive, involving the merging of files from several sources and the storage of so many variables that the capabilities of standard statistical packages were stretched to the limit. All this programming work was ably completed by Robert Young. In addition, detailed coding and conversion of text files was performed by Robert Castro and Kathleen O'Hare. Assistance in designing the format of the survey instrument and associated materials was provided by the Rand Survey Research Group under Deborah Hensler. Management of the system for tracking the status of questionnaires and preparation of follow-up correspondence was handled by Bernice Jacobs. Helpful comments on an earlier draft were provided by Paul Berman, David de Ferranti, and Bernard Greenberg.

CONTENTS

I. INTRODUCTION

Rand's analysis of the criminal investigation process describes and compares alternative approaches to investigation and identifies the relative effectiveness of various organizational styles, investigative management procedures, and use of technical or information resources. Data for this project come primarily from site visits in several cities, detailed observation of investigators' activities, and specially collected case-related information that is not ordinarily documented or tabulated by police departments.

The survey described in this volume was conducted prior to any on-site data collection and provided a wide range of information about the investigative process in municipal and county police departments in the United States. Only information commonly available to each department can be collected in this way, but even certain elementary facts--such as the typical size of investigative units--has not previously been summarized on a nationwide basis.

Although survey data are subject to errors that may be difficult to detect, more departments can be included in a survey than with on-site data collection. This report describes how Rand's survey was conducted and summarizes the findings. In addition to providing the portrait of the investigative process documented here, the survey also served other purposes of the project, such as identifying police departments that have particularly imaginative innovations related to investigation, new practices that the departments viewed as especially successful, or unique data resources of interest for further analysis.

The limitations of a survey are particularly apparent in connection with measures of performance. The performance statistics commonly tabulated by police departments (such as arrests and clearances) are widely understood to be inadequate measures of investigative effectiveness, and yet it is not possible to ask departments responding to a survey to calculate statistics that they do not have. Therefore, the findings presented here are basically descriptive in nature, even when organizational characteristics of departments are compared with arrest

and clearance rates. These comparisons, which for the most part reveal a lack of significant relationship where one might be expected, raise questions about investigative operations and about the crime reporting system itself that are explored in more detail in the third volume of this study.(1)

The present report begins with a description of how the survey was conducted and the patterns of response. Chapter III summarizes the information obtained in answer to the questions on the survey instrument. The topics covered include the amount of resources (e.g., number of officers) assigned to the investigative function as a whole and to various components of this function; the organization, training, and supervision of investigative personnel; the role of patrol officers and nonpolice criminal justice agencies in the investigative process; and the availability of technical resources used to assist investigations, such as evidence technicians and information systems. Finally, Chapter IV discusses the relationships we found among various characteristics of the departments that responded to the survey.

II. SURVEY DESIGN AND PATTERNS OF RESPONSE

SURVEY UNIVERSE

In this survey we attempted to contact every municipal or county police department that had 150 or more employees (sworn plus civilian) at the end of 1972 or served a jurisdiction with 1970 census population over 100,000. This particular survey universe was selected for three primary reasons:

1. Since very small police departments have a limited number of choices as to how they will organize their investigative function, and a written report describing these choices would be of little interest, we decided to establish a size threshold and survey only those departments that were above the threshold. The number of employees in the department is a reasonable measure of its size, and other measures (such as total budget) would have led to essentially the same survey universe.
2. The resources available for this study permitted a total of approximately 300 departments to be included in the survey. By inspecting available data sources (namely, the *Uniform Crime Reports* published by the Federal Bureau of Investigation), it was possible to determine that there were about 300 departments having 150 or more employees. Therefore, the threshold was set at 150 employees.*
3. Since some departments do not report their number of employees to the FBI, all departments serving a jurisdiction with population over 100,000 were included, so that we would be unlikely to miss any departments with 150 or more employees.

In most surveys, a fairly large universe of study is selected, and then only a small sample out of this universe is actually contacted to

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*The survey was designed in 1973, which is the reason for using 1972 data concerning the number of employees.

fill out the survey questionnaire. Such a design was not appropriate for our survey because we wanted to assure that *every* department that had innovative investigative organization, operations, or data files would come to our attention if it wished to respond to the survey. We therefore sent the survey instrument to all municipal and county police departments that met the size criteria mentioned above. State police departments, highway patrols, and special-district departments (such as park police) were the only ones excluded.

The resulting list, which is shown in Appendix A, consisted of 69 county police departments or sheriff's offices and 231 city police departments. This is a total of exactly 300 departments, which is somewhat accidental, since our selection criteria were merely intended to capture *approximately* 300 departments. In summary, then, we conducted a 100 percent survey of a universe consisting of *all municipal and county police departments having 150 or more full-time employees or serving a city with a 1970 census population over 100,000.*

DESIGN OF SURVEY INSTRUMENT

The survey instrument was prepared in two versions. One, reproduced in Appendix B, was designed for administration by mail. The other version was designed for administration by interview and captured substantially more detailed information. The first draft of the instrument was prepared in consultation with the entire staff of Rand's criminal investigation project and was reviewed by independent law enforcement experts and by the project's contract monitors at the National Institute of Law Enforcement and Criminal Justice. After revision, the next draft was pretested with the cooperation of four city police departments and one county police department. These departments suggested changes for purposes of clarity and indicated the time required to answer various questions. This led to further revisions and the omission of certain questions of marginal interest that were difficult or laborious to complete.

This third draft was further modified by Rand's Survey Research Group for ease of administration and keypunching. This entire process required approximately two months' elapsed time. The final version

was submitted to the Office of Management and Budget for approval, a process that required several additional months. The OMB-approved version is the one shown in Appendix B.

ADMINISTRATION

This survey was conducted during the first half of 1974. A total of 29 questionnaires were administered through on-site interviews by members of the Rand staff. The criteria used to select these departments included proximity to one of Rand's offices, a reputation for effective or innovative investigative methods, or known availability of special data-collection procedures that might be suitable for analysis by the project team. All but one of the departments that we contacted to request cooperation with an on-site interview agreed to participate in the study.

The remaining 271 departments were contacted by mail addressed to the chief (by name, where known). The mailed packet contained the survey instrument, a cover letter with attachments explaining the study and confidentiality conditions (Appendix C), and a postcard (Appendix D) permitting the chief to indicate whether his department would respond, and by what date. If no postcard was received after a short period of time, a follow-up letter (Appendix E) was sent. The postcards were useful in permitting us to remind departments to return their questionnaires, if they had already indicated they would cooperate, while avoiding a second contact with the remaining departments.

For readers interested in survey design, we make the following observations. The use of a follow-up letter, which is known to be good practice in surveys of all types, again proved its value in this case by increasing the response rate by about one-quarter. Use of the chief's name on the envelope, rather than simply a title such as "Chief of Police," proved to be important by virtue of the absence of any responses from those few departments where the name of the current chief was not known to us. Indeed, some of these departments indicated on their postcards that they would not respond because we had not bothered to find out the name of the chief.*

*The fact was that we had made a considerable effort to search for names of appropriate addressees, using publications of organizations

Some negative consequences, however, resulted from using the names of addressees, in that turnover among police chiefs is fairly rapid, and in some cases we used the name of the current chief's predecessor. This led to exasperated communications or, worse, transmittal of the packet to the ex-chief. Problems with the U.S. Postal Service or internal mail delivery led to approximately five cases known to us in which the questionnaire never reached its intended recipient or the completed questionnaire never arrived at our offices.*

PROCESSING OF RETURNED SURVEYS

All completed questionnaires were reviewed and edited for keypunching. In addition to correcting obvious errors and omissions, this process involved establishing codes corresponding to responses in categories labeled "other (specify)," coding the information initially provided in the form of an "organization chart" with counts of manpower assigned to each organizational unit, and transcribing answers that were textual in nature. The coding sheet used to count the number of officers assigned to specialized investigative functions, as opposed to generalized, is shown in Appendix F. The material entered on this sheet was captured from respondents' answers to Question 24 of the survey instrument shown in Appendix B.

ADDITIONAL SOURCES OF DATA

The Rand Corporation asked the FBI Director, Clarence Kelley, whether he would assist this study by providing a computer-readable tape of all information reported to the Uniform Crime Reporting Section by departments in our survey universe, and he agreed to do so.

This data tape contained information for 1972 concerning estimated

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of sheriffs and police chiefs together with recent newspaper articles. However, we had not considered the matter to be of sufficient importance to contact the remaining departments by telephone, a step we would recommend to others undertaking similar surveys in the future.

*Difficulties such as these are inherent in any large mailing, and we apologize to any department that finds itself listed as a nonrespondent in Appendix A but believes that it either did not receive the survey packet or actually did respond.

population in the department's jurisdiction, number of employees, and the usual FBI categories of reported crimes, arrests, and clearances.* This information was available to us for 296 of the 300 departments, whether or not they responded to the survey.†

In addition, for city police departments certain demographic data were obtained from standard statistical sources for the year 1970. These included minority population, median family income, measures of poverty levels, and police budget information. These data permitted comparison of respondents with nonrespondents to determine potential survey biases. Corresponding data for county police departments could not be collected because in many cases a county agency does not serve

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*The FBI collects data for the following categories of crimes, which are given uniform nationally recognized definitions:

(1) Homicide and nonnegligent manslaughter
(2) Forcible rape
(3) Robbery
(4) Aggravated or felonious assault
(5) Burglary
(6) Larceny of $50 or over
(7) Auto theft

(The above are known as *Index crimes*.)

(8) Larceny under $50
(9) Manslaughter by negligence

(These two, together with all Index crimes, constitute *Part I crimes*.)

(10) Several other categories known collectively as *Part II crimes*.

For Part I crimes, the FBI collects information on the number of crimes and attempted crimes *reported* to the police, the number *unfounded* (upon investigation it is found that no crime was attempted or committed), and the number *cleared* (a perpetrator was apprehended or was identified as unapprehendable, e.g., dead). The number of arrests in each category is also collected for both Part I and Part II crimes. In this report, we use the term "reported crimes" to refer to the number remaining after unfounded crimes are subtracted out.

†The Uniform Crime Reporting system is fairly complex, with some departments reporting directly to the FBI on a monthly basis, others on an annual basis, and still others reporting to regional systems for transmittal to the FBI. The data tape sent to Rand was intended to coalesce information from these various sources but was nonetheless incomplete in regard to clearance data.

the entire county, but rather covers whatever part is not otherwise served by municipal departments. Without a completed survey form, we were unable to determine what part of the county was involved.

RESPONSE RATE

The total of all departments from which complete responses were received, either by interview or by mail, was 153, or 51.0 percent of the total.* The response rate for counties (44.9 percent) did not differ significantly from the response rate for cities (52.8 percent).

While this response rate may be considered rather high, compared to mailed surveys in general, it is not so large that the possibility of significant bias in the findings can be excluded. However, because we collected a variety of data about the entire universe of interest, not just those that responded to the survey, it is possible to describe the types of departments that are overrepresented or underrepresented in the survey data. These facts can then be kept in mind when interpreting the findings.

One of the more important biases present in the data is that large departments were more likely to respond to the survey than small departments. This pattern, which was nearly identical for counties and for cities, can be observed by comparing response rates with a number of different variables, such as population of the jurisdiction, area of the jurisdiction, number of sworn officers, number of total employees, budget of the police department, and crime rates per population, all of which are interrelated.

We illustrate this pattern for two of the variables. Table 1a shows that among the 75 departments whose jurisdictions have the smallest population (i.e., the lowest quartile), the response rate was 42.2 percent, while for the largest 75 cities or counties, the response rate was 62.7 percent, which is significantly higher. In Table 1b, we see that departments having the highest crime rates per population were

*Some of the responses from pretest departments were not complete because of changes we made in the questionnaire. These departments are nonetheless listed as respondents in Appendix A, so that the total number of responding departments as shown in the appendix is greater than 153.

Table 1a

VARIATIONS IN RESPONSE RATE BY SIZE OF JURISDICTION

Population[a]	Response Rate (%)
Lowest quartile (25,000-94,000)	42.2
Second quartile (94,000-135,000)	37.6
Third quartile (135,000-250,000)	59.9
Highest quartile (over 250,000)	62.7

[a]Estimated 1972 resident population.

Table 1b

VARIATIONS IN RESPONSE RATE BY PART I CRIME RATE

Crimes per 100,000 Population[a]	Response Rate (%)
Lowest quartile (1,000-3,800)	42.8
Second quartile (3,800-5,400)	46.9
Third quartile (5,400-6,840)	47.6
Highest quartile (6,840-11,560)	65.0

[a]FBI data for 1972.

more likely to respond than the others, which tells us approximately the same thing as Table 1a, since small cities in general have lower crime rates.

A second bias is that departments whose reported clearance rates are very low were less likely than other departments to respond to the survey. Again, this pattern was consistent for cities and counties and for a variety of different clearance measures. We illustrate it in Table 2 by showing the variation in response rates with clearance rates for Part I crimes, and with clearances per police officer. This pattern appears to be independent of the one noted earlier, as the group of departments with low clearance rates included both large and small jurisdictions.

By far the strongest variations in response rate were related to the region of the country in which the department is located. For this purpose we defined regions according to standard Census Bureau categories, as shown in Table 3. The response rates were as follows:

South Central ..... 76.9 percent
West ..... 60.0 percent
North Central ..... 49.2 percent
South Atlantic ..... 45.7 percent
Northeast ..... 36.4 percent

Table 2

VARIATIONS IN RESPONSE RATE BY REPORTED PART I CLEARANCES

Clearance Rate[a]	Response Rate (%)	Clearances per Policeman[b]	Response Rate (%)
Lowest quartile (5-14%)	39.4	Lowest quartile (1.2-3.1)	34.9
Second quartile (14-18%)	54.4	Second quartile (3.1-5.6)	43.7
Third quartile (18-26%)	54.6	Third quartile (5.6-8.3)	61.1
Highest quartile (26-47%)	54.6	Highest quartile (8.3-24.0)	63.3

[a]Number of Part I crimes reported to the FBI as cleared in 1972 divided by the number of Part I crimes, expressed as a percent.

[b]Number of Part I clearances reported in 1972 divided by the number of sworn officers in the department.

Thus the East Coast departments were less likely to respond than any of the others, and South Central departments were most likely to respond. To exclude the possibility that response rates were influenced by a nonrandom choice of departments which were visited by Rand staff members, the rates were calculated for unvisited departments separately. This did not affect the relative rankings of geographical regions in the list above. In fact, the visited departments were concentrated on the East and West coasts, and no South Central departments whatever were included in the first wave of site visits which were for the purpose of obtaining the information related to this survey. We are unable to draw any direct inferences as to why the response rates were lower on the East Coast, since every such department that we contacted directly to arrange a site visit was fully cooperative with the research team and provided all information requested, even of a confidential nature.

The totality of information available to us regarding respondents and nonrespondents would have permitted establishing a sampling weight for each responding department in the analysis. However, as will be

Table 3

COMPOSITION OF REGIONS[a]

Northeast

Connecticut	New York
Maine	Pennsylvania
Massachusetts	Rhode Island
New Jersey	

South Atlantic

Delaware	Maryland
District of Columbia	North Carolina
Florida	South Carolina
Georgia	Virginia
	West Virginia

South Central

Alabama	Mississippi
Arkansas	Oklahoma
Kentucky	Tennessee
Louisiana	Texas

North Central

Illinois	Minnesota
Indiana	Missouri
Iowa	Nebraska
Kansas	Ohio
Michigan	Wisconsin

West

Arizona	New Mexico
California	Oregon
Colorado	Utah
Hawaii	Washington
Nevada	

[a]Only those states that include a department in the sample universe are listed.

seen, the characteristics that were related to response rate did not show important correlations with other items studied, except in the case of geographical region. Moreover, since geographical region is not in itself a causative factor in determining investigative effectiveness of a department, but is simply a proxy for other less easily measurable characteristics, we took the approach of tabulating other variables against region rather than applying a sampling weight. Because no clearly identifiable subset of the departments had a response rate under one-third, it may be assumed that no particular type of department is severely underrepresented in the data.

III. DESCRIPTIVE RESULTS

In this chapter we summarize the answers given to questions on the survey questionnaire.

OVERALL DEPARTMENTAL CHARACTERISTICS

Table 4 shows general characteristics of the surveyed departments and their jurisdictions; these relate to all operations of the departments (not just the investigative function). The median identifies the point at which half the departments were higher and half lower. Where county and city medians were similar, they have been consolidated into a single figure.

Aside from pointing out the wide range of types of departments included in the survey, the table also reveals that there is no "standard" or "average" amount of activity or performance by police departments in relation to arrests and clearances. There is a ratio of over 50 between the highest and lowest number of arrests per police officer per year. Moreover, some departments claim a clearance rate for Part I crimes that is over 50 percent.

We examined the reported clearance rates to see whether departments claiming a high rate happened to have an unusual mix of crime types,* but this was not the case. Ordinarily a department that reported a high clearance rate for one type of crime also had a clearance rate well above average for the other types.

Table 4 also helps illuminate the remarkable variation in departmental policies regarding when a crime is counted as cleared. In general, one would expect the average number of clearances per arrest in a department to be approximately 1.0. The reason for this is as follows. In a large number of cases, a single arrest would clear exactly one crime. However, in some cases more than one person is arrested in connection with a single crime, or a person is arrested but no crime is

*For example, most departments have a homicide clearance rate well over 50 percent.

Table 4

DEPARTMENTAL CHARACTERISTICS

Characteristic	Lowest	Median for Counties	Median for Cities	Highest
Population of jurisdiction (estimated 1972)	25,402	190,500	148,000	7,890,000
Area of jurisdiction (square miles)	3	769.5	52	20,000
Part I crimes per 100,000 population (1972)	1,069	3,945	5,839	15,736
Number of employees (sworn and civilian)	132	372	300	35,262
Number of officers (1973)	96	255		30,881
Percent of employees sworn	45	82		100
Total budget (FY 73)	$993,000	$5,288,000		$1,029,800,000
Salary budget per officer (FY 73)	$7,000	$15,000		$27,000
Part I arrests per offense (1972)	0.074	0.172	0.182	0.383
Part I arrests per police officer (1972)	0.3	4.1	6.1	16.1
Total arrests per police officer (1972)	1.5	19.7	29.1	80.6
Part I clearances per offense (1972)	0.048	0.162	0.188	0.541
Part I clearances per arrest (1972)	0.38	1.00	1.08	4.04

cleared. These instances would tend to cause the average clearance/arrest ratio to fall under 1.00. In the opposite direction are instances where one arrestee is connected with several crimes, which tend to push the average clearance/arrest ratio over 1.00. If instances of both types are about equally common, the clearance/arrest ratio would be around 1.00, which is the case for the "median" department. But as can be seen from Table 4, the department with the lowest clearance/arrest ratio (0.38) actually averages 8 arrests for every 3 crimes cleared, while the highest department claims 4 clearances per arrest, on the average.

Whether these extreme variations are to be attributed to differences in stringency of departmental regulations regarding what constitutes a clearance or to inadequacies in the crime reporting system (e.g., some cleared crimes never get recorded as cleared), they do add to the evidence indicating the futility of attempting to measure effectiveness using reported clearance rates.

The information given in Table 4 was determined from data provided by survey respondents and also from independent sources. The survey responses served mainly to correct errors or to fill in gaps from elsewhere. For example, some departments that do not send uniform crime reporting data to the FBI (or failed to do so in 1972) nonetheless responded to our survey. In a few cases the FBI data were erroneous, usually because the counts represented a period of time longer than the year 1972. However, in the vast majority of cases, the data for 1972 provided to us in 1974 were identical to the FBI data or differed only in that the number of crimes listed as cleared or unfounded had been updated slightly, reflecting more recent developments.

The remaining items discussed in this report refer to information available only from the survey, and the reader may wish to consult Appendix B for the exact wording of questions. Question 10 asked whether the department had separate geographical commands. Only 28 percent of cities responded Yes to this. Even the largest 20 percent of city departments (in terms of size of the force) were predominantly organized into single geographical commands.

By contrast, 61 percent of county departments had separate commands. This reflects both the large land area of some counties and the fact that separate political jurisdictions within the county may be served by the one department. Most departments that cover more than 400 square miles had separate geographical commands.

The majority of departments with separate commands had 4 or fewer, with the highest being 73 in New York and the next closest 22. (See Table 5.)

Among departments that do have geographical commands, the majority (63 percent) have all their investigators located at central headquarters nonetheless. Another 15 percent have some of their investigators located

Table 5

NUMBER OF GEOGRAPHICAL SUBDIVISIONS (PRECINCTS, DIVISIONS, DISTRICTS, ETC.)

Number of Subdivisions	Number of Departments	Percentage of Departments
None	99	64.7
2-4	29	18.9
5-10	20	13.1
11-20	3	2.0
Over 20	2	1.3

in the precincts or districts, while most are at headquarters. Only 22 percent operate primarily from local district stations. Thus, taking into account that most departments have no separate commands at all, the form of investigative organization in which investigators are assigned to geographical areas may be considered extremely unusual on a nationwide basis. This despite the fact that a number of the best known (i.e., biggest) departments are so organized.

INVESTIGATORS' RANK, QUALIFICATIONS, AND TRAINING

All cities with population over 250,000 have a special title for officers assigned primarily to investigation, whether or not this title corresponds to a formal rank, and 90 percent of smaller cities do also. Many county police departments have no special title for investigators. Even 10 percent of large county departments have no such title.

The majority of departments (60 percent) detail officers to investigative positions, where they do not have civil service rank or tenure. The departments in which investigators have civil service rank are primarily in medium-sized cities and in the center of the country (as opposed to the two coasts).*

In the vast majority of departments investigators work singly, as opposed to in pairs. The pattern of paired investigators appears

*We use the term "coast" to refer to the regions defined in Table 3 as Northeast, South Atlantic, and West. They actually extend inland considerably from the coasts.

to be primarily restricted to the Northeast, although 30 percent of departments in the center of the country also have some or all of their investigators working in pairs.

Nearly all departments (93 percent) reported that their training program for new recruits included material related to crime investigation, although in a large majority of cases the investigative component totaled two weeks or less of training. Some 10 percent of departments reported that more than 240 hours of initial recruit training were related to investigation, although some of these may have misinterpreted the question and reported the total amount of training for recruits.

By contrast, more than half of all departments reported that they had no training program whatsoever for newly appointed *investigators*. The ones that did have such a training program usually reported a 40-hour or 80-hour course. The greatest amount of training provided by any department to new investigators was a 12-week training course.

Many departments appeared to follow a policy of providing limited or no training at the start, followed by on-the-job training, and then offering periodic courses related to special topics in investigation. Over 70 percent of departments indicated that they provided periodic refresher training or made arrangements for their investigators to attend courses given by other agencies, especially the FBI. In five departments, investigators were required to attend weekly training sessions, while another 11 departments held such sessions at least every six months. The most common pattern, however, was annual refresher training or "training as needed," for example when an investigator was promoted or changed specialties. On the average, investigators were found to receive 31.2 hours of training per year.

In regard to all aspects of training policies that we have described, county police departments were remarkably similar to city departments.

ORGANIZATION OF THE INVESTIGATIVE FUNCTION

For clarity of presentation in this section, we shall use certain terminology in describing investigators and their units.

The term *detective* will be used to refer to a sworn officer who

has a special title that is presumably related to investigation. Although many departments do call these officers "detectives," other titles such as "inspector" or "investigator" apply in some locales. The term *detective* does not include supervising officers in investigative units who perform primarily administrative functions. However, it may include some officers who do not actually perform investigations, although they have the appropriate title. For example, a detective may be assigned to a planning unit or to protect the chief of the department during public appearances.

We will use the term *investigator* to refer to any sworn officer who is assigned to a unit having investigative duties. This term includes those detectives who are assigned to investigation, patrolmen who work in plainclothes for investigative units, and supervising officers.

A *specialized* unit is one that has responsibility for investigating certain types of crimes, but not all crimes. For example, a homicide squad is a specialized unit, although, as we shall see below, it is not the most common specialized unit for a department to have.

Resources Devoted to the Investigative Function

The survey showed that on the average, 14.5 percent of the sworn personnel in a police department are detectives. This figure was approximately the same for cities and counties and did not in general show very large variations among departments. For example, in well over half of the departments the number of detectives was between 11 and 18 percent of the force.

There were, however, a few departments varying strongly from the norm. In one county department, which does not actually provide a full range of patrol services, 46 percent of the force were detectives. The highest figure for a city was 31 percent of the force being detectives. At the low end, three departments reported that 6 percent of their sworn officers were detectives. These departments indicated a major role for patrolmen in the investigative process, and therefore the 6 percent figure understates the amount of resources devoted to investigation.

In all of the county departments that responded to the survey, every one of their detectives was assigned to an investigative unit. (This was determined by summing the number of detectives listed for each unit.) While the pattern in most cities was similar, with at least 95 percent of detectives assigned to investigation, there were a few notable exceptions. Some 7 percent of cities had fewer than 80 percent of detectives assigned to investigation, and one city, the lowest, reported that only 55 percent of its detectives were assigned to investigation.

By considering investigators rather than detectives, the picture of the amount of resources devoted to the investigative function is about the same, but increased by three percentage points. Thus, on the average, 17.3 percent of sworn officers work in investigative units, with half of all departments falling in the range from 14 to 20 percent. Nearly all the nondetectives assigned to investigative units were not involved in investigation of reported crimes. Namely, they were primarily in juvenile squads, vice and narcotics units, identification sections, etc.

Less than half of all departments indicated that they had any civilians assigned to the investigative function. Excluding evidence technicians, these tended to be few in number, almost always under ten. In the cities visited by Rand staff, the few civilians who were assigned to investigative duties were either criminalists, attorneys, or physicians.

Assignment of Investigators to Individual Units

We found that on the average, 78 percent of investigators were assigned primarily to investigation of reported crimes. The remaining 22 percent were in vice and narcotics units, internal inspection, missing persons, intelligence, organized crime, surveillance, and the like. Here there was a fairly substantial variation, with one department assigning only 35 percent of its investigators to handling reported crime.

Only 7 percent of the cities, and 17 percent of the counties, operate on a total generalist concept, with no specialized units whatsoever. On the average, 55 percent of investigators in cities work in

specialized units, and the corresponding figure in counties is 43 percent. The totally specialized form of organization is even rarer than the totally generalized form, with 7 percent of cities and one reporting county having all its investigators in specialized units.

In one-quarter of the departments, investigators were merely separated into a "crimes against persons" unit and a "crimes against property" unit. While we have counted these as "specialized units," they represent a very modest form of specialization and could perhaps be included in a semigeneralized category. However, in many instances investigators within such units specialized in a particular subclass of crimes, such as robbery and assault, which is not the case in the few departments that reported their investigators had no specialties at all.

The prevalence of particular specialties was very similar for cities and counties and is shown in Table 6. There are few surprises here, especially in regard to the fact that most departments have units specializing in juvenile crime and in vice and/or narcotics. Indeed, the surprise may be that a considerable number of departments operate without specialists in these fields. In regard to organized crime intelligence units, either a department had a special unit that engaged in this activity, or in most cases there was no indication whatsoever from the department's table of organization that any investigators were involved with organized crime.

Table 6

TYPICAL SPECIALIZED UNITS

Type of Unit	Departments Reporting They Had Such a Unit (%)	
	Cities	Counties
Juvenile	73	61
Vice/narco (either separate or together)	50	50
Organized crime	41	43
Auto theft	40	39
Burglary	33	42
Homicide	33	35
Checks, forgery, bunco	30	33
Internal inspection	29	29

Among crimes that are ordinarily reported by the public, auto theft and burglary were most likely to have specialists assigned. In addition to the general burglary squads shown in Table 6, 7 percent of the departments had separate residential and commercial burglary units. The next two categories in the table--homicide, and checks, forgery, and bunco--are evidently examples of crimes requiring lengthy investigations and specialized knowledge. However, over two-thirds of all departments did not have special units assigned to these crimes.

Specialties that do not appear in Table 6 were present in fewer than one-fourth of the departments. These included fugitives and missing persons, robbery, and sex crimes. A complete list of the specialized units that were found in more than one or two departments is given on the coding sheet in Appendix F. A small number of departments engaged in "super specialization," so that one investigator might be assigned to a class of crimes such as "safecracking in jewelry stores."

The average number of specialized units in cities was 4.8;* in counties 5.0.

Evaluation of Performance

Responding departments were asked to specify the importance to them of various ways that the performance of investigative units could be monitored. The responses in order of ranking were as follows:

Success in a major investigation	mostly "very important"
Supervisory review	72% "very important" 23% "important"
Clearance statistics	"very important"
Arrest statistics	mostly "important"
Caseload	"important"
Property recovered	"important"

Eighty-five percent of departments stated that they use statistics regarding prosecution of cases for evaluation of units, but our

*In New York City, over 1000 investigators assigned to special units were aggregated together into a category labeled "other," so the number of specialized units in New York is not included in this average.

experience in visited cities is that these are often found difficult to interpret for evaluation purposes. Only 50 percent of departments said they used court conviction statistics in the same way, presumably reflecting the fact that conviction data are not available in a timely fashion or are difficult to obtain in a form that reflects back on investigative units' performance.

A large number of departments (60 percent) stated that their evaluations are in some degree based on an audit, which was defined as "detailed follow-up investigation of randomly selected cases." Our intent was to refer to a practice whereby a sample of cases that have already been investigated and are currently inactive is reinvestigated by someone else. While we have observed such a practice to exist in some large departments, our experience leads us to doubt that 60 percent of all departments undertake audits, and therefore there is some possibility that this question was misinterpreted.

Among measures of quality that were listed in the category "other," some of the most interesting were reported by departments that have formal procedures for observing and rating the practices and behavior of investigators during interviews, interrogations, and lineup, or that encourage supervisors to take note of the performance of the investigator as a witness in court. In addition, a few departments stated that the number of "cases unfounded" would count favorably in evaluating the quality of a unit.

Reorganization

The rapid state of flux in investigative organization is evidenced by the fact that nearly half of the responding departments indicated that there had been a significant reorganization of their investigative units during the two years prior to the survey. However, the lack of coherent impressions as to how investigative effectiveness can be improved is revealed by the fact that for each department making a specific change, there were usually one or two departments making changes in the opposite direction. Thus, some departments had decentralized their investigative units while others had centralized. Some had introduced specialization while others had generalized. The primary

types of changes that were not counterbalanced by opposing changes elsewhere were (1) establishment of proactive and surveillance units, and (2) assignment of greater investigative duties to patrolmen.

Role of Patrolmen

In traditional police practice, which is currently undergoing change in some departments, detectives handled all aspects of investigations, and the patrolmen's role in relation to reported crimes was limited to preparing crime reports, securing crime scenes, and taking the necessary steps to arrest perpetrators who are at or near the scene of a crime. Our survey showed that 58 percent of responding departments still operate in this way. In the remaining 42 percent, the patrolmen have been assigned some or all of the duties traditionally reserved for investigators.

Five departments have given patrolmen total responsibility for all investigations of all reported crimes. Another 17 departments (11 percent) require the patrolmen to perform complete crime scene searches and preliminary investigations. While the term "preliminary investigation" is defined variously by different departments, in general it means that the patrolman collects more information than would be needed simply to complete a crime report. He may search for and interview witnesses, collect physical evidence, etc.

Another group of departments selects certain crimes to be investigated by patrolmen. The most common pattern observed was for patrolmen to conduct searches and preliminary investigations for misdemeanors and/or burglaries. Three responding departments assign their patrolmen full investigative responsibilities for these two crime types. One department assigns, in addition, all robberies to the responding patrolmen for investigation.

Several departments (12) indicated that patrolmen were to conduct particularly complete preliminary investigations in the case of homicides, including a neighborhood canvass. However, this would presumably be under the direction of investigators.

Other crime types assigned to patrolmen for investigation in only one or two departments were as follows: all crimes on the night tour,

larceny, auto theft, assault, sex crimes, accidents, hit-run, and vandalism.

INTERACTION WITH OTHER CRIMINAL JUSTICE AGENCIES

Practices regarding who in the department seeks a criminal complaint from the prosecutor or court varied widely. Some 17 percent of departments have a specially designated liaison officer who handles all or some of this function. In only 11 percent of departments would the arresting officer invariably obtain the complaint. In 41 percent of departments the investigating officer would always seek the complaint. In the remaining departments the practice varied, usually by crime type or time of day. For example, in some jurisdictions it was possible to obtain a court complaint at night or on weekends when investigators were not on duty, in which case the arresting officer would handle this.

The role of the prosecutor's office in criminal investigations varied greatly among jurisdictions. In some, the prosecutor has his own investigative staff and actually conducts some investigations independent of the police. This was the case in three-quarters of the cities and counties that responded. The prosecutor in such jurisdictions may also monitor closely the progress of the police department's investigations in serious cases. In other jurisdictions it would be most unusual for the prosecutor to enter into the investigative process in any way, either before or after an arrest.

The survey showed that the prosecutor was *always* involved in investigating prior to an arrest or advising whether to arrest as follows:

Homicide	25% of cities and counties
Official misconduct	20%
White collar	7%
Drugs	4%
All others	uncommon

The prosecutor would *never* be involved prior to an arrest as follows:

Homicide	10% of cities and counties
Robbery	28%
Theft/burglary	26%

Drugs 17%
Official misconduct 21%
White collar 19%

The practice of having police department employees staff the prosecutor's investigative units is rather uncommon. Only six departments reported they provided all of the prosecutor's investigative personnel; this is 5 percent of prosecutors' offices that have investigators. Another 18 percent of such prosecutors' offices had some police officers assigned to the staff.

We inquired as to what fraction of felony arrests are screened out by the prosecutor without drawing of an affidavit or formal complaint. Those departments that had no data on this and provided an estimate* responded predominantly "less than 5 percent." Departments having data responded mostly "5-20 percent," although a few of these also responded "under 5 percent." In addition, there was a substantial group (15 percent) responding "20-50 percent," and four departments reported that over 50 percent of their felony arrests are screened out by the prosecutor.

INVESTIGATIVE POLICIES, OPERATIONS, AND PROCEDURES

The vast majority of departments (87 percent) stated they had evidence technicians who could be dispatched to the scene of crimes. Of these, exactly half had only sworn officers as evidence technicians and 9 percent had only civilians. The remainder had a mixture of civilians and officers, with an overall average of 19.6 percent of evidence technicians being civilians.

On the average, the number of evidence technicians in a department equaled 2.4 percent of the total force, and variations among departments were not great. Over 90 percent of departments had under 5 percent evidence technicians.

Reported practices in regard to the frequency of evidence checks are summarized in Table 7, which gives the percentage of departments

*Nearly three-quarters of departments did not record (or tabulate) such data.

Table 7

PERCENTAGE OF DEPARTMENTS REPORTING EVIDENCE CHECK "ALWAYS" MADE

Crime Type	Type of Evidence			
	Finger-prints	Tool Marks	Chemical	Shoeprint/ Tire
Homicide	81	54	61	52
Residential burglary	43	47	9	26
Commercial burglary	68	66	14	40
Robbery	55	41	18	43

reporting that an evidence check is "always" made. In general, very few departments stated that an evidence check was "never" made, except in the case of ordinarily inapplicable categories, such as checking for tool marks at the scene of robberies. Fingerprint checks, in particular, were said to be made "usually" or "always" by practically all departments in all crime categories. For example, in the case of residential burglaries, only 4.2 percent of departments indicated that fingerprint checks were never or rarely made. In light of studies of individual departments' practices in regard to collection of fingerprint evidence,[2] many of these responses appear to be wishful thinking.

Practices for assigning cases to investigators covered a wide range, as shown in Table 8. This question was intended to determine how the case was assigned to a particular individual after it was assigned to a unit. Therefore, in principle, the fact that the unit might consist of specialists in a particular crime type should not play a role here. Nonetheless, the predominant method of case assignment was by specialty of the investigator, indicating perhaps that specialties are more finely divided than would be indicated by the titles of units themselves.

RECORDS AND FILES

Over half of the responding departments indicated that their investigators fill out a formal activity log, which was defined as a breakdown of the hours spent on various activities. The activities

Table 8

METHOD FOR ASSIGNING CASES TO INVESTIGATORS

Method	Percent of Departments
According to specialty of investigator	45
By rotation as assigned by supervisor	17
By strict rotation	15
According to specialty and assignment by supervisor	7
By specialty and geography	7
If incident occurs during assigned time period	5
Geography only	2
All others	2

could be either general categories, such as investigation, crime lab, court time, and special detail, or they could indicate the particular case on which the investigator was working (or both). Nearly all the departments that reported the use of activity logs said that the information recorded in them is periodically summarized for management purposes.

We find these responses difficult to interpret, since visits by Rand staff members to selected departments revealed only a handful of instances where departments could provide even a modestly comprehensive summary of how investigators spend their time. Some responding departments provided copies of blank activity logs, which revealed that they were primarily for the personal use of investigators who presumably referred to them when preparing periodic reports on their own activities. Such logs appear to serve the purpose of permitting supervisors to check special circumstances that may have occurred, rather than providing routine management information. A computerized file that actually contains complete and detailed investigators' activity

logs and is maintained by one department has been obtained by Rand, and a companion report[1] describes our analysis of this file.

The use of computer information systems in support of the investigative function is shown in Tables 9 and 10. Several examples of the most interesting types of information systems were subsequently studied in detail and are also described in Ref. 1. Table 9 lists files about which we specifically asked on the survey instrument. Table 10 lists files mentioned by departments in the category "other." Computerized fingerprint and mug shot files are systems permitting rapid retrieval of individual hard copy items or a selected group of items having certain characteristics. Not shown in the tables are various motor vehicle and traffic files mentioned by a large number of departments.

Table 9

AVAILABILITY OF COMPUTER-READABLE FILES

Type of File	Percentage of Departments with Access to Computerized File
Crime reports	56
Arrest reports	56
Monthly FBI statistics	56
Hot car	40
Court dispositions	26
Known offender	15
Modus operandi	13
Sex offender	10
Organized crime intelligence	10
Fingerprints	4
Mug shots	4

Just half of the departments indicated that they kept some sort of file (manual or computer-readable) that collects together in one place all the following information about a reported crime:

- crime report
- whether an arrest made
- court disposition
- whether cleared
- whether prosecuted

Table 10

ADDITIONAL COMPUTER-READABLE FILES AVAILABLE
IN ONE OR MORE DEPARTMENTS

Investigators' activity records
Field interview cards, suspicious persons, suspicious vehicles
Arrest warrants
Wanted persons
Escapees, fugitives, missing persons
Registered informants
Index to polygraph records

Offender files
- Nickname, alias, monicker
- Rap sheets, criminal history
- Known drug offenders
- Known alcohol beverage law violators
- Known robbery offenders
- Known burglars
- Known safe men
- Known juvenile gangs, motorcycle gangs
- Known gamblers
- Suspect-offense cross index
- Peculiarity traits

Crime-specific files
- Selected case histories
- Handwriting samples
- Check cases
- Check classifications
- Fraud cases
- Gambling cases
- Subversive activities

Location-specific files
- Bars and restaurants
- Burglary incidence
- Known narcotics sales
- Known gambling

Files related to stolen property
- Identification numbers inscribed on property
- Lost or stolen property
- Pawn tickets
- Scrap metal sales
- Bicycle registrations
- Stolen guns

Weapons
- Permits, registrations, and sales of guns
- Ballistics file

Information collected about the outcomes of arrest and search warrants tends to be meager in most departments, primarily because such records are considered the property of the prosecutor or court. In particular, except in departments where arrest warrants are always obtained (as the procedural equivalent of a court complaint), few departments could indicate how many arrests had been made pursuant to an arrest warrant obtained in the course of an investigation, nor could they easily determine what fraction of search warrants had led to successful recovery of property.

INNOVATIVE PROGRAMS

Responding departments were asked whether they had any innovative investigative programs or policies showing enough promise that other departments should know of them. Forty percent responded that they did, and an even larger number indicated that other departments' responses to this question would be of interest to them. Therefore, we summarize them below. Further details about the precise mode of operation of some of these innovations in selected cities is provided in a companion report.(1)

Investigative Case Management

Several departments referred to case screening procedures. In general, these are systems whereby the quantity and quality of evidence available for a particular case is weighed or categorized, and a decision is made whether to investigate the case or not. The purpose of these procedures is to focus the investigators' attention on important or potentially productive cases and to eliminate unnecessary workload. The effects of implementing such procedures is also analyzed in Ref. 1.

In this connection, one department specifically noted the importance of sending a form letter to those crime victims whose cases are "screened out." The letter was said to be well received, eliminated a "great deal of unnecessary legwork," and provided the victim with information about what to do if there were any new developments in the case that he knew of.

Another category of innovation was computerized case management systems that keep track of the current status of each case, times at which progress reports or court appearances are scheduled, and the investigator(s) assigned. These permit rapid "flagging" of cases that are failing to progress as expected for any reason and institution of timely corrective action.

Finally, one department indicated enthusiasm for a system in which investigators record all their reports on hand-held tape recorders, often while traveling. Clerk typists type the reports verbatim and return them to the officer for correction and signature. This was said to increase the time available for investigation of cases and to lead to more complete, timely, and accurate reports. Another department arranged for its investigators to call in reports by telephone, at which time they were recorded at a central location and subsequently transcribed. Even officers who are at their desks in headquarters are encouraged to use the system by dialing an extension number.

Technical Resources

Several departments mentioned the establishment of a mobile evidence technician unit, its expansion, or purchase of improved equipment as having a favorable impact on investigations. New designs of mobile vans were frequently mentioned, along with sophisticated equipment such as gas chromatography. A few departments were training their mobile evidence technicians in the use of polygraphs.

Every department that had obtained a computerized fingerprint retrieval system made specific reference to it as an innovation they would recommend to others. Many provided, in addition, detailed descriptions of the process by which prints are microfilmed or stored on computer cards, coded, identified, and rapidly accessed. One department also stores palm prints in this fashion.

In only one case, New York City, did the computer system actually examine the physical image of the fingerprint and process it in some way. In all other departments, prints could be accessed only by knowing the name or other identifier of the individual whose prints were stored, or by sorting on previously coded print characteristics. In

general, the effort required to prepare the files for these systems was substantial, and a staged approach was used--such as beginning with prints for robbers and then moving on to forgers, sex offenders, and burglars.

One department described a "Talking Rogue's Gallery," in which a slide projector is combined with a tape player. Color photographs of suspects can be shown at the same time as a 35-second recording of the suspect's voice is played. This system was claimed to improve the accuracy of identifications by victims and witnesses.

Computerized modus operandi (MO) files were mentioned favorably by departments that have them. These systems store characteristics of crimes and perpetrators and permit rapid searches of large files to determine a series of crimes that may have been committed by a single person. While the intent of such systems is to assist in identification of a suspect in cases where other leads fail, the predominant favorable comment had to do with clearing a number of crimes committed by a suspect already in custody. In some departments, the MO file is checked by clerks even before a crime report reaches the investigator, so that he has whatever added information can be obtained from the file in hand at the start of his investigation. This procedure is often termed "case enrichment."

Crime Prevention

A large number of community-oriented projects were mentioned in the category of crime prevention. These included programs to encourage citizens to mark their property, "secret witness" programs in which newspapers and radio stations provide means for anonymous tips regarding the perpetrators of crimes, reporting of all auto thefts on a local radio station, and advising members of the public how to improve the security of their homes and businesses.

In one city persons who, by the nature of their jobs (e.g., bank employees), are likely eventually to be the victims of a crime or a witness were being trained by the police on how to behave in such situations. Another city purchased portable burglar alarms and installed them in crime-prone establishments, moving them from time to

time. The details of these programs varied from city to city, but the general concept of community-oriented crime prevention was being tried in most reporting jurisdictions.

The second major group of activities labeled "crime prevention" involves proactive activities by police officers, usually in plain-clothes. Dressed in "modern style," driving types of cars ordinarily not purchased by police departments, and mixing with the criminal element, these officers concentrate on immediate detection of crime and arrest of perpetrators. Since the Rand study focuses on investigation of crimes after they are reported, we have not attempted to summarize the vast variety of operations of this type. However, the frequency with which such efforts were mentioned by survey respondents indicates that they consider them to be important contributions to investigative effectiveness. A few examples from selected cities are outlined in the companion report mentioned earlier.(1)

IV. RELATIONSHIPS AMONG DEPARTMENT CHARACTERISTICS

In this chapter we compare the arrest and clearance rates of the departments that responded to our survey with other characteristics of the departments. The purpose of this analysis was to identify patterns of relationships deserving of detailed exploration in subsequent stages of Rand's study of the criminal investigation process. However, this purpose was not fulfilled, as we found no strong and consistent patterns that have operational significance for the organization of the investigative function.

This finding does not necessarily mean that there is no difference in effectiveness among various investigative practices, but rather that clearance and arrest rate statistics for departments as a whole may be inadequate to reveal whatever differences do exist. Many of the inadequacies of such statistics as performance measures are well known and are particularly acute if one attempts to consider the statistics as measures of *investigative* effectiveness. Among the most important inadequacies are the following:

- Patrol officers, as well as investigators, contribute to clearances and arrests.
- The number of arrests and clearances reported by a department is subject to administrative manipulation.
- To the extent that some arrests are invalid, an increase in arrest rate does not necessarily indicate better performance.
- The number of crimes reported in each crime category is only a fraction of the true number of crimes committed and is also subject to administrative manipulation.
- Clearances and arrests counted in a given calendar year are not necessarily related to crimes reported in the same year. (This is particularly apparent for crimes that are few in number. For example, a department's statistics may show that 7 homicides were reported in 1972 and that 9 homicides were cleared in 1972.)

One warning in advance about interpretation of relationships showing statistical significance: When a large number of variables are compared with each other and a standard of significance at the 0.05 level is used, as we have done throughout this study, then somewhere around 5 percent of all relations can be expected to be statistically significant even if the variables are unrelated.* While we will point out the ones that were statistically significant, it can happen that they appeared through statistical accident. Therefore, it is not appropriate to consider each statistically significant relationship as if it were meaningful, but rather to see whether coherent *patterns* of relationships emerge. Examples of coherent patterns are relationships that emerge as significant for both clearance rates and arrest rates, or that appear in a similar form for several different types of crimes or types of departments.

METHODOLOGY

In accordance with definitions given earlier, the number of crimes reported by a department as cleared in each FBI crime category for the year 1972 was divided by the number of crimes reported† in the category for 1972 to calculate a *clearance rate*. Similarly, the number of arrests in each category was divided by the number of reported crimes to give an *arrest rate*. The categories were also aggregated into crimes against persons (homicide, rape, robbery, and felonious assault), crimes against property (burglary, larceny, and auto theft), and total Part I crimes, and clearance and arrest rates were calculated for the aggregates also. Finally, the number of clearances in each category was divided by the number of arrests to give a *clearance/arrest rate*. The ranges of these variables are of some interest in themselves and are shown in Table 11. The data in this table refer to the entire survey universe, not just the departments that responded to the survey. In interpreting the table, it is important to realize that the department which happened to be

*Because the comparisons are not all independent, the expected figure would not be exactly 5 percent.

†Unfounded crimes were excluded in the count of reported crimes.

Table 11

CRIME, CLEARANCE, AND ARREST STATISTICS FOR 300 CITY AND COUNTY DEPARTMENTS[a]

Statistic	Lowest	Median	Mean	Highest
Part I Total				
Offenses per 100,000 population	1,070	5,448	5,590	13,946
Arrests per offense	0.07	0.180	0.191	0.44
Clearances per offense	0.05	0.185	0.204	0.54
Clearances per arrest	0.38	1.065	1.133	4.04
Arrests per policeman	0.30	5.652	5.757	16.15
Clearances per policeman	1.28	5.713	6.292	23.92
Part II Total				
Arrests per policeman	1.22	21.185	23.122	75.39
Murder				
Offenses per 100,000 population	0.48	8.867	11.384	55.09
Arrests per offense	0.07	1.001	1.166	7.00
Clearances per offense	0.33	0.895	0.876	1.50
Clearances per arrest	0.16	0.874	0.897	2.67
Arrests per policeman	0.002	0.047	0.063	0.47
Clearances per policeman	0.003	0.042	0.050	0.19
Rape				
Offenses per 100,000 population	1.6	26.6	30.0	123.0
Arrests per offense	0.06	0.462	0.512	2.00
Clearances per offense	0.13	0.559	0.580	1.18
Clearances per arrest	0.36	1.139	1.436	8.50
Arrests per policeman	0.004	0.062	0.076	0.30
Clearances per policeman	0.003	0.074	0.091	0.28
Robbery				
Offenses per 100,000 population	3.9	165.3	235.1	1240.2
Arrests per offense	0.11	0.343	0.390	2.00
Clearances per offense	0.07	0.307	0.335	0.87
Clearances per arrest	0.24	0.846	0.959	4.74
Arrests per policeman	0.004	0.319	0.383	2.64
Clearances per policeman	0.02	0.254	0.319	1.71

SOURCE: FBI data for 1972.

[a]All departments with 150 or more employees or a jurisdiction with population over 100,000.

Table 11--continued

Statistic	Lowest	Median	Mean	Highest
Felonious Assault				
Offenses per 100,000 population	6.2	189.6	245.3	1300.3
Arrests per offense	0.06	0.474	0.527	1.80
Clearances per offense	0.13	0.644	0.639	1.04
Clearances per arrest	0.45	1.224	1.680	9.76
Arrests per policeman	0.03	0.442	0.600	6.69
Clearances per policeman	0.03	0.598	0.777	3.24
Burglary				
Offenses per 100,000 population	237.4	1493.2	1634.2	5519.0
Arrests per offense	0.04	0.142	0.154	0.44
Clearances per offense	0.03	0.161	0.192	0.59
Clearances per arrest	0.30	1.106	1.360	5.08
Arrests per policeman	0.06	1.147	1.302	5.51
Clearances per policeman	0.22	1.323	1.645	8.28
Larceny				
Offenses per 100,000 population	306.7	2680.1	2767.5	7680.8
Arrests per offense	0.04	0.178	0.184	0.50
Clearances per offense	0.04	0.162	0.176	0.46
Clearances per arrest	0.23	0.966	1.091	4.23
Arrests per policeman	0.16	2.558	2.916	13.22
Clearances per policeman	0.22	2.516	2.885	11.73
Auto Theft				
Offenses per 100,000 population	2.1	483.7	668.0	3763.9
Arrests per offense	0.005	0.160	0.378	32.25
Clearances per offense	0.004	0.164	0.190	0.798
Clearances per arrest	0.03	0.929	1.130	11.32
Arrests per policeman	0.005	0.404	0.492	2.82
Clearances per policeman	0.007	0.449	0.515	2.26

"lowest" in one category is unlikely to be "lowest" in another one, and therefore it is not correct to compare statistics down each column as if they referred to a single department.

The calculated clearance and arrest rates were compared with nearly all other departmental characteristics for those departments that responded to the survey. The comparisons were made by means of correlations and multiple regressions in cases where the departmental characteristics could be described numerically. These statistical procedures are designed to reveal linear relationships among variables, but they can also detect monotonic relationships that are not linear. When significant relationships were observed, correlations for other characteristics were controlled for variations in the characteristics known to be significant.

To observe nonmonotonic relationships, two techniques were used. First, graphs of relationships were produced. Second, clearance and arrest variables were grouped according to the value of the variable, and the grouped variables were cross-tabulated against other variables describing department characteristics. For descriptors of department characteristics that were nonnumerical, cross-tabulation alone was used to determine whether significant relationships were present. A standard of significance at the 0.05 level was used in all cases. The analysis was performed using a collection of computer programs known as the Statistical Package for the Social Sciences (SPSS).

GENERAL CHARACTERISTICS OF DEPARTMENTS

The data showed that three department characteristics having no direct relationship to the organization of its investigative function are strongly correlated with arrest and clearance statistics: the *size* of the department, the *region* of the country in which the department is located, and its crime *workload* (number of crimes per police officer). Each of these characteristics was found to have an influence that is independent of the effect of the other two.

The size of a department can be measured by many different variables, among which are the number of employees, the number of sworn officers, the number of investigators, the annual budget, and the

population of the jurisdiction served by the department. While these variables are by no means synonymous (because, for example, some departments have substantially more police officers per 1000 population than other departments), a high value for any one of them was found to be related to a large number of clearances per arrest. Thus, in general, large departments tend to claim more clearances for each arrest than small departments. This relationship was found for nearly every category of crimes considered.*

There are several possible explanations for this observation. First, it may be that small departments count crimes as cleared under more restrictive circumstances than those permitted in larger departments. Second, it is possible that small departments make more unfruitful arrests (i.e., arrests that prove to have been unrelated to any crime) than large departments do, or that they are more conscientious about recording such arrests when they do occur. Finally, the differences could be unrelated to actual practices but simply reflect differences in record-keeping. (For example, to record a crime as cleared may require retrieving the original crime report and updating it in some way. This may be easier to accomplish in large departments with computer-readable crime reports than in small departments with manual files. Keeping an accurate count of the number of arrests is easier, because an arrest form is filled out for each person arrested.) The data available from the survey are inadequate to distinguish among these possible explanations.

Despite the fact that clearance/arrest ratios were generally higher in large departments than in small ones, there were no consistent variations in arrest rates or clearance rates (i.e., the number of arrests or clearances per crime) among departments according to their size.

The variations in arrest and clearance statistics according to the region of the country in which the department is located were even stronger than the variations according to the size of the department. In fact, they were the strongest relationships found in this study.

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*In this instance, as in several others that follow, statistics for the crime of homicide did not follow the general pattern. This is primarily because clearance rates for homicide are high in most departments.

Departments located in the South Central states* reported substantially higher numbers of clearances per arrest (averaging over 1.5) than departments in other areas. Departments in the Northeast and the West were lowest in this regard (under 1.0). As a consequence, the rankings of departments by region according to arrest rates were as follows:

Northeast (highest)
West
South Atlantic
North Central
South Central (lowest)

But the rankings by clearance rates were almost exactly reversed:

South Central (highest)
North Central
South Atlantic
Northeast
West (lowest)

This observation clearly illustrates the futility of attempting to use either arrest rates or clearance rates as measures of performance for comparing police departments. Evidently it is impossible that departments located in the South Central portion of the United States are at the same time the best in the country and the worst in the country, but interpreting arrest and clearance rates as performance measures appears to lead to this conclusion.

To compare arrest and clearance statistics with crime workload, several measures of workload were used: the total number of Part I crimes per police officer; the total number of crimes against persons per police officer; and, for clearance and arrest statistics for a particular crime type, the number of crimes of that type per police officer.

Regardless of the particular measure used, the same patterns were observed. First, for every crime type the arrest rate was found to be significantly lower in departments with high crime workload than in

*See Table 3 for composition of regions.

cities with low workload. When this relationship was inspected in greater detail, it was found that the number of arrests per police officer increases nearly (but not quite) in direct proportion to workload until a certain threshold of workload is reached. Beyond this threshold, increasing workload is associated with very small increases in the number of arrests per police officer. The thresholds are at approximately 35 Part I crimes per police officer per year and 3.5 crimes against persons per police officer per year. These thresholds are fairly high, as only about 20 percent of departments have greater workload levels.

These findings are consistent with the assumption that a city can increase its number of arrests or decrease its crime rate (or both) by increasing the size of its police force, but the effect of added resources would be greatest for cities above the threshold.

In regard to clearance rates, the data showed that departments with high crime workload tend to claim more clearances per arrest than cities with low crime workload. As a result, clearance rates are less sensitive to workload than arrest rates. Although clearance rates for every crime type were found to decrease with increasing workload, the decreases were not significant for some types of crimes. These relationships are summarized in Table 12.

Because the general department characteristics of size, location, and crime workload were found to be correlated with arrest and clearance rates, these three variables were controlled in our analysis of other department characteristics. This means that the effect of size, location, and crime workload on each department's arrest and clearance statistics was estimated by means of a linear fit to the data,* and then the difference between the department's actual statistic and this estimate was compared with other characteristics of the department.

One such characteristic, which again is unrelated to the investigative function, is the total salary budget of the department divided by the number of police officers. This variable captures both the pay

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*For this purpose, "region" was arbitrarily converted into an integer variable, with the order determined by the preceding analysis: 1 = West, 2 = Northeast, 3 = South Atlantic, 4 = North Central, 5 = South Central.

Table 12

CORRELATIONS: WORKLOAD VS. CRIME AND CLEARANCE RATES

Variable	Correlation (Significance)		
	Part I Crimes per Police Officer	Crimes Against Persons per Police Officer	Number of Crimes in Question per Police Officer
Homicide arrest rate	-0.01 (n.s.)	-0.03 (n.s.)	-0.19 (.013)
Homicide clearance rate	-0.11 (n.s.)	-0.25 (.002)	-0.24 (.002)
Rape arrest rate	-0.35 (.001)	-0.24 (.002)	-0.38 (.001)
Rape clearance rate	-0.25 (.002)	-0.11 (n.s.)	-0.21 (.006)
Robbery arrest rate	-0.27 (.001)	-0.42 (.001)	-0.44 (.001)
Robbery clearance rate	-0.14 (n.s.)	-0.26 (.002)	-0.33 (.001)
Assault arrest rate	-0.20 (.011)	-0.39 (.001)	-0.48 (.001)
Assault clearance rate	-0.11 (n.s.)	-0.09 (n.s.)	-0.05 (n.s.)
Crimes against persons			
Arrest rate	-0.21 (.007)	-0.45 (.001)	
Clearance rate	-0.10 (n.s.)	-0.12 (n.s.)	
Burglary arrest rate	-0.16 (.029)	-0.20 (.011)	-0.19 (.013)
Burglary clearance rate	-0.16 (.037)	-0.19 (.018)	-0.15 (.042)
Auto theft arrest rate	-0.13 (n.s.)	-0.22 (.005)	-0.20 (.011)
Auto theft clearance rate	-0.07 (n.s.)	-0.11 (n.s.)	-0.08 (n.s.)

NOTE: n.s. = not significant.

scale of police officers and the amount of support given to them in the form of civilian personnel. The data showed that high values of this variable were associated with higher numbers of arrests per police officer and lower clearance rates for crimes against persons. Arrest *rates* were not found to be related to this variable. This mixed pattern does not present any apparent interpretation, other than the fact that higher pay levels do not purchase higher arrest and clearance rates.

The relationships between general department characteristics and arrest and clearance rates are summarized for convenience in Table 13.

INVESTIGATIVE RESOURCES

As we have already noted, there are not very large variations among departments in the fraction of the force assigned to investigative units.

Table 13

RELATIONSHIP OF GENERAL CHARACTERISTICS
TO ARREST AND CLEARANCE RATES

Characteristics	Relationship
Size of department: Population of jurisdiction Number of sworn officers Number of investigators Budget of department	More clearances claimed per arrest in all categories.
Region of country	Arrest rates increase in the order South Central, North Central, South Atlantic, West, Northeast. Clearance rates decrease in almost the same order.
Crime workload: Part I crimes per officer Crimes against persons per officer Homicides per officer Etc.	Arrest rates decrease in all categories. Clearance rates decrease in most categories.
Salary budget per officer	Clearance rates decrease.[a] Arrests per police officer increase.[a]

[a]Controlled for size, region, and workload.

For this reason, the crime workload of investigators is highly correlated with the overall crime workload. Therefore, a comparison of arrest and clearance statistics with the crime workload of investigators would reveal the same patterns as shown in Table 13 for overall workload. If one envisions that nearly all arrests and clearances are produced by investigators, so that patrol officers are irrelevant in this regard, then the patterns can be interpreted as showing the effect of workload on investigators' outputs.

However, as we show in a companion report,(1) patrol officers actually make a major contribution to arrests and clearances, so that the appropriate analysis involves comparing these statistics to the

number of crimes per investigator while controlling for the number of crimes per police officer. Mathematically, this is the same as comparing arrest and clearance statistics with the percentage of the force assigned to investigative units, holding overall workload levels constant.

When processed in this fashion, the data showed a significant relationship between the relative amount of resouces devoted to investigation and the number of arrests and clearances per police officer, but, with one exception, arrest and clearance *rates* were not related to investigative resources. More precisely, departments with a higher proportion of investigators have more arrests and clearances per police officer per year in nearly all categories. But this effect is not strong enough to lead to significant increases in arrest and clearance rates for any crimes other than burglary. In the case of burglary, clearance rates were significantly higher in departments with a relatively large fraction of the force assigned to investigation, but burglary arrest rates were not. Thus, if the total number of officers in a department is kept constant, while a greater or lesser portion of them are assigned to investigative duties, we cannot assert that there will be any important change in overall arrest and clearance rates. This observation is concisely summarized in Table 14, along with the other relationships that will be discussed below.

ORGANIZATIONAL VARIABLES

The survey asked the extent to which patrol officers perform investigative functions. The data showed that in departments where patrolmen have major investigative duties, the number of clearances claimed per arrest is lower than in other departments for most crimes against persons, especially robbery. This finding appears to indicate that investigators make a greater attempt to associate suspects in custody with other crimes than patrolmen do, but they do not succeed in arresting a larger number of perpetrators.

The findings from the survey in regard to specialization versus generalization shown in Table 14 are not very decisive, but at a minimum they indicate that specialized units do not produce substantially

Table 14

RELATIONSHIP OF DEPARTMENT CHARACTERISTICS
TO ARREST AND CLEARANCE RATES

Characteristics	Relationship (controlled for size, region, and workload)
Percentage of force in investigative units	Higher numbers of arrests and clearances per police officer. Higher clearance rates for burglary but not other crimes. No relationship to arrest rates.
Investigative role of patrolmen	Fewer clearances per arrest for robbery and for total crimes against persons. No relationship to arrest rates.
Percentage of investigators in specialized units	No significant relationships, but every arrest and clearance rate decreased as the percent specialized increased.
Unit specializing in homicide	No relationship to homicide statistics.
Unit specializing in robbery	Lower arrest rate for robbery; number of clearances per robbery arrest increased.
Unit specializing in burglary	Lower burglary arrest rate; number of clearances per burglary arrest increased.
Unit specializing in auto theft	No relationship to auto theft statistics.
Civil service rank for investigators	None.
Detectives work in pairs	Lower arrests per police officer. Lower arrest rate for auto theft.
Amount of investigative training for recruits	None.
Amount of training for new investigators	None.

(continued)

Table 14--continued

Characteristics	Relationship (controlled for size, region, and workload)
Amount of refresher training for investigators	Clearance rates (but not arrest rates) higher for crimes against persons, especially robbery.
Emphasis in evaluation on:	
Supervisory review	None.
Audit	Higher auto theft clearances.
Arrest statistics	Fewer arrests for homicide without a clearance.
Clearance statistics	Clearance rates for all crimes higher, robbery significantly so; arrest rates unaffected.
Caseload	Lower burglary arrest and clearance rate.
Success in major investigations	Lower burglary clearance rate.
Property recovered	None.
Prosecution statistics	Lower arrest rate for homicide.
Court dispositions	Fewer arrests for homicide without a clearance.
Percentage of employees civilian	Lower arrest rate for rape.
Role of the prosecutor in investigations	None.

better arrest and clearance rates in the crime categories on which they specialize. Indeed, the data tended in the opposite direction, giving slight preference to generalized units. The findings in regard to the effect of detectives working in pairs are about what one would expect, and lead to some question as to the utility of this practice.

Among the other policies for management of the investigative function that were covered in the survey, none appear to have a sizable effect on arrest or clearance rates and therefore their potential value to a department must be judged by other criteria.* It is interesting

*Some "significant" findings that appear to be statistical accidents are (1) the relationship between audits and auto theft clearances and (2) the relationship between civilianization and rape arrests.

to note that departments placing emphasis on clearance rates for evaluation of units do indeed have higher clearance rates. One possible interpretation is that this reflects pressure on investigators to clear crimes under questionable circumstances. But another is that departments with high clearance rates are proud of them, and therefore reported on the survey that they place emphasis on clearances.

ROLE OF THE PROSECUTOR

Prosecutors' policies for screening out felony arrests (as reported by the police departments) varied substantially by region, as shown in Table 15.

Table 15

PERCENTAGE OF DEPARTMENTS REPORTING PROSECUTOR REJECTED 20 PERCENT OR MORE OF FELONY ARRESTS

Region	Percent
West	37.8
South Central	30.0
North Central	13.8
South Atlantic	6.3
Northeast	0.0
Overall	18.3

The role of the prosecutor in affecting performance levels of investigators could not be clearly discerned in the survey data (Table 14). One would think that if the prosecutor insists on making a judgment about whether an arrest should be made prior to the arrest, or if he will be involved in the investigation after the arrest, fewer arrests would be made that do not lead to clearing a crime. But the data did not show this to be the case. If the *police department* reviews prosecution and court statistics for evaluation purposes, then some care appears to be exercised in making homicide arrests.

EVIDENCE TECHNICIANS

A reasonable hypothesis is that departments with heavy commitment to mobile evidence technicians would report higher levels of evidence collection than those that use few such technicians. With minor exceptions, this was not found to be the case. To examine this relationship, we categorized the commitment to evidence collection in two ways. First, the total number of evidence technicians (sworn plus civilian) was expressed as a percent of the total sworn force of the department. These percentages were divided into the following categories having roughly equal numbers of departments:

- o no evidence technicians
- o some, but under 1.5 percent
- o 1.5-2.5 percent
- o 2.5-3.5 percent
- o over 3.5 percent

Second, the number of evidence technicians was expressed as a ratio to the number of investigators, and these ratios were similarly grouped.

A typical tabulation is given in Table 16, which compares the reported degree of collection of fingerprints at homicides with our first measure of commitment to evidence technicians. There is no systematic pattern in the figures, much less statistical significance. A similar result was found for our second measure of evidence collection. Moreover, there was no relationship between commitment to evidence technicians and checks for tool marks, chemical analysis, shoeprint-tire casting, and all other types of evidence mentioned in connection with homicides.

Since in general a considerable effort is devoted to evidence collection in cases of homicide, this finding might have been anticipated. However, there was a similar lack of relationship in regard to the reported degree of evidence checks at residential burglaries and commercial burglaries. In regard to robberies, some significant relationships were found.

The robbery data showed no difference for checking on fingerprints

Table 16

PERCENTAGE OF DEPARTMENTS IN CATEGORY REPORTING CHECK FOR FINGERPRINTS "ALWAYS" MADE AT HOMICIDES

Commitment to Evidence Technicians[a]	Percent
No evidence technicians	80.8
Under 1.5%	76.0
1.5-2.5%	85.7
2.5-3.5%	73.1
Over 3.5%	88.0
All departments	81.3

NOTE: No statistical significance on this table.

[a]Percentage of sworn force.

or chemical analysis, but there was a significant pattern for tool marks and shoeprint-tire casting (Table 17). Departments with a sizable commitment to evidence technicians were found to be more likely to make tool mark and shoeprint-tire checks at robberies. This tends to indicate that departments with evidence technicians will make a thorough search for all types of evidence even if they are unlikely to apply to a particular crime.

Now it may be claimed that the purpose of evidence technicians is not to collect *more* evidence, but to collect *better quality evidence*. This hypothesis, if true, should reveal itself in comparisons with the fraction of arrests rejected by prosecutors and in clearance and arrest rates. However, none of these relationships indicated the anticipated patterns.

The relationship of evidence technicians to cases screened out was essentially random, as shown in Table 18. In fact, 27.3 percent of departments with a heavy commitment to evidence technicians had over 20 percent of felony arrests screened out by the prosecutor, and this was approximately the same as for departments with no evidence technicians.

The commitment to evidence technicians was also compared with the various clearance rates and arrest rates discussed previously. Measures

Table 17

PERCENTAGE OF DEPARTMENTS IN CATEGORY REPORTING EVIDENCE "USUALLY" OR "ALWAYS" CHECKED AT ROBBERIES

Commitment to Evidence Technicians[a]	Percent	
	Tool Marks	Shoeprint-Tire
No evidence technicians	38.5	30.8
Under 1.5%	29.1	37.5
1.5-2.5%	35.7	50.0
2.5-3.5%	48.0	40.0
Over 3.5%	44.0	60.0
All departments	38.8	44.1

[a]Percentage of sworn force.

Table 18

PERCENTAGE OF DEPARTMENTS IN CATEGORY REPORTING INDICATED LEVEL OF SCREENING

Commitment to Evidence Technicians[a]	Percentage of Felony Arrests Rejected by Prosecutor		
	Under 5%	5 - 20%	Over 20%
No evidence technicians	38.1	33.3	28.6
Under 1.5%	54.5	31.8	13.6
1.5-2.5%	58.5	24.4	17.1
2.5-3.5%	60.9	21.7	17.4
Over 3.5%	45.5	27.3	27.3

NOTE: No statistical significance on this table.

[a]Percentage of force evidence technicians.

of commitment to evidence technicians were calculated as percentage of the force, ratio to investigators, and actual count of technicians. (In this case there was no need to group the measures of commitment into categories as shown in the preceding tables.)

Simple correlations were calculated, and also correlations that controlled for other departmental characteristics. With two exceptions, no relationships were found between evidence technicians and clearance or arrest rates. These two were sufficiently unusual and inconsistent that they may be viewed as statistical accidents. (We refer here again to the fact that *some* relationships will be found significant if a large number of statistical tests are performed.) These were: (1) the fraction of homicides leading to an arrest was *lower* in departments with many evidence technicians than in those with few (but the same pattern did not appear in homicide *clearance* rates), and (2) the fraction of auto thefts leading to an arrest was *higher* in departments with many evidence technicians (also not appearing significant for clearance rates). These were the only significant relationships in a long list that included burglary clearance rate, burglary arrest rate, robbery clearance rate, etc.

We also compared reported frequency of performing evidence checks in homicides, burglaries, and robberies with the clearance and arrest rates for the corresponding crimes. As we mentioned above, these reported evidence checks are essentially independent of the number of evidence technicians. Again, only two inconsistent relationships were found: (1) homicide arrest rates (but not clearance rates) were *lower* in departments reporting high levels of checking chemical analyses at homicides, and (2) robbery arrest rates (but not clearance rates) were significantly *higher* in departments reporting collection of shoeprints and tire castings at robberies.

For emphasis, we list the relationships that proved to be non-significant for burglaries:

burglary arrest rate or clearance rate	vs.	reported frequency of fingerprint checks at burglaries

burglary arrest rate or clearance rate	vs.	reported frequency of tool mark checks at burglaries
burglary arrest rate or clearance rate	vs.	reported frequency of chemical analysis at burglaries
burglary arrest rate or clearance rate	vs.	reported frequency of shoeprint and tire casting at burglaries

The analogous relationships for homicide and robbery were also insignificant, with the exceptions noted above.

In summary, the data did not reveal any meaningful and important impacts of evidence technicians on reported quantities of evidence collected or on clearance, arrest, or prosecutor rejection rates.

CITY-COUNTY DIFFERENCES

It should be noted that although all processing for this study was carried out separately for city and county police departments, under the assumption that they would be substantially different in many regards, the actual distinctions were quite minor and have been mentioned in the text wherever appropriate.

Appendix A

POLICE DEPARTMENTS SURVEYED

City Police Departments

*Birmingham, Alabama
Huntsville, Alabama
Mobile, Alabama
*Montgomery, Alabama
*Tuscaloosa, Alabama

*Phoenix, Arizona
*Tucson, Arizona
*Little Rock, Arkansas
*Anaheim, California
Bakersfield, California

*Berkeley, California
Burbank, California
Compton, California
*Fremont, California
*Fresno, California

*Fullerton, California
Garden Grove, California
*Glendale, California
Huntington Beach, California
Inglewood, California

*Long Beach, California
*Los Angeles, California
*Oakland, California
*Pasadena, California
Pomona, California

*Richmond, California
*Riverside, California
Sacramento, California
*San Bernardino, California
*San Diego, California

*San Francisco, California
*San Jose, California
*Santa Ana, California
Santa Barbara, California
Santa Monica, California

*Stockton, California
Sunnyvale, California
*Torrance, California
*Colorado Springs, Colorado
*Denver, Colorado

City Police Departments

*Lakewood, Colorado
*Pueblo, Colorado
Bridgeport, Connecticut
*Greenwich, Connecticut
*Hartford, Connecticut

New Britain, Connecticut
New Haven, Connecticut
Norwalk, Connecticut
Stamford, Connecticut
Waterbury, Connecticut

*Wilmington, Delaware
*Washington, D.C.
*Clearwater, Florida
Daytona Beach, Florida
*Fort Lauderdale, Florida

*Gainesville, Florida
Hialeah, Florida
*Hollywood, Florida
*Miami, Florida
*Miami Beach, Florida

Orlando, Florida
*St. Petersburg, Florida
Tallahassee, Florida
Tampa, Florida
*West Palm Beach, Florida

*Atlanta, Georgia
Augusta, Georgia
*Columbus, Georgia
Macon, Georgia
*Savannah, Georgia

*Hilo, Hawaii
Honolulu, Hawaii
Chicago, Illinois
*Evanston, Illinois
Joliet, Illinois

Peoria, Illinois
*Rockford, Illinois
*Springfield, Illinois
East Chicago, Indiana
*Evansville, Indiana

*Responded to survey questionnaire.

City Police Departments

*Fort Wayne, Indiana
*Gary, Indiana
Hammond, Indiana
Indianapolis, Indiana
*South Bend, Indiana

*Cedar Rapids, Iowa
Davenport, Iowa
*Des Moines, Iowa
*Kansas City, Kansas
*Topeka, Kansas

*Wichita, Kansas
*Lexington, Kentucky
Louisville, Kentucky
*Baton Rouge, Louisiana
New Orleans, Louisiana

*Shreveport, Louisiana
*Portland, Maine
Baltimore, Maryland
*Boston, Massachusetts
Brockton, Massachusetts

Brookline, Massachusetts
Cambridge, Massachusetts
Fall River, Massachusetts
Lawrence, Massachusetts
*Lowell, Massachusetts

Lynn, Massachusetts
New Bedford, Massachusetts
Newton, Massachusetts
*Quincy, Massachusetts
Springfield, Massachusetts

*Worcester, Massachusetts
Ann Arbor, Michigan
Dearborn, Michigan
*Detroit, Michigan
*Flint, Michigan

Grand Rapids, Michigan
*Kalamazoo, Michigan
Lansing, Michigan
Livonia, Michigan
*Pontiac, Michigan

*Saginaw, Michigan
Warren, Michigan
Duluth, Minnesota
*Minneapolis, Minnesota
St. Paul, Minnesota

City Police Departments

*Jackson, Mississippi
*Independence, Missouri
*Kansas City, Missouri
St. Louis, Missouri
*Springfield, Missouri

*Lincoln, Nebraska
*Omaha, Nebraska
Las Vegas, Nevada
*Reno, Nevada
Manchester, New Hampshire

Atlantic City, New Jersey
*Bayonne, New Jersey
Camden, New Jersey
East Orange, New Jersey
Elizabeth, New Jersey

Hoboken, New Jersey
*Jersey City, New Jersey
*Newark, New Jersey
*Passaic, New Jersey
Patterson, New Jersey

*Trenton, New Jersey
Woodbridge, New Jersey
*Albuquerque, New Mexico
Albany, New York
Binghamton, New York

Buffalo, New York
*Mount Vernon, New York
New Rochelle, New York
*New York, New York
Niagara Falls, New York

*Rochester, New York
Schenectady, New York
*Syracuse, New York
Utica, New York
*White Plains, New York

*Yonkers, New York
Charlotte, North Carolina
*Durham, North Carolina
*Greensboro, North Carolina
*Raleigh, North Carolina

*Winston-Salem, North Carolina
Akron, Ohio
Canton, Ohio
*Cincinnati, Ohio
*Cleveland, Ohio

*Responded to survey questionnaire.

City Police Departments

Columbus, Ohio
Dayton, Ohio
Parma, Ohio
Toledo, Ohio
Youngstown, Ohio

Oklahoma City, Oklahoma
Tulsa, Oklahoma
*Eugene, Oregon
*Portland, Oregon
Allentown, Pennsylvania

*Bethlehem, Pennsylvania
Chester, Pennsylvania
Erie, Pennsylvania
Harrisburg, Pennsylvania
*Philadelphia, Pennsylvania

*Pittsburgh, Pennsylvania
*Reading, Pennsylvania
Scranton, Pennsylvania
Upper Darby, Pennsylvania
*Pawtucket, Rhode Island

Providence, Rhode Island
Warwick, Rhode Island
*Charleston, South Carolina
Columbia, South Carolina
Greenville, South Carolina

Chattanooga, Tennessee
Knoxville, Tennessee
Memphis, Tennessee
Nashville, Tennessee
*Amarillo, Texas

Austin, Texas
*Beaumont, Texas
*Corpus Christi, Texas
*Dallas, Texas
*El Paso, Texas

City Police Departments

*Fort Worth Texas
*Houston, Texas
*Lubbock, Texas
Pasadena, Texas
*San Antonio, Texas

*Waco, Texas
*Salt Lake City, Utah
*Alexandria, Virginia
*Arlington, Virginia
Chesapeake, Virginia

*Hampton, Virginia
Norfolk, Virginia
*Newport News, Virginia
*Portsmouth, Virginia
*Richmond, Virginia

Roanoke, Virginia
Virginia Beach, Virginia
*Seattle, Washington
Spokane, Washington
*Tacoma, Washington

Charleston, West Virginia
Green Bay, Wisconsin
Kenosha, Wisconsin
Madison, Wisconsin
Milwaukee, Wisconsin

Racine, Wisconsin
West Allis, Wisconsin

---

*Responded to survey questionnaire.

County Police Departments and Sheriffs

Jefferson County, Alabama
*Mobile County, Alabama
*Pima County, Arizona
Maricopa County, Arizona
*Alameda County, California

*Contra Costa County, California
*Fresno County, California
Kern County, California
Los Angeles County, California
Marin County, California

Monterey County, California
Orange County, California
Riverside County, California
*Sacramento County, California
*San Bernardino County, California

*San Diego County, California
San Joaquin County, California
San Mateo County, California
Santa Barbara County, California
*Santa Clara County, California

*Sonoma County, California
Tulare County, California
*Ventura County, California
Brevard County, Florida
Broward County, Florida

Escambia County, Florida
Jacksonville (Consol. City), Florida
*Dade County Public Safety Department, Florida
*Hillsborough County, Florida
*Orange County, Florida

Palm Beach County, Florida
*Pinellas County, Florida
*Cobb County Police Department, Georgia
*DeKalb County Police Department, Georgia
*Maui County Police Department, Hawaii

*Cook County Sheriff's Police, Illinois
East Baton Rouge Parish, Louisiana
Calcasieu County, Louisiana
Jefferson Parish, Louisiana
Baltimore County Police Department, Maryland

*Anne Arundel County Police Department, Maryland
Montgomery County Police Department, Maryland
*Prince George's County Police Department, Maryland
Kent County, Michigan
Macomb County, Michigan

Hennepin County, Minnesota
St. Louis County Police Department, Missouri
Clark County, Nevada
Erie County, New York
*Monroe County, New York

*Nassau County Police Department, New York
*Onondaga County, New York
Suffolk County, New York
Cuyahoga County, Ohio
*Franklin County, Ohio

*Hamilton County, Ohio
Summit County, Ohio
*Multnomah County Public Safety Department, Oregon
Charleston County, South Carolina
*Shelby County, Tennessee

Bexar County, Texas
Tarrant County, Texas
*Salt Lake County, Utah
*Fairfax County Police Department, Virginia
*Henrico County Police Department, Virginia

*King County Public Safety Department, Washington
Pierce County, Washington
Spokane County, Washington
*Dane County, Wisconsin

---

*Responded to survey questionnaire.

Appendix B

SURVEY INSTRUMENT

OMB NUMBER 43S-7400?

SURVEY

OF THE CRIMINAL INVESTIGATION PROCESS IN MUNICIPAL AND COUNTY POLICE DEPARTMENTS

THE RAND CORPORATION 1700 MAIN STREET SANTA MONICA, CA. 90406

1

1-3 *Serial Number* [ ][ ][ ] (1–4)

4-5 *Card* [0][1]

Date:_____

I. GENERAL INFORMATION ABOUT YOUR POLICE DEPARTMENT OR LAW ENFORCEMENT AGENCY

1 Department's official name:_____

2 Geographical jurisdiction (Name of City, Town, County, or other jurisdiction):_____

3 Police chief or highest ranking career officer:

NAME:_____

TITLE:_____

ADDRESS:_____

_____

4 Person or organization to whom the person named in question 3 reports:

TITLE:_____

NAME:_____

ADDRESS:_____

_____

5 Estimated population of department's jurisdiction:

6-9 a. Total daytime population (weekday) [ ],[ ][ ][ ],[ ][ ][ ]

10-13 b. Total residential population [ ],[ ][ ][ ],[ ][ ][ ]

c. Check the year for which these estimates apply.

14-0 [ ] 1970

14-1 [ ] 1971

14-2 [ ] 1972

14-3 [ ] 1973

6 Estimated minority group population:

15-17 [ ][ ].[ ] percent Black or Negro

18-20 [ ][ ].[ ] percent Hispanic, Chicano, other Spanish-American

21-23 [ ][ ].[ ] percent other large minority group

24 ↳Specify:_____

7 Area of agency's jurisdiction:

25-31 [ ],[ ][ ][ ],[ ][ ][ ] square miles

8 Department's budget for current fiscal year:

32-37 $ [ ][ ][ ],[ ][ ][ ],[ ][ ][ ] salaries and wages

38-43 $ [ ][ ][ ],[ ][ ][ ],[ ][ ][ ] facilities and equipment

44-49 $ [ ][ ][ ],[ ][ ][ ],[ ][ ][ ] total budget

9 Department's present manpower:

	Authorized	Actual	
50-59	[ ][ ],[ ][ ][ ]	[ ][ ],[ ][ ][ ]	number of sworn officers
60-67	[ ],[ ][ ][ ]	[ ],[ ][ ][ ]	number of full-time civilian employees
68-75	[ ],[ ][ ][ ]	[ ],[ ][ ][ ]	others (reserve officers, crossing guards, part-time, etc.)

10 Does the department have separate commands for geographical subdivisions (precincts, districts, or divisions)?

76-1 [ ] Yes → How many subdivisions? 77-78 [ ][ ]

76-2 [ ] No → SKIP TO QUESTION 12

11 Are investigators* organized along the same geographical lines?

79-1 ☐ Yes
79-2 ☐ No

12 Please fill in the following table for the year 1972. If certain information is not available, mark N/A.

	Crime Type (FBI Categories)	6 Number Reported	12 Number Unfounded	17 Actual Number	23 Number of Arrests: Total	29 Number of Arrests: By Patrol	35 Number of Arrests: By Investigation	41 Number Cleared*: Total	47 Number Cleared*: By Arrest	53 Number Cleared*: Other
Card 02	Homicide and non-negl. manslaughter	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 03	Forcible rape	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 04	Robbery	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 05	Agg. or felonious assault	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 06	Burglary	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 07	Larceny, $50 and over	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 08	Auto theft	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 09	All other felonies	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 10	All other crimes	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐
Card 16	Total crimes	☐☐☐,☐☐☐	☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐☐,☐☐☐	☐☐,☐☐☐

*See GLOSSARY for explanation of items marked with an asterisk.

II. INVESTIGATORS' RANK, QUALIFICATIONS, TRAINING AND SUPERVISION

Card 4 5 | 1 | 1 |

13 Some departments have a special title for officers assigned to investigative duties (such as "detective" inspector" or "investigator"), whether or not they have a special official rank. Does your department have such a job title?

6-1 ☐ Yes

6-2 ☐ No → SKIP TO QUESTION 17

14 What is this title?

_____

15 How many officers in the department have this title?

7-10 ☐, ☐☐☐

16 Is the job title in question 14 a civil service rank?

11-1 ☐ Yes

11-2 ☐ No → Who is authorized to appoint officers to this title?

_____

17 Do investigators ordinarily work in pairs?

12-1 ☐ Yes

12-2 ☐ No

18 How many hours of formal investigative training are provided to recruits when they enter the department?

13-15 ☐☐☐

19 How many hours of additional formal investigative training are provided to newly appointed investigators?

16-18 ☐☐☐

20 If routine refresher training is provided to investigators, please specify frequency.

19-21 ☐☐☐ number of hours of training

22 _____ how often provided to an investigator

III. ORGANIZATION OF THE INVESTIGATIVE FUNCTION

21 Total number of personnel in the department assigned primarily to investigative duties.

23-26 ☐,☐☐☐ sworn

27-30 ☐,☐☐☐ civilian

22 Are the investigators (or most of them) responsible to a centralized commander?

31-1 ☐ Yes → What is his title? _____

31-2 ☐ No

23 In some departments investigators can specialize in one or more of the crime types listed below. Add to the list the other specialties in your department.

	Code Letter	Specialty
	A	Homicide
	B	Sex crimes
	C	Commercial theft
	D	Juvenile crime
	E	Auto theft
	F	Internal inspection
32-33	G	_____
34-35	H	_____
36-37	I	_____
38-39	J	_____
40-41	K	_____
42-43	L	_____
44-45	M	_____
46-47	N	_____

Card | 1 | 2 |

24 In this table list in detail the investigative units in the department. Include all geographical subdivisions. Do not include personnel primarily assigned to uniformed patrol duty. In last column enter code letters from questions 23 for specialties which investigators in the unit may have. (Mark N/A if no specialties).

Name of unit	Number of Personnel		Check Primary functions			Rank use. 0 = never, 1 rarely 2 = sometimes, 3 = frequently				Specialties
	With title in quest. 14	Other Investigators	Investig. Reported Crimes	Internal Inspection	Intell., Vice, Org. Crime, Narcotics	Arrest* Warrants	Search Warrants	Under-Cover agents	Certified or registered informants	

TOTAL ____ ____

↑ Should agree with question 15.

Use additional pages (copies of this page) if more than 14 investigative units.

Card 1 | 3 (4 5)

25 How is the quality of investigative units monitored? On each line enter one of the following codes: 0 = Not used, 1 = Minor importance, 2 = Important, 3 = Very important

6 ☐ Supervisory review of investigators' reports, initiative, etc.

7 ☐ Audit (detailed follow-up investigation of randomly selected cases)

8 ☐ Arrest statistics

9 ☐ Clearance statistics

10 ☐ Caseload

11 ☐ Property recovered

12 ☐ Success in a major investigation

13 ☐ Prosecution or indictment statistics

14 ☐ Court conviction statistics

15 ☐ Other
→Specify:_____

26 Do uniformed patrol officers perform investigative functions other than preparing crime reports, securing crime scenes, notifying investigative units, and necessary actions related to pickup arrests?

16-1 ☐ Yes → Fill in table on next page (Question 27)

16-2 ☐ No → SKIP TO QUESTION 28

27 List the crime types for which the patrol force has an investigative function (e.g., all crimes, all misdemeanors, burglary, etc.), and check the roles of the patrol force.

	Crime Type	Check Crime Scene	Preliminary Investigation	Full Investigation	Stake-out or surveillance	Other ►(Specify)_____	Other ►(Specify)_____
17-24							
25-32							
33-40							
41-48							
49-56							
57-64							

28 Has there been any significant reorganization of the investigative units during the last two years?

65-1 ☐ Yes

65-2 ☐ No → SKIP TO QUESTION 30

29 Please describe briefly the change and how it improved operations or management.

_____

_____

_____

_____

_____

30 Is a significant reorganization of the investigative units planned for the next year?

66-1 ☐ Yes

66-2 ☐ No

66-3 ☐ Can't say

IV. INTERACTION WITH OTHER CRIMINAL JUSTICE AGENCIES

31 Does your department have formal organizational arrangements for sharing investigative or intelligence information with one or more local law enforcement agencies?

67-1 ☐ Yes

67-2 ☐ No

32 Are misdemeanors and felonies both handled by the same prosecuting agency in your jurisdiction?

68-1 ☐ Yes

68-2 ☐ No

33 How soon after an arrest must the arrestee be arraigned or a complaint* sought? (By statute or administrative practice.)

69-70 _____

_____

34 Who in the department generally seeks a complaint from the prosecutor or court?

71-1 ☐ Arresting officer

71-2 ☐ Investigating officer

71-3 ☐ Liaison or escort officer

71-4 ☐ Varies by unit or crime type → Explain _____ _____ _____

71-5 ☐ Other
→ Specify: _____

_____

35 For each of the listed crime types, indicate the extent to which a representative of the local prosecutor's office would be involved in an investigation prior to an arrest.
Enter the highest applicable code for each crime:

0 = Prosecutor never involved before an arrest
1 = Prosecutor sometimes advises on whether to arrest
2 = Prosecutor always advises on whether to arrest
3 = Prosecutor sometimes involved in investigation
4 = Prosecutor always involved in investigation
5 = Prosecutor has primary responsibility for the entire investigation

72 ☐ Homicide

73 ☐ Robbery

74 ☐ Large theft or burglary

75 ☐ Major drug case

76 ☐ Official misconduct or corruption

77 ☐ White-collar crime

*See Glossary

36 If an investigation of one of the listed crimes was necessary <u>after</u> an arrest, to what extent would the prosecutor supervise the investigation? Enter the appropriate code on each line:

0 = Prosecutor <u>never</u> supervises
1 = Sometimes
2 = Usually
3 = Always

Card 1 | 4 | 5

6 ☐ Homicide

7 ☐ Robbery

8 ☐ Large theft or burglary

9 ☐ Major drug case

10 ☐ Official misconduct or corruption

11 ☐ White-collar crime

37 Do any local prosecutors have their own investigative staff?

12-1 ☐ Yes

12-2 ☐ No → SKIP TO QUESTION 39

38 Are the investigators who are assigned to the prosecutor members of your department?

13-1 ☐ Yes, all of them

13-2 ☐ Yes, some of them

13-3 ☐ No

39 What percentage of felony arrests are screened out or rejected by the prosecutor without drawing of an affidavit or formal complaint?

14 (If data not available please check here ☐ and record estimated percent below.)

15-1 ☐ less than 5%

15-2 ☐ 5 - 20%

15-3 ☐ 20 - 50%

15-4 ☐ 50 - 70%

15-5 ☐ more than 70%

40 Does your department grant or seek leniency for defendants who will provide information to the department on criminal activities?

16-1 ☐ Yes

16-2 ☐ No

41 How many search warrants were obtained by your department in 1972?

17-21 ☐☐,☐☐☐

42 How many arrests in 1972 were made pursuant to an arrest warrant?

22 (If number of arrests is unavailable, but you have data for the number of arrest warrants--including warrants that were not executed--check here ☐ and enter the number of warrants below.)

23-27 ☐☐,☐☐☐ number of arrest warrants obtained as the result of an investigation in your jurisdiction

28-32 ☐☐,☐☐☐ number of other arrest warrants (including out-of-jurisdiction, bail jumping, and so forth)

33-37 ☐☐,☐☐☐ total number of arrest warrants

V. INVESTIGATIVE POLICIES, OPERATIONS, AND PROCEDURES

43 Does your department use evidence technicians who are sent to the crime scene?

38-1 ☐ Yes → How many are there?

39-41 ☐☐☐ number of civilians

42-44 ☐☐☐ number of sworn officers

38-2 ☐ No

44 Please estimate how frequently the following physical evidence checks are made at the crime scene.

Enter 0 = never, 1 = rarely, 2 = sometimes, 3 = usually, 4 = always

45	CRIME TYPE	Physical Evidence Check: Finger prints	Tool marks	Chemical Analysis	Shoeprint and tire casting	Other ►(Specify) _____
46-50	Homicide					
51-55	Residential burglaries					
56-60	Commercial burglaries					
61-65	Robberies					

45 Does your department monitor or regulate pawn shops or other potential outlets for stolen goods?

66-1 ☐ Yes → Monitor? ☐ 67-1 / Regulate? ☐ 67-2

66-2 ☐ No

46 Once a case is assigned to a unit, what is the usual method for assigning cases to investigators?

68-1 ☐ By rotation*

68-2 ☐ By assigned period of time

68-3 ☐ According to specialty of investigator

68-4 ☐ Other
└►Specify: _____

47 Does your department have any innovative investigative programs or policies showing enough success or promise that other departments should know about them?

69-1 ☐ Yes

69-2 ☐ No → SKIP TO QUESTION 49

*See Glossary.

48 Please describe the programs or policies briefly, or attach previously prepared descriptions. Include all LEAA-funded grants or contracts related to investigation and all anti-burglary and anti-robbery programs.

VI. RECORDS AND FILES

49 Do investigators complete any kind of formal activity log* to account for how their time was spent?

70-1 ☐ Yes → Are individual or unit activities periodically summarized?

71-1 ☐ Yes

71-2 ☐ No

70-2 ☐ No

50 Are crime, arrest, and disposition records available to the department in computer readable form?

		-1		-2	
72	Crime Reports	☐	Yes	☐	No
73	Arrest Reports	☐	Yes	☐	No
74	Court Dispositions	☐	Yes	☐	No
75	Summary Statistics	☐	Yes	☐	No

51 Does the department have any file (manual or computer readable) in which all of the following information is available in one place for any reported crime?

- crime report
- whether an arrest made

*See Glossary.

Cont.

15

Cont.

- whether cleared
- whether prosecuted
- court disposition

76-1 ☐ Yes

76-2 ☐ No

Card 1 | 4 5

52 Please check the files maintained by the department to support investigations.

	FILE	Manual	Computerized
6	M.O. file		
7	fingerprints		
8	known offender		
9	sex offender		
10	hot car		
11	mug shot		
12	organized crime intelligence		
13 14	other►(specify:_____)		
15 16	other		
17 18	other		
19 20	other		
21 22	other		
23 24	other		

53 Does your department have a crime analysis section which analyzes patterns* of past crime?

25-1 ☐ Yes

25-2 ☐ No

54 For each search warrant obtained, do the department's records indicate whether the warrant led to successful recovery of property?.

26-1 ☐ Yes

26-2 ☐ No

*See Glossary.

VII. GENERAL

55 After the return of these questionnaires, The Rand Corporation will prepare a report summarizing the responses of all the departments. What information about the responses of other departments would be of particular interest to your department?

56 What information (other than topics covered in this questionnaire) about the organization and effectiveness of investigative units in other departments would be useful to your department?

57 A small number of departments which respond to this questionnaire will be selected for detailed analysis of their investigative function. This will involve interviews with department officials, review of sample case folders, observation of investigative activities, and collection of data for further analysis by Rand. Does your department wish to be considered for selection?

27-1 ☐ Yes

27-2 ☐ No

58 It would be helpful if you could attach documents and forms referred to in this questionnaire. Please check below all materials you have attached.

√	Document	Question Number
	Department's annual report	
	Current organization chart	
	List of ranks and pay ranges	
	Description of evidence technician unit	43
	Description of innovative programs or policies	48
	Blank copy of investigator's activity log	49
	Example of summarized activities	49
	Coding form or data format for computer readable records:	50
	Crime report	
	Arrest report	
	Court disposition	
	Recent computer summary of crime & arrests	
	Coding form for computerized files:	52
	M.O. file	
	fingerprints	
	known offender	
	sex offender	
	hot car	
	mug shot	
	organized crime intelligence	
	other	

Cont.

18

59 Who completed this questionnaire?

Title & Name _____

Unit _____

Telephone Number Area Code _____

***

Thank you for your cooperation.
Please return completed questionaire and attatchments to
Dr. Jan M. Chaiken, The Rand Corporation
1700 Main Street, Santa Monica, California 90406

Cont.

- whether cleared
- whether prosecuted
- court disposition

76-1 ☐ Yes

76-2 ☐ No

4 5
Card 1 5

52 Please check the files maintained by the department to support investigations.

	FILE	Manual	Computerized
6	M.O. file		
7	fingerprints		
8	known offender		
9	sex offender		
10	hot car		
11	mug shot		
12	organized crime intelligence		
13 14	other►(specify:_____)		
15 16	other		
17 18	other		
19 20	other		
21 22	other		
23 24	other		

53 Does your department have a crime analysis section which analyzes patterns* of past crime?

25-1 ☐ Yes

25-2 ☐ No

54 For each search warrant obtained, do the department's records indicate whether the warrant led to successful recovery of property?

26-1 ☐ Yes

26-2 ☐ No

*See Glossary.

Rand
SANTA MONICA, CA. 90406

Appendix C

SAMPLE COVER LETTER

March 27, 1974

We are writing to ask your cooperation in a nationwide study of criminal investigation procedures and policies in municipal and county police agencies. This study is being conducted by The Rand Corporation under a grant from the National Institute of Law Enforcement and Criminal Justice, the research and demonstration arm of LEAA.

One of the objectives of the study is to develop a comprehensive picture of investigative units, their organization, their procedures, and the special resources they use--such as computerized information files or mobile laboratory equipment. Your department can help us complete this important task by filling out and returning the enclosed questionnaire.

After the questionnaires are returned, we will select a few interested departments, varying in size, type of community, and organization, for special observation and collection of data. (Question 57 asks whether your department would be interested.) Through a combination of analysis of the questionnaire responses and the detailed studies of selected departments, we expect to produce new insights into the investigative function. We think these insights will provide guidance to you and other law enforcement officials on possible ways to improve your investigative effectiveness through organizational changes, additional training, and adoption of methods that have proved their worth elsewhere.

We have made careful preparation, described in an attachment, to assure that all responses will be analyzed in strict confidence by a team having broad experience in the criminal justice system. We hope you will agree to participate by returning the enclosed postcard and indicating a completion date prior to April 15, 1974.

Sincerely,

Peter W. Greenwood and Sorrel Wildhorn
Project Co-Directors

Encls.

Appendix C *(continued)*

SAMPLE COVER LETTER ATTACHMENT

CONFIDENTIALITY CONDITIONS

By agreement with the National Institute of Law Enforcement and Criminal Justice, your response to our questionnaire will be held in confidence by Rand, according to the following provisions:

1. Any publication concerning the results of this survey will provide only limited descriptive information about identified departments, such as would always be publicly available--for example, size of department, population of jurisdiction, and total number of investigators.
2. All other published tabulations of data, statistical findings, and illustrative examples will be presented in such a way that individual departments cannot be identified, except in cases where Rand obtains *explicit written consent in advance* from the department in question.
3. The department will not be identified on computer-readable records generated from the returned questionnaires, except by the serial number shown on the first page of the questionnaire.
4. No copies of the completed questionnaires or the computer-readable files will be provided to anyone outside Rand, and the data will not be used by Rand for any purposes other than statistical analysis of the characteristics of investigative units.

59 Who completed this questionnaire?

Title & Name _____

Unit _____

Telephone Number Area Code _____

***

Thank you for your cooperation.
Please return completed questionaire and attatchments to
Dr. Jan M. Chaiken, The Rand Corporation
1700 Main Street, Santa Monica, California 90406

Appendix D

SAMPLE POSTCARD

_____

(name of law enforcement agency)

☐ will
☐ will not respond to your questionnaire.

You may expect a response by _____/_____/74.

Signed _____

Rand
SANTA MONICA, CA. 90406

Appendix E

SAMPLE FOLLOW-UP LETTER April 26, 1974

Several weeks ago we sent you a questionnaire entitled "Survey of the Criminal Investigation Process in Municipal and County Police Departments," together with a postcard on which you could indicate whether or not your department planned to return a completed questionnaire.

To date, over 75 of the selected departments have indicated they will respond, and we have received many of their questionnaires. The variation in their answers to questions about the organization of investigative units, their procedures, and special equipment such as computerized files and laboratory equipment indicates that a complete response is needed for us to obtain a truly comprehensive picture.

However, we have not yet received your postcard, and we would appreciate it if you could indicate your plans by filling in the attached card. If your copy of the questionnaire has been misplaced, please call one of us collect, and we will be glad to mail you another one.

Sincerely,

Peter W. Greenwood
Sorrel Wildhorn

Peter W. Greenwood
Sorrel Wildhorn
Project Co-Directors

Encl.

Appendix F

SAMPLE CODING SHEET

Department			
Card No.	1	2	5

CRIMES AGAINST PERSONS	7			
Homicide	11			
Sex Crimes	15			
Robbery	19			
Banks	23			
CRIMES AGAINST PROPERTY	27			
Burglary (General)	31			
Commercial	35			
Residential	39			
Commercial Theft	43			
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