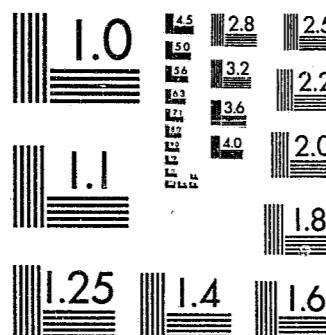


National Criminal Justice Reference Service

**ncjrs**

This microfiche was produced from documents received for inclusion in the NCJRS data base. Since NCJRS cannot exercise control over the physical condition of the documents submitted, the individual frame quality will vary. The resolution chart on this frame may be used to evaluate the document quality.



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

Microfilming procedures used to create this fiche comply with the standards set forth in 41CFR 101-11.504.

Points of view or opinions stated in this document are those of the author(s) and do not represent the official position or policies of the U. S. Department of Justice.

**National Institute of Justice  
United States Department of Justice  
Washington, D.C. 20531**

3/21/86

LAW ENFORCEMENT STATISTICS:

THE STATE OF THE ART

by

Craig D. Uchida  
Carol Bridgeforth  
Charles F. Wellford

Copyright 1984

Institute of Criminal Justice  
and Criminology  
University of Maryland  
College Park, Maryland 20742

95455

U.S. Department of Justice  
National Institute of Justice

This document has been reproduced exactly as received from the person or organization originating it. 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 National Institute of Justice.

Permission to reproduce this copyrighted material has been granted by  
Institute of Criminal Justice & Criminology/University of Maryland  
to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the copyright owner.

95455  
CR-Sent  
1-7-87

95455

## ABSTRACT

This report describes the state of the art of law enforcement statistics. Of primary concern are those data that deal specifically with management, administration, and operations of law enforcement agencies throughout the country. The report is based primarily on an extensive review of the literature (particularly studies that collected and analyzed data from police agencies) and a careful scrutiny of existing statistics that are available on computer tapes or in manuscript form. In addition, two "users' surveys" were conducted to determine the usefulness and availability of law enforcement statistics to police administrators and academicians. Finally, recommendations are presented for a national level data collection effort.

## ACKNOWLEDGEMENTS

Many individuals and organizations contributed their thoughts and resources to this report.

Gary Hayes, Executive Director, and Greg Thomas, Senior Research Associate, both of the Police Executive Research Forum developed the user survey of police departments. Forum staff members were responsible for compiling names and addresses and sending the questionnaires to the agencies.

Dennis Rogan, Research Assistant at the Institute of Criminal Justice and Criminology, University of Maryland provided the computer skills to analyze portions of the data.

Thomas Henderson, Executive Director of the Criminal Justice Statistics Association put us in contact with individuals from state Statistical Analysis Centers. Marcia Cohan of the Iowa SAC was particularly helpful in providing us with information.

The Inter-University Consortium for Political and Social Research (ICPSR) supplied us with the data for Dr. Elinor Ostrom's Police Services Study (Phases I and II) and for the Kansas City Police Department's Response Time Analysis. Neither the consortium nor the original collectors of the data bear any responsibility for the analysis or interpretations presented here.

This report was supported by the Bureau of Justice Statistics, Department of Justice, grant number 84-BJ-CX-0001. Steven R. Schlesinger, Director; Benjamin H. Renshaw III, Deputy Director; and Paul D. White of the BJS provided useful comments on an initial draft of this report.

TABLE OF CONTENTS

	<u>Page</u>
<b>Abstract</b>	i
<b>Acknowledgements</b>	ii
<b>Introduction</b>	1
<b>Section I</b> <b>Definitions</b>	5
<b>Section II</b> <b>Law Enforcement Statistics: An Historical Overview</b>	9
<b>Section III</b> <b>Input</b>	24
<b>Section IV</b> <b>Process</b>	34
<b>Section V</b> <b>Output</b>	54
<b>Section VI</b> <b>Summarization of the Data</b>	59
<b>Section VII</b> <b>Users' Surveys</b>	68
<b>Section VIII</b> <b>Conclusions and Recommendations</b>	75
<b>Appendices</b>	80
<b>References</b>	116

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
1.	Selected Characteristics of Dispatches	31
2.	Survey Results (FOP)	35
3.	Survey Response (ICMA)	38
4.	Impact of Inflation on Department's Budgets (ICMA)	40
5.	Minorities and Women in the Police Service (ICMA)	41
6.	Range and Median Numbers of Women Officers, by Rank (PF)	43
7.	Number of Unmarked Units per 100 Sworn Officers (PF)	44
8.	Data Collected by SAC	52
9.	Comparison of Data Sets by Descriptive Variables	60
10.	Utility of Statistics to Large Police Departments	70

## INTRODUCTION

Since its establishment in 1979, the Bureau of Justice Statistics (BJS) has consolidated federal statistical efforts dealing with crime and criminal justice. New statistical initiatives have begun so that a comprehensive statistical program describing the nature of crime and the operation of criminal justice systems could be created for the United States. Most notable among these statistical series are the National Crime Survey, National Prisoners Statistics, National Jail Census, Uniform Parole and Probation Reports, Law Enforcement Employment and Expenditure Data, Sourcebook of Criminal Justice Statistics, and National Court Statistics being developed by the National Center for State Courts. In addition, the bureau has provided substantial support for the development of state statistical analysis centers and state uniform crime reports programs and has aided in many other ways the Uniform Crime Reports series. Within the last three years (1982 to the present), the Bureau of Justice Statistics has sponsored two major redesign efforts. The National Crime Survey Redesign, conducted by a consortium led by the Bureau of Social Science Research, is a project that seeks to improve the National Crime Survey and to develop better ways to utilize the results of that survey. The BJS has also funded a consortium led by Abt. Inc. to work with the law enforcement community, the Federal Bureau of Investigation (FBI), and other interested parties to consider ways to improve the Uniform Crime Reports.

Currently the only continuing national statistical series dealing with the characteristics of law enforcement agencies is the annual survey conducted as part of the Uniform Crime Reports. In that survey, the FBI requests information on the number of police personnel, the

distribution of police personnel into sworn and non-sworn and uniformed and civilian categories, and the modes of uniformed personnel deployment. Data are also collected on injuries to and deaths of law enforcement personnel. While these data have proven useful, they are of limited scope given the primary focus of the Uniform Crime Reports on crimes known to police.

Overall, the collection of law enforcement management and administrative statistics on the national, statewide, or local level lags far behind other areas in the criminal justice system. Furthermore, it is unclear what has been collected in the past, by whom, and how reliable the available data are.

This state of the art report attempts to clarify the position of law enforcement statistics. This report gives added perspective and focus to problems of collecting and reporting law enforcement statistics and provides a foundation for a national police statistics project. The state of the art report also formulates recommendations and sets priorities for the types of statistics that should be collected and reported for the purposes of management control, planning, and research.

The report addresses basic questions relevant to police statistics. These questions include: What data have been collected in the past? What statistics are available now? How useful are these data to the police, researchers, and policymakers? What is the quality, reliability, and comparability of these statistics?

This study is divided into eight sections. In Section I, definitions are presented to give the reader a foundation in and understanding of law enforcement statistics. The BJS has divided law enforcement statistics into three major groups at the local, state, and

national levels of aggregation: input data (calls for service and crimes reported); process data (number of agencies, functions, personnel, expenditures, etc.); and output data (arrests, clearances, convictions, citizen attitudes, and use of deadly force). These groups of data are identified and clarified in Section I.

Section II examines the historical development of the collection of law enforcement statistics. This section looks at both crime and administrative statistics since the mid-nineteenth century and reports on the attempts at standardization of these data. This section also examines the national level data collection efforts conducted by the International City Manager's Association (ICMA), the International Association of Chiefs of Police (IACP), Fraternal Order of Police (FOP), Kansas City Police Department, Police Foundation, and Police Executive Research Forum (PERF).

Sections III, IV, and V discuss in detail the input, process, and output data. These sections look more closely at collection efforts and the subsequent research studies that made use of these data. Section VI summarizes the input, process, and output sections. It focuses upon the similarities and differences of the studies and discusses the problems with them.

Section VII reports the results of two users' surveys. The first survey, conducted by the Police Executive Research Forum (PERF), questioned 152 large police departments about the utility, availability, and sources of statistics to those agencies. The second survey, conducted by the Institute of Criminal Justice and Criminology at the University of Maryland, involved telephone interviews of researchers and policymakers concerning their particular uses of law enforcement

statistics.

Finally, in Section VIII conclusions and recommendations are presented for the collection of a national series on law enforcement statistics.

## I. DEFINITIONS

To understand the area of law enforcement statistics, some common definitions and parameters are necessary. This section defines the terms that will be used throughout this report.

A Bureau of Justice Statistics white paper laid the foundation for this state of the art report by elucidating preliminary definitions of law enforcement and three types of data--input, process, and output. The Dictionary of Criminal Justice Data Terminology also provided some insight as to the definition of a law enforcement agency. The Dictionary defines law enforcement agency as "a federal, state, or local criminal justice agency or identifiable subunit of which the principal functions are the prevention, detection, and investigation of crime, and the apprehension of alleged offenders" (p.125). The BJS white paper also includes this terminology, but is more specific in that it addresses five parameters for the definition of law enforcement and applies them to statistics gathering.

First, the agency must be designated by law to have the powers of arrest. Second, the agency must have sufficient resources to warrant direct reporting to a central statistical agency at the state, regional, or federal level. In those instances where such conditions do not exist, a larger entity should provide the reporting for that area. In particular, in rural areas where there may be one-person agencies the aggregation should be at the county level. Third, a reporting agency should have a clearly defined jurisdictional boundary in which it operates and the aggregation of data should be at an appropriate level. Campus police, state police, and federal agencies should be included in

the definition of a law enforcement agency in the development of this series. Fourth, private police agencies are not to be included. Fifth, jail related activities of law enforcement agencies are to be included in other BJS statistical programs. While these general characteristics will be easy to apply in a large percentage of the agencies, especially those that generate the bulk of statistical information on law enforcement, the application of these criteria to small agencies could present some problems.

Considerable attention has been given to the issue of the kinds of data to be collected at a national level on law enforcement agencies. In general, three major types of data currently exist that need to be gathered or organized. First, input data must be collected; that is, information describing the demands for service that are placed upon law enforcement agencies. Currently, such information for crime-related demands for service are collected by the Uniform Crime Reports. However, there are estimates that up to 85% of the services requested of law enforcement agencies are non-crime related. Therefore, the effort to characterize inputs should be expanded beyond crime data to capture more accurately the wider range of services demanded from law enforcement agencies. While such input measures or measures of demand for service will expand our understanding of the role of law enforcement agencies in society, it is recognized that many of the activities of law enforcement agencies will not be captured by a series that focuses on calls for services (e.g., police initiated activities such as crime prevention, public education and relations, etc.)

The second type of data involves process data--the characteristics and processes of law enforcement agencies. Currently, Uniform Crime

Report data and other series collected occasionally at a national level provide some information on these characteristics. The following enumerates some of the data that describe the function of law enforcement agencies:

1. Size of departments.

2. Functions/Duties/Resource Allocations

a. Patrol

b. Investigations

c. Support

d. Other functions

3. Personnel

a. Sworn officers v. civilians

b. Minimum educational requirements for officers

c. Training requirements, in-service training

d. Psychological testing, drug testing

e. Demographic characteristics

f. Length of service, retirement standards, disability pay

g. Promotion practices

4. Expenditures

a. Salary ranges

b. Operating expenses

c. Capital expenditures, including police equipment

d. Police overtime

e. Training costs

f. Dispatch costs

g. Investigations costs

h. Trial appearance costs

5. Information Systems and Data Processing

a. Type of hardware

1. Shared v. dedicated

b. LEIS

1. POSSE, CASS, FMIS, IMIS, etc.

6. Number of beats

a. Foot patrol, car patrol (1 & 2 man cars)

b. K-9 patrols

7. Unions

a. Number of unions, number of members

8. Special equipment  
(helicopters, riot control, etc.)

9. Information on the socio-economic context in which the department operates

Finally, data concerning the performance of law enforcement agencies are included in the definition of law enforcement statistics. In particular, data that cover arrests made by police for crimes known to them and the outcomes of those arrests are placed in this category. In addition, other information on police outputs such as the number of deadly force incidents (firearm discharges, actual "hits", etc.), public attitudes toward the police, police attitudes toward the public, offenders, and courts, and number of civil suits against a department are included here. And lastly, consideration should be given to ways in which national data might be collected to assess the performance of law enforcement agencies with respect to the non-crime related services they provide, e.g., victim/witness programs, community service programs, and auxiliary service (ambulance, cross guards, etc.).

## II. LAW ENFORCEMENT STATISTICS: AN HISTORICAL OVERVIEW

This section examines the history of the collection of law enforcement statistics. The accumulation of these data began at the local level through annual reports in the nineteenth century, developed into a national series as part of the Uniform Crime Reports in the 1930s, and eventually was conducted by a number of organizations which sought more information on police administrative practices than that which was available through the UCR. The history of the collection of these data is tied directly to the development of urban police departments in the United States. This chapter traces the growth of police statistics by examining the police from the 1850s to the present.

Most urban police departments were formed in the mid- to late-nineteenth century as a result of the growing concern over crime, disorder, and the influx of immigrants into the cities (see Richardson, 1970; Lane, 1967; Miller, 1977; Johnson, 1979; Levett, 1975; and Monkkonen, 1981). To measure the performance of these uniformed police, city councils and police administrators urged the collection of crime statistics (primarily arrests for various crimes) for inclusion into annual reports.<sup>1</sup> Collection of statistics related to operations and administration, however, was minimal, confined primarily to personnel and expenditures. Input, process and output data as identified by the Bureau of Justice Statistics were not emphasized (nor deemed necessary) during the nineteenth century. The concern of police departments and

<sup>1</sup>Crime statistics were collected as early as 1829 in the New York judicial system (Robinson, 1934:128). The police assumed that function in 1845. Other police agencies began collecting crime statistics in the latter half of the nineteenth century.

the public was generally directed toward crime and disorder rather than management of internal police affairs.

Toward the end of the nineteenth century problems in policing, particularly with corruption and inefficiency, began to surface (Fogelson, 1977). Urban reformers began to challenge the political machines that controlled city governments and police departments. In their efforts to bring changes into policing the reformers stressed managerial efficiency and professionalism, catchwords that heralded the development of the International Association of Chiefs of Police (IACP) in 1894, and the collection of law enforcement and crime statistics by independent municipal groups in the early 1900s (Walker, 1977).

To combat the problems of corruption and ineffectual police service, municipal reformers pressed for investigations of urban police departments throughout the country. A favorite mechanism for investigations was a state commission such as the Lexow Committee in New York. Another form was the independent research group, most notably, the Bureau of Municipal Research in New York City. As a part of the investigations, statistics on police administration and operations were gathered. The Bureau of Municipal Research was particularly concerned with the collection of such data. First organized in 1906, the bureau conducted research for New York City, and eventually evolved into a consulting firm with a national outlook. The Bureau used a "nonpartisan" and "scientific" approach to its research, a style that epitomized the Progressive Era in American history. The directors of the Bureau of Municipal Research defined their role as "applying the test of fact to the analysis of municipal problems and the applicability of scientific method to governmental procedures" (Dahlberg, 1966:20-21).

In terms of the police, the Bureau conducted extensive surveys of a number of departments throughout the country. Between 1913 and 1924 the Bureau examined police departments in at least 17 major cities including Rochester, Richmond, New Orleans, Denver, Milwaukee, San Francisco, and New York. These surveys included data relating to personnel, wages and salaries, deployment of officers (day and night patrol), types of hardware, location of stationhouses, training, supervision of officers, recordkeeping, jail management, and crime statistics. The bureau went beyond mere collection of data and made recommendations to the departments regarding administrative practices.

According to Walker (1977:60-61), the experts at the Bureau found essentially the same conditions in almost every city they examined. Usually the Bureau reported that the departments were a part of the political system, meaning that they were controlled by partisan affiliations which affected appointments, policies, progress, and efficiency. Thus, the Bureau of Municipal Research advanced the theme of police reform: eliminate partisan politics, guarantee job security of tenure to the chief, and use modern business management techniques.

The Bureau usually suggested that departments overhaul themselves completely. Rules and regulations needed updating, patrol officers required more supervision, training academies needed to be implemented, and the police station itself required renovations. While reforms were not readily made within the departments as a result of the Bureau's work, these reports established the model for the police survey that became a standard item in police administration by the 1920s and 1930s.

As police systems in general began to move toward professionalism, police administrators like August Vollmer and organizations like the

International Association of Chiefs of Police (IACP) urged departments to maintain records related to crime and operations. While police departments had collected data for their annual reports, few attempts were made to standardize those reports across police agencies and even fewer attempts were made to collect those data in an annual national series. While the IACP discussed criminal records and statistics at its annual meetings as early as 1895, it was not until 1922 that it endorsed a system of crime records for police departments (Mead, 1929).

By 1927 the organization of police chiefs appointed a committee to formulate a complete standard system of police statistics. This Committee on Uniform Crime Records outlined a system of record forms and forms on which local police could furnish data for state-wide and nation-wide compilation. The committee also recommended a standard annual report (Mead, 1929 and Timmerman, 1929). Among the committee's recommendations for collection of data were specific crime-related classes (crimes known to police, arrests and clearance rates), as well as those statistics linked with operations and administration. The Committee on Uniform Crime Records suggested that police show the numbers of the force classified by grade, the distribution of each grade among districts or precincts, special bureaus or other administrative units; and the salary range of each grade<sup>2</sup> (Mead, 1929).

By 1933 August Vollmer could report in the Journal of Criminal Law

<sup>2</sup>Mead also mentions that "nation-wide statistics of city police personnel, classified by grade were formerly included in the annual reports on statistics of city governments, published by the Federal Bureau of the Census. These statistics were published annually from 1903 to 1907, but were eliminated, together with other non-financial data, when the scope of the report was narrowed to cover only financial statistics" (Mead, 1929:81).

and Criminology that "a complete and detailed system of records has been instituted ..." (Vollmer, 1933:161). Furthermore, he said, "These achievements are monumental, and it is assured that in the future police departments will furnish accurate information to a central agency, if not of their own volition, then through compulsion by legislative enactment" (1933:167).

#### ADMINISTRATIVE SURVEYS

With the development of the Uniform Crime Reports in the 1930s, the police and the FBI placed emphasis on the collection of crime statistics rather than law enforcement data. Though the UCR accumulated statistics on administrative and operational matters (mostly personnel-related), the primary focus was (and is) crime. Only a few attempts have been made to collect law enforcement data over the years, and these have been limited to survey questionnaires.

The first collection of operational and administrative data on a nation-wide level occurred in 1929 under the auspices of the Bureau of Municipal Research (Beyer and Toerring, 1929). The bureau surveyed 78 municipal police departments and all nine state police forces. Of the 78 city police, 36 were from the larger departments, with populations ranging from 114,000 to 5,900,000; while the remaining 42 departments were from smaller cities, ranging in population from 30,000 to 105,000 (see Appendix A for a listing of departments). The state police departments were Connecticut, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, Rhode Island, Texas, and West Virginia.

The Bureau of Municipal Research sought and received information concerning wages and salaries of police, clothing reimbursement, room and board, sick-leave, vacation leave, pension funds, and stability of employment. Some of the findings of the bureau reflected the progress police had made since the corruption-filled years of the nineteenth century. Police work was increasingly recognized as a permanent career and most departments had begun to offer a wide range of fringe benefits. The survey revealed, for example, that it was "a fairly general practice to allow sick-leave with pay," that 57 of the 78 cities surveyed provided two weeks vacation with pay, and that all but seven of 78 cities maintained some form of pension plan. Employment in police work had stabilized significantly. The personnel turnover in the 78 cities averaged 4.17 percent a year (Beyer and Toerring, 1929:143-144). The Bureau's study concluded that differences existed between the municipal and state police agencies, primarily due to the fact that the state police lagged behind the city departments in benefits for their officers. But the Bureau was confident that with time the state police would have more provisions for the welfare of the individual officer.

In the decade of the 1930s the emphasis on statistics governing administrative practices gave way to crime statistics. As mentioned, the Uniform Crime Reports were concerned primarily with arrest data and as such collected only a few statistics on operations. However, a national series on law enforcement statistics data began in a limited fashion under the auspices of the International City Manager's (later Management) Association (ICMA) in 1939.

As part of its annual Municipal Yearbook series, the ICMA collected data on cities throughout the country. Initiated in 1934, the

Municipal Yearbook reported on most facets of city management -- from financial planning to the form of government. In its first year of publication (1934) the ICMA enlisted August Vollmer to write a report on the state of law enforcement. Vollmer's essay was similar to his article in the Journal of Criminal Law and Criminology in that both applauded the achievements of the police in the twentieth century. In the following nine years (1935-1943) the Yearbook published reports from Vollmer's chief disciple, O. W. Wilson, police chief of Wichita, Kansas. In conjunction with Wilson's appraisals of developments in police administration, in 1939 the ICMA began reporting statistics from police departments throughout the country. In that year, the Municipal Yearbook relied exclusively on the Uniform Crime Reports for its data, but by 1942 had begun administering a questionnaire of its own to all police departments in cities over 10,000 in population. In 1944 the Yearbook received information on the police from 1,060 cities. Statistics on police personnel, salaries, expenditures, retirement systems, method of appointing the chief, numbers of motor vehicles and radio facilities, and crime rates were collected and reported. By 1983 the Yearbook presented data from 6,943 jurisdictions, but had limited its variable list to personnel, salaries, and expenditures (see Section IV, Process Data, for a more detailed view).

In 1951 two more national level data collection efforts were undertaken. The Fraternal Order of Police (FOP) and the Kansas City, Missouri Police Department each sent questionnaires to police agencies requesting information regarding their administrative practices. Each organization published its data on an annual basis.

The publication of the Fraternal Order of Police emerged as a

result of interest in salaries and wages of police throughout the country. The National Lodge of the FOP was (and is) concerned with issues that directly affected the lives of individual police officers of all ranks. The National Lodge was an outgrowth of the local fraternal orders of police that were established in Philadelphia, Cincinnati, Cleveland, Detroit and other mid-Atlantic and mid-Western states in the period which roughly covered 1910 through the 1920s (Fogelson, 1977:196). In the period from 1920 to 1950 when unions were virtually unknown, unwanted or not allowed by police administrators, the FOPs provided insurance against sickness and death, sponsored picnics and parties, and otherwise looked out for the health and well-being of its members (Fogelson, 1977:197). As the demands for unions increased in the 1940s and 1950s the FOPs began to carry the rank-and-file's demands to the authorities and indirectly to the voters. The FOP's Survey of Salaries and Working Conditions grew out of this milieu.

From 1951 to the present the FOP has collected data through its state and subordinate lodges. In 1983 the organization received information from 1,065 departments and classified them according to population size. All of the data can be categorized as "process data", dealing primarily with salary information and fringe benefit packages.

The Kansas City, Missouri Police Department began its national level data collection in the same year as the FOP. For the next 22 years the department published the General Administrative Survey of Police Practices. The Kansas City survey, unlike the FOP's, was limited to the larger departments in the country -- those that serviced cities with a population of 300,000 to 1,000,000. In 1973, its last year of publication under the sole auspices of the KCPD, the General

Administrative Survey reported statistics from 40 large departments. Like the FOP questionnaire, the Kansas City survey requested information on process data -- salaries, wages, fringe benefits, etc. Unlike the FOP study, the KCPD asked a broader array of questions, requesting statistics on computer facilities, uniforms, sidearms, and vehicles. By 1973, budgetary considerations forced the department to cease publication. But the department continued to receive requests for the survey. As a result, department administrators decided in 1976 to conduct a scaled-down version of the survey, but no definite plans were made to continue this modified version on a permanent basis.

In early 1977 the Police Foundation approached the Kansas City police with the idea of a joint endeavor. The Foundation agreed to compensate the department for its costs in fielding the survey and tabulating the data. The Foundation took responsibility for analyzing and publishing the data. The scope of the survey was extended to include all departments serving cities with more than 250,000 people. Survey questionnaires were sent to 56 police departments. Fifty of these departments elected to participate. The Foundation made some changes in the survey's content, asking for more information on promotional policies, hours worked per shift, deployment of personnel, review board procedures, and distribution of personnel by unit. Another change in the Police Foundation version was the addition of an analysis section to "provide the reader with a frame of reference for interpreting individual statistics" (Heaphy, 1978). Data in the analysis section generally showed the range and median values of the responses of all participating agencies. Separate ranges and median values for various geographical regions and for various city population

categories were also provided.

In November 1977 the Police Executive Research Forum (PERF) sent the Kansas City/Police Foundation survey to its members (47 large police departments) and published the Survey of Police Operational and Administrative Practices -- 1977. The Forum's survey included departments that served populations of 100,000 or more and that were members of the association. So there was some overlap between the Kansas City/Police Foundation survey and the Forum's.

In 1981 the Police Foundation and PERF joined forces and published the Survey of Police Operational and Administrative Practices -- 1981. All departments serving a population of 100,000 or more and all PERF members were surveyed. A total of 155 questionnaires were sent out, with 122 departments responding with completed instruments. This joint endeavor revised the questionnaire of 1977. Questions were clarified based on comments of police executives. More information was requested especially in the areas of calls for service (input data) and in firearm discharges (output data). Unlike the previous reports, the 1981 publication did not attempt to analyze the data. It simply presented the raw data and summary tables.

The International Association of Chiefs of Police (IACP) worked with the Police Foundation and Educational Testing Service to collect data on police personnel practices in state and local governments. Terry Eisenberg, Deborah Ann Kent, and Charles R. Wall of the IACP published the results of their collaborative effort in 1973. Their survey sample included all state, county and municipal police agencies having fifty or more sworn police personnel. A total of 668 jurisdictions including 47 state agencies, 140 county departments, and

481 municipal agencies were sent questionnaires. Of the 668 jurisdictions, 493 agencies (74 percent) returned the survey instrument. The questionnaire form consisted of 50 questions, with a number of sections and sub-sections for each. These questions were organized into 13 categories: identification, number of employees, civil service/merit system, responsibilities of police personnel, recruitment, selection requirements, lateral entry, promotion, performance appraisal, appeals and grievances, organization and management, female personnel, and minority personnel. The data were analyzed in the aggregate, by the type of agency and by the size of the municipal agency. These topics will be covered in more detail in the section on process data.

The most recent collection effort involved Mark A. Cunniff, Executive Director of the National Association of Criminal Justice Planners, and the Bureau of Justice Statistics (Cunniff, 1983). Fifty-three agencies participated in the survey, the largest department serving a population of 945,141 and the smallest agency serving a population of 2,978. Unlike the other national level series where the data were presented in tabular form with little analysis, Cunniff's work involves a description and presentation of the data. In putting forth the data in tables, the participating agencies remained anonymous. The description of the statistics was limited to four areas -- calls for service (citizen initiated calls, screening policy, calls handled by phone and calls handled by dispatch), agency reports (i.e. traffic tickets, traffic accidents, crime incidents, and arrests), investigations (i.e. the role of patrol, case screening and case disposition), and resources (i.e. budgets, staffing, recruits, and training). Cunniff selected these areas for discussion because they

represented the best aspects of the data. The limited scope and depth of the data precluded an extensive analysis. Cunniff emphasized the problems inherent in gathering and analyzing such data: Administrative discretion creates variation in law enforcement practices, consequently producing a non-standardized input-process-output procedure and lessened validity and reliability of statistics.

#### THE POLICE SERVICES STUDIES

The most extensive data collection on administrative statistics occurred ten years ago under the direction of Elinor Ostrom and her colleagues at the Workshop in Political Theory and Policy Analysis at Indiana University. Ostrom et al. collected data on police services through a grant from the National Science Foundation. The police services study was one of four projects that examined the organization of service delivery in metropolitan areas. (The other three involved fire protection, public health and solid waste). All four projects chose the Standard Metropolitan Statistical Area (SMSA) as the unit of analysis. The sampling frame from which 80 SMSAs were selected for the police services project included all SMSAs (200) that were wholly contained inside one state and contained a population of less than 1.5 million people. The researchers wished to focus on the less studied areas of the country and to determine the impact of state laws and policies on metropolitan policing. The original research design of the police services project included five major clusters of variables: 1) service conditions, 2) the legal structure, 3) organizational arrangements, 4) manpower levels, and 5) expenditure levels. Patrol, traffic control, criminal investigations, radio communications, adult

pre-trial detention, entry level training, and crime laboratory analysis were the specific services that concerned the researchers.

The analysis conducted by Ostrom et al. (1978) was based upon the concepts of service producers and consumers. The producers were the police agencies with functions and duties that may have overlapped with other jurisdictions. Within the 80 SMSAs, information was collected from 1,761 producers. The areas served were mutually exclusive geographical divisions of each SMSA. The total number of consuming units was 1,885.

To collect the data, the researchers used a mixed strategy. Information was obtained from state records, from the county sheriffs' offices and larger police agencies in each metropolitan area, and from individual producers themselves. The researchers conducted in-person interviews as well as mail and telephone interviews.

A second phase of funding was initiated in 1977 to examine police behavior across a wide range of police departments that varied in terms of certain organizational properties, primarily organizational size. In Phase II, three metropolitan areas were studied in detail. Rochester, New York; St. Louis, Missouri; and Tampa-St. Petersburg, Florida provided regional diversification and the opportunity to select specific police departments of various sizes within each metropolitan area.

Data from these three areas were not confined to administrative statistics. Observational data on various aspects of police-suspect encounters; data on characteristics of the neighborhoods in which the encounters occurred; data on organizational characteristics of the police agencies; and data from interviews with samples of police officers were collected.

With these data, Ostrom and her colleagues described the services of metropolitan police departments. At least 18 technical reports were published through the Workshop in Political Theory and in 1978 Patterns of Metropolitan Policing appeared in book form. A number of journal articles have also been published in recent years that specifically use the data from Phase II (see e.g., McIver and Parks, 1983; Mastrofski, 1981a, 1981b, and 1983). Two recent dissertations have used data from Phases I and II. Douglas A. Smith, assistant professor at the Institute of Criminal Justice and Criminology, University of Maryland relied on data from Phase II data for his thesis on decisions to arrest (1982). Robert Langworthy, assistant professor of Criminal Justice at the University of Alabama Birmingham used data from Phase I and the Kansas City General Administrative Survey to study the structure of police organizations (1983).

#### CONCLUSION

This section examined the roots of law enforcement statistics and showed the development of those data over time. One of the striking features of this historical examination is the sporadic and inconsistent nature of the collection of law enforcement statistics. Two national series currently exist, both of which are limited in scope. The Fraternal Order of Police concerns itself with salaries and working conditions, while the ICMA confines its collection to data aimed at city managers whose concerns are primarily financial. The extensive surveys developed by the Kansas City Police, Police Foundation, Police Executive Research Forum, Ostrom et al., the National Association of Criminal Justice Planners, and the IACP provide a variety of methods and data

that require further investigation. In subsequent sections we look more directly at the types of data gathered and analyzed.

### III. INPUT DATA

This section examines input data -- statistics that describe the demands for service on police agencies. Of particular concern in this area is the call for service to a police department. For this state of the art report we look first at two important studies on calls for service-- The Kansas City Police Department's Response Time Analysis (1977) and the Police Executive Research Forum's Calling the Police (1981). Second, we investigate the types of data collected on calls for service. Specifically, we examine statistics reported by Mark Cunniff in his BJS funded study (1983) and by the Police Foundation and the Police Executive Research Forum in their collaborative effort Survey of Police Operational and Administrative Practices (1981).

#### KANSAS CITY RESPONSE TIME ANALYSIS STUDY

The Kansas City Response Time Analysis Study was undertaken in an effort to evaluate the effect of rapid police response on arrest, on the availability of witnesses, on citizen satisfaction with response time, and on the severity and frequency of injuries incurred by citizens. It also sought to assess the effect of citizen delay in reporting crime on police response time. Prior to this study, the police assumed that increases in the rapidity of police response to citizen calls would result in a higher arrest rate, more witnesses, fewer injuries to citizens, and greater citizen satisfaction with regard to police service. Little consideration was given to delays by citizens in reporting crimes and the resulting effects on police response time.

#### METHODOLOGY

The Kansas City Police Department studied 56 beat-watches (8 hour tours of duty in geographically defined areas) within its jurisdiction. The areas selected had high rates of Part I crimes, specifically robberies and aggravated assaults. The researchers thought that areas with high rates of violent Part I crimes would yield high rates of non-violent Part I crimes, thereby providing adequate numbers for study.

Data collection consisted of three components. Observers gathered "travel time" data by riding with field officers. "Dispatch time" data were collected by analysts from tape recordings issued from the Communications Unit. Interviewers amassed "citizen reporting time" data from victims and others who had made reports to the police. Combining these data provided the total response time for any call, starting from the initial call and ending with the conclusion of the officer's investigation. In addition, social characteristics of the victims, witnesses and other callers were taken by the interviewers to determine the effects of such variables as race, sex, length of residency, etc. on response time and on citizen satisfaction with that response.

#### FINDINGS

The researchers found that a large proportion of Part I Crimes (62.3%) were "discovery crimes"--those offenses discovered after the fact. As a result, rapid response time did little to enhance the chances of apprehending a suspect or locating witnesses. The remaining 37.7% of Part I Crimes were "involvement crimes"--crimes in which a victim or witness participated. The outcome of these incidents hinged

largely upon the time required for the citizen to report. An inverse relationship existed between on-the-scene arrest/witness availability and citizen reporting time: the longer it took for a citizen to report a crime, the less likely an arrest of a suspect or the location of witnesses.

The researchers also discovered that reporting delays could be categorized as decision making delays on the part of citizens or as resulting from other problems. In the case of the former, the lag in reporting time was attributable to several factors. Some citizens found it necessary to seek advice from others on how to proceed. Others lingered to observe the incident or investigate the scene. Uncertainty existed as to whether the situation warranted police intervention. Delays resulted from chasing the suspect. In some instances, security personnel were contacted first. Apathy--primarily the belief that the police are incapable of doing anything anyway--also caused reporting delays. Other problems included difficulties in telephoning (unknown police or emergency number, broken phone), fear of reprisals, injury, and difficulties in communicating with police complaint takers.

#### IMPLICATIONS

For the researchers with the Kansas City Police Department, the unanticipated effects of citizen reporting delay on police response time suggested interesting implications for police policy. Efforts to hasten police response time through allocation and redeployment of human resources and through the introduction of technological innovations were deemed questionable since the research determined that the primary delay was citizen based. Instead, the researchers recommended that improved

methods of discrimination between emergency and non-emergency situations would lead to a more productive use of police personnel and improved outcomes. Response by non-dispatched officers to robbery scenes was ineffective in achieving a response-related arrest. Finally, the researchers recommended that more research was required to explain reporting delays and develop methods to overcome them.

The data for the Kansas City Response Time Analysis are available through the Criminal Justice Archive and Information Network of the Inter-University Consortium for Political and Social Research (ICPSR). The data are stored in 46 files with information on crime and non-crime related calls, interviews with police, victims, and witnesses, and observational data.

#### CALLING THE POLICE

The second major study on calls for service was conducted by William Spelman and Dale K. Brown of the Police Executive Research Forum (PERF). They replicated the Kansas City Police Department Study, focusing on citizen reporting of crime. They, too, found that the speed of police response is only one variable to be considered when researching response time.

#### METHODOLOGY

Four cities were involved in the study: Jacksonville, Florida; Peoria, Illinois; Rochester, New York; and San Diego, California. Data were collected on incidents involving the Part I offenses of burglary, robbery, aggravated assault, motor vehicle theft and theft. Rape was included in all cities except San Diego. As in the Kansas City Study,

the sample of crimes drawn from each of the cities was divided into two categories: discovery crimes and involvement crimes. Involvement crimes and crimes resulting in on-the-scene arrests were subject to oversampling in order to ensure that a sufficient number of such incidents was available for analysis.

Data for the study were collected from the following sources:

1. police incident reports;
2. arrest reports;
3. telephone communication tapes;
4. dispatch cards and printouts; and
5. interviews with those involved in the incidents.

Interviews were conducted both by telephone and in person with victims, witnesses and bystanders who notified the police of the incident. These individuals were contacted as soon after the incident as possible. A questionnaire drawn from the type used in Kansas City was used to structure the interview.

#### FINDINGS

Spelman and Brown found that, as in Kansas City, response related arrests were low. This was due to the fact that 75% of serious crimes were discovery crimes in which a quick response made little difference. Therefore, in only 25% of serious crimes (involvement crimes) could quick response time make a difference in arrests. The key to these on-the-scene arrests appeared to be the speed, or lack thereof, on the part of the citizen to report crime. The longer the delay, the greater the opportunity for the suspect to escape. A crime reported while in

progress had a 35% chance of response-related arrest. A report made within one minute after the incident occurred added an additional 18% chance for an arrest. By contrast, crimes reported between one and five minutes after the crime resulted in a 7% chance of arrest. This meant a substantial reduction in apprehension capacity.

Three basic reasons were given for citizen delay. First, the citizen hesitated in calling the police because of a need to resolve ambiguity in the situation, that is, to ascertain if a crime actually had been committed. Citizens observed the scene, investigated the situation, and then spoke with others in order to gain more information. Second, citizens left the scene or spoke with someone in order to gain support. They pursued the suspect and, in some instances, sustained or cared for injuries. Third, citizens encountered personal conflicts over the decision to call the police. They questioned whether the situation warranted such a call. On the other hand, when citizens decided to report, additional reasons for delay arose. Telephones were not available or the police number was not known. The caller also may have encountered difficulty relating the information to the police complaint taker.

#### IMPLICATIONS

The Spelman and Brown study suggested several courses of action for the police that would reduce the delay in citizen reporting of crime. The first recommendation involved reducing the conflict experienced by the public in deciding to call the police. The emotional and financial costs of reporting were symptoms that needed to be addressed by the police. Spelman and Brown suggested that the police

educate victims and witnesses in crime prevention techniques and to place emphasis on the benefits resulting from these practices. Because the citizen fears reprisals from the offender, the police should provide protection and reassurance to that individual. Spelman and Brown also recommended that the police emergency number be widely distributed and publicized. Where access to that number is not possible, the police should encourage citizens to dial telephone operators when an emergency occurs in order to avoid the delay of searching through phone directories. In addition, the authors suggested that police operators be trained to screen calls for service in an effort to reduce communications problems with reporting citizens and to prioritize calls according to the seriousness of the crime and the urgency of the police response.

Another course of action suggested by the Police Executive Research Forum involved the implementation of community-based neighborhood anti-crime programs. Spelman and Brown saw these programs as methods to increase the level of understanding of what a crime looks like and where it is most likely to occur. Such efforts would reduce the delay in reporting and increase response-related arrests.

#### BEYOND CRIME: LAW ENFORCEMENT OPERATIONAL AND COST DATA

Mark Cunniff's study, Beyond Crime: Law Enforcement Operational and Cost Data, devoted one section to calls for service. The number of calls, the percent of citizen initiated calls, screening policy, the percent of calls handled by phone, and the percent of calls resulting in dispatch were the variables that he considered. Several characteristics of dispatches were also examined in some detail, particularly

TABLE 1\*

## SELECTED CHARACTERISTICS OF DISPATCHES

JURISDICTION	TOTAL DISPATCHES	NUMBER OF DISPATCHES PER 1000 POPULATION	PROPORTION OF DISPATCHES INVOLVING MORE THAN ONE CAR CALLS	RESPONSE TIME FOR PRIORITY CALLS				PRESENCE OF 911/CAD
				IN INVOLVING PRIORITY CALLS	RESPONSE TIME	TOTAL TIME AT SCENE	POPULATION PER SQ MILE	
A	9897	1164	0.37	0.15	1.10	N.A.	N.A.	3696
B	2228	748	0.25	0.16	1.66	15.00	16.66	5956 911
C					2.00	10.00	12.00	3100 911
D					3.25	N.A.	N.A.	1741 911
E	15020	626	0.05	0.01	4.50	18.00	22.50	5455 911
F	53178	1251	0.40	0.17	2.17	15.00	17.17	3469 911
G	10600	982	0.50	0.07	3.17	20.00	23.17	407
H	3456	524	0.20	0.13	3.00	10.00	13.00	1100
I	9500	792	0.60	0.08	5.50	15.00	20.50	1176
J	7361	387		0.04	2.60	12.00	14.60	173 911
K	11284	882	0.20	0.04	2.30	59.20	61.50	4000 911
L	4150	1012	0.40	0.56	1.33	9.50	10.83	1519 CAD
M	8012	433	0.23	0.44	2.83	19.50	22.33	1177
N	3068	590	0.30	0.12	2.20	30.00	31.20	578 911
O	20330	535	0.41	0.02	4.05	23.26	27.31	5846 911
P	14789	870	0.05	0.03	2.18	35.00	37.18	3778 911
Q	17883	477	0.10	0.11	3.25	12.00	15.25	4808 911
R	18972	1084	0.13	0.08	3.20	17.55	20.75	2073 CAD/911
S					3.50	45.00	48.50	
T	71798	1680	0.18	0.14	2.94	7.63	10.57	7123 911
U	2100	553	0.01		2.12	11.13	13.25	1357 911
V	17536	390	0.70	0.27	2.75	20.00	22.75	4091 CAD/911
W	9400	783	0.35	0.16	1.58	15.00	16.58	4000 CAD
X							(1)	
Y							(5)	911
Z	43395	668	0.25		8.00	20.00	28.00	3202
AA	4200	60	0.80		6.00	20.00	26.00	4545
AB	101256	1861	0.06		3.00	30.00	33.00	2037 CAD
AC	36403	628	0.10	0.01	2.00	12.00	14.00	12889 CAD/911
<b>AVERAGE FOR AGENCIES SER POP &lt;100000</b>			20667	790	0.29	0.14	3.01	20.07 23.14 3307
<hr/>								
AD	833077	1059	0.19	0.18	6.12	25.00	31.12	9148
AE	287170	432	0.50	0.17	7.00	22.00	29.00	1089 CAD/911
AF	59000	590	0.32		N.A.	N.A.	25.00	16129 CAD/911
AG	401500	807	0.23	0.30	7.45	23.45	30.90	4471 911
AH	53050	295	0.20	0.03	2.17	N.A.	N.A.	8182 CAD/911
AI	121621	315			10.74	13.64	24.38	1221
AJ	168298	565	0.09	0.29	6.00	24.00	30.00	4923
AK	400951	459	0.40	0.06	4.90	67.10	72.00	475 CAD/911
AL	323842	736	0.35		4.50	45.00	49.50	12828 CAD/911
AM							6641	
AN	206805	632	0.50	0.19	2.75	25.00	27.75	5938 CAD/911
AO	377116	662	0.46	0.33	7.05	27.05	34.10	2907 CAD
AP	250125	611	0.54		9.14	51.00	60.14	631 CAD
AQ	278382	1146	0.45		6.15	32.93	39.08	6637
AR	344863	761			5.00	N.A.	N.A.	7383 911
AS	229686	648	0.21		8.00	22.00	30.00	4119
AT	74407	722	0.61	0.10	6.33	10.10	16.43	12875 911
AU								
AV	(11763)	(24)	0.29	0.31	6.00	12.50	18.50	(1412)
AW	(19611)	(72)	0.30	0.08	8.32	34.17	62.49	(525)
AX	252637	533						1065
AY								
AZ	67706	356	0.16	0.34	5.00	35.00	40.00	8636 CAD
AA	172392	445	0.42	0.14	5.00	16.18	21.18	50 CAD
<b>AVERAGE FOR AGENCIES SER POP &gt;100000</b>			258033	620	0.35	0.19	6.19	28.12 35.64 5767
<hr/>								
AVERAGE FOR ALL AGENCIES	125550	715	0.31	0.16	4.32	23.44	28.38	4354

\*Reprinted from Table 3 of M. Cunniff, *Beyond Crime: Law Enforcement Operational and Cost Data, 1983* (Washington: Bureau of Justice Statistics).

information on response time for priority calls and the presence of 911 emergency numbers.

The study found that 911 numbers elicited a faster response time. Those agencies with 911 capabilities required nearly one minute less than those agencies without such capabilities in taking information from the caller and relaying it to the dispatcher (Table 1). This, in turn, led to a faster arrival of an officer at the scene of the incident. Agencies serving populations of less than 100,000 which had 911 systems evidenced a higher number of service calls per 1,000 persons than those without systems. Agencies serving populations of 100,000 or more which have 911 systems averaged fewer calls for service than those without these systems. Thus, there appeared to be a positive relationship between the emergency system and dispatches only as long as population parameters remain under 100,000.

## THE SURVEY OF POLICE OPERATIONS AND ADMINISTRATIVE PRACTICES

The Police Foundation and Police Executive Research Forum's 1981 survey of police agencies collected information on calls for service. The data were presented in tabular form in the joint publication, *The Survey of Police Operations and Administrative Practices -- 1981*. No analysis of these data was given, though some comments need to be made with regard to the statistics.

The Police Foundation/PERF survey asked the following questions regarding calls for service:

How many citizen calls did you receive by telephone last year (including information requests)?

Of those calls, how many were calls for service that were responded to by the dispatch of one or more police units?

How many were calls for service that were handled by some other

method than the dispatch of a unit (i.e., telephone report-taking, mail-in reports requiring citizens to come to a police station)?

How many were calls for information only?

If you use other categories of citizen calls not included in a, b and c above, please specify the categories and number of calls in each.

Put more simply, the survey asked for the total number of calls, the number of calls handled by a dispatched unit, the number of calls handled by other methods, the number of calls for information, and the number of calls not included in the three categories given.

The information provided by police departments in this section was incomplete at best. Usually, the department provided the total number of calls received, but could not distinguish among the calls. Information was unavailable or missing for the number of calls handled by methods other than dispatch, information calls, and "other" calls. More specifically, 40% of the departments in the survey indicated that the number of calls handled by methods other than dispatch were unavailable. The number of information calls were unavailable in 70% of the departments, and the number of calls categorized as "other" were unavailable in 73% of the agencies.

#### IV. PROCESS DATA

Process data -- the characteristics and processes of law enforcement agencies -- are discussed in this section. These types of data include personnel, expenditures, computer use, equipment, etc. In this part of the report we examine in closer detail the statistics gathered by the International City Management Association (ICMA), the Fraternal Order of Police (FOP), the Kansas City Police Department, the Police Foundation, the Police Executive Research Forum (PERF), the International Association of Chiefs of Police (IACP), and the data collected by Elinor Ostrom et al. in their efforts in 1974-1975. We also examine statistics collected by state agencies through Statistical Analysis Centers (SACs).

The data collected by the Fraternal Order of Police (1951 to the present), the Kansas City Police Department (1951-1973), and the International City Management Association (1934 to the present) are limited to administrative and operational data. The most recent publication of the FOP (1983), A Survey of 1983 Salaries and Working Conditions of the Police Departments in the United States, contains statistics for 1,065 police agencies. For each department, information on the salaries of police chief to patrolman, fringe benefits (including health, pension, disability, and survivor's benefit), education, and legal aid are presented. No attempt is made to analyze the data. The information is presented in raw form, with each department listed with its appropriate numbers alongside (see Table 2).

The Kansas City Police Department published its data in similar fashion. In 1973, its final year of publication, the department

TABLE 2\*

## SALARIES AND WORKING CONDITIONS

No. of Uniformed Police & Detectives	SALARIES												Hours Per Week	Overtime Compensation	Number of Paid Holidays Rate of Pay	Personal Days	Annual Vacation (Days - Min - Max)	Annual Sick Leave (days) Maximum Accumulation	Sick Leave Buyback	Shift Differential Evening/Night	Annual Clothing Allowance	Clothing Maintenance			
	CHIEF		CAPTAIN		LIEUTENANT		SERGEANT		DETECTIVE		PATROLMAN														
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX			
<b>POPULATION 50,000 to 100,000 (Continued)</b>																									
*Alameda, CA.....	92	47,588	52,524	40,368	44,378	35,652	39,252	31,548	34,800	—	—	24,720	28,596	3	40	Y	12½	—	10-25	10+200	30%	—	\$380		
Albany, GA.....	169	26,000	38,396	14,872	21,681	13,632	20,342	14,872	21,681	11,988	17,596	8	40	Y	7½	—	10-28	(180)	—	—	—	\$300			
Altoona, PA.....	89	27,286	—	24,806	—	22,551	—	20,501	—	15,000	19,323	4	40	Y	11½	4	15-20	21/180	—	—	5%	\$400			
*Arlington Heights, IL.....	63	33,929	35,615	32,290	33,929	30,755	32,290	27,898	29,291	—	—	20,824	26,570	5	40	Y	11½	X	12-20	12/120	—	—	X		
Arvada, CO.....	110	—	48,140	36,852	38,880	33,240	35,100	29,940	31,584	25,824	25,184	18,792	25,824	4	40	Y	10½	1	12-20	12/X	60d	—	FURN		
*Asheville, NC.....	133	—	—	20,332	25,974	17,550	22,438	15,964	20,332	15,184	18,480	11,908	18,480	6	40	Y	8½	X	12-15	15/UNL	X	\$500			
*Bayonne, NJ.....	181	38,500	—	27,400	—	25,119	—	22,900	—	14,528	20,362	14,228	20,062	5	40	Y	8½	VAR	5-20	—	—	\$450			
Bellevue, WA.....	111	63,369	65,705	35,052	38,649	29,052	31,152	—	—	24,000	27,360	19,752	27,360	3½	40	Y	11½	—	13-32	6m	—	—	\$315P		
Bellingham, WA.....	X	—	36,700	—	33,200	—	—	25,452	30,372	22,380	28,738	19,872	25,176	8	40	Y	11½	—	10-21	12/60	—	—	\$325P		
Berwyn, IL.....	68	35,610	—	28,800	—	26,350	—	25,407	—	24,780	25,125	18,430	24,241	10	40	Y	11½	—	7-32	12/38	—	—	\$300		
Binghamton, NY.....	X	—	32,722	—	26,909	—	24,540	—	23,042	—	—	14,352	20,768	X	40	Y	11½	3	12-20	12/X	X	VAR	\$370		
Bloomington, IN.....	58	25,110	27,360	18,750	21,000	18,250	20,500	17,300	20,200	Rank	Rank	18,200	18,850	10	37½	Y	13½	—	12-20	UNL	—	.20	\$850		
Bloomington, MN.....	90	—	51,500	38,268	37,900	32,268	33,878	29,285	30,816	—	—	22,164	29,285	15	40	Y	10½	—	10-25	12/-	—	—	\$325		
Boardman Twp., OH.....	35	27,068	—	22,347	—	—	—	20,622	—	—	16,230	18,605	4	40	Y	11½	—	10-30	120/NA	—	—	\$350			
Bossier City, LA.....	97	25,728	33,120	—	22,324	20,856	21,828	17,424	19,580	—	—	10,000	18,308	10	40	Y	6½	—	15-30	12/X	—	—	\$320		
*Bristol, CT.....	91	22,000	40,000	23,982	25,680	21,412	22,929	19,118	20,472	16,748	18,595	18,499	18,345	2	37½	Y	13½	X	10-20	5/150	35%	—	\$350		
*Brownsville, TX.....	X	32,884	—	21,008	—	19,427	—	17,932	—	—	13,168	17,180	4	40	Y	10½	1½	X	15	30/X	—	—	\$360		
Buena Park, CA.....	92	36,816	51,552	33,720	43,284	30,288	38,556	24,804	31,392	21,312	26,748	20,712	26,148	3½	40	Y	10½	X	10-20	12/X	50%	—	\$325		
Camden, NJ.....	282	—	33,384	—	26,221	—	23,789	—	21,683	18,433	22,753	18,768	21,088	5	40	Y	14½	—	15-25	18/X	50%	6%	\$600		
Canton, OH.....	191	26,307	34,971	19,828	27,765	17,833	24,918	16,013	22,582	—	—	16,000	20,000	2	40	Y	10½	1	7-42	7/365	100%	15/22	\$510		
*Casper, WY.....	86	34,668	42,132	31,668	—	29,160	—	27,324	—	24,758	—	18,480	24,758	5	40	Y	11½	5	16-20	18/UNL	45d	—	\$300		
*Charleston, WV.....	14	—	29,667	—	25,530	22,090	22,630	19,977	20,807	—	—	15,491	19,977	18	40	Y	13½	X	15-20	15/45	—	—	\$400		
*Cheyenne, WY.....	84	34,860	46,704	25,248	29,904	23,916	26,904	22,506	25,248	14,880	23,918	14,880	23,916	7	40	Y	12½	—	10-25	60d	50%	—	\$720P		
*Chicopee, MA.....	102	—	33,037	—	27,162	—	24,252	—	20,552	—	24,252	—	18,448	—	37½	Y	12½	3	10-28	15/X	\$1,750	—	\$300		
Chula Vista, CA.....	93	34,800	50,400	32,056	38,968	26,798	32,559	23,708	28,823	—	—	25,500	18,126	24,294	4½	40	Y	7½	4	10-20	90/UNL	25d	N	—	\$200
Cicero, IL.....	90	—	32,000	—	29,000	—	26,940	24,390	25,328	19,015	23,774	19,015	23,774	19	40	Y	10/X	—	14-35	45/-	—	—	—		
Clearwater, FL.....	185	—	48,440	26,835	31,046	25,603	29,580	22,575	27,497	16,399	20,921	15,618	19,925	5	40	Y	9½	3	10-20	15/-	50%	5½/7½	\$500		
Clifton, NJ.....	135	29,392	38,116	24,118	31,355	21,076	28,436	19,844	25,799	+350	18,001	23,399	5	38½	Y	8½	2	14-22	15/UNL	—	—	\$350			
Columbia, MO.....	90	18,009	55,638	25,260	29,174	17,089	26,907	16,717	25,309	—	—	13,807	21,760	VAR	40	Y	6½	3	10-20	18/UNL	—	.265/.265	\$720		
Cost																									

TABLE 2 (cont.)

Plan Identification	Maximum Days Coverage	HEALTH BENEFITS						PENSION						DISABILITY			SURVIVOR'S BENEFIT			EDUCATIONAL			LEGAL				
		Major Medical Maximum	Paid Basic Dental	Other Dental	Orthodontics Limit	Paid Vision	Paid Prescription	After 20 Years	After 25 Years	After 30 Years	After 35 Years	Minimum Age Minimum Years	Minimum Years For Vesting	Constituted Retirement Age	Service Related Maximum Years % of Salary	Non-Service Minimum Years % of Salary	Service Related	Non-Service	Social Security % of Write-On Against Pension	80 Credits	120 Credits	Master's Degree	Amount of Life Insurance Provided by Employer	Choice of Counsel	Limitation on Fee	Civil Service Status	Collective Bargaining
70% 100% 80%	30 365 120	\$1 MILL. 100% \$20,400	— 100% —	80% 100% —	— — —	— — —	80% 50% 50%	35% 50% 50%	43.75% 52.5% 61.25%	52.5% 50% 70%	61.25% 50% 75%	50/25 55/X 50/20	10 10 10	60 70 70	—/50% —/50% —/50%	—/50% 10/50% 10/50%	25% 50% 65%	— N N	— Y 8.5%	— \$200 X	\$90 \$450 X	\$90 10% X	\$15,000 \$15,000+ \$15,000	N N X	X Y X	Y Y Y	N N Y
90% 100% 100% 100% 100%	45 X 120 None X	\$250,000 Y \$1 MILL. None X	70% X 100% — 90%	50% X 100% — 80%	— X 40% 40%	— X 50% 50%	50% X 60% 50%	65% 31% 65% 60%	65% 31% 70%	65% 55% 60%	55/25 55/30 50/25	10 20 15	60 67 65	—/50% —/70% —/40% —/50% —/50%	—/50% X/31% 1/2 PENS. 50% 50%	50% 50% 1/2 PENS. 50% 50%	— X X X X	— X X X X	— X X X X	— X X X X	1½ SAL \$6,000 \$2,000 \$10,000 \$10,000	N N Y N N	Y Y Y Y Y	M M M Y Y	N N N N N		
100% Y UNL 75% 100% 100%	X X UNL UNL — — 25%	X Y N X — — —	X X — — — — 50%	— — — — — — 100%	— — — — — — —	— — — — — — —	50% 50% 50% 50% 50% 50% 100%	60% 60% 60% 60% 60% 60% 60%	60% 60% 60% 60% 60% 60% 70%	70% 70% 70% 70% 70% 70% 70%	50/20 41/20 50/20 50/20 50/20 50/20 50/20	10 20 20 20 20 20 20	60 65 65 65 65 65 65	—/65% —/55% 1/50% —/50%	10/50% —/55% 1/50% 5/66% 5/40%	50% 55% 25% — X	— — — — — — —	— — — — — — —	— — — — — — —	\$10,000 \$11,000 \$12,000 \$10,000	N Y N Y	N Y N Y Y	Y Y Y Y Y	Y Y Y Y Y			
100% 100% 100% 100% 100%	X X \$100,000 \$1 MILL. VAR	None 80% 50% X 80%	— — X X X	— — X X X	— — X X X	— — X X X	80% 40% 50% 50% 50%	3%y 40% 50% 50% 50%	3%y 40% 50% 50% 50%	3%y 40% 50% 50% 50%	3%y 40% 50% 50% 50%	50/20 43/25 35/15 50/55	12 10 20 5	— X X X	X/60% X X X	10/21% — — — 5/66% 5/40%	66% 50% — — X	\$200m \$15 \$30 \$60 \$10	N N Y Y	— — — — —	— — — — —	\$10,000+ \$8,000 \$7,500 \$2,000	N N Y N	X Y Y N	Y Y Y Y	N N N N	
100% 80% 100% 100% 50%	365 365 \$100,000 \$100,000 120	\$250,000 \$5,123 \$1 MILL. \$200,000 \$200,000	— 50% — — 90%	— — 50% — —	— — — — —	— — — — —	80% 80% 50% 50% 2.0%	30% 60% 65% 50% 2.5%	60% 62.5% 62.5% 62.5% 2.5%	67 1/4% 62.5% 62.5% 62.5% 2.5%	72% 41/20 70% 41/20 55/20	15 10 10 10 20	— — — — 65	—/72% —/52.5% —/50% —/52.5% X/72%	5/60% 30% 50% 50% —	16 1/4% 30% 50% 50% —	18 1/4% 30% 50% 50% —	N N N N N	— — — — —	— — — — —	\$10,000 \$10,000 \$10,000 \$2,000 \$2,000	N N Y N N	Y Y Y Y Y	Y Y Y Y Y	N N N N N		
100% 100% 100% 100% 100%	UNL 45 X 120 70	\$1 MILL. \$500,000 \$1 MILL. \$250,000 \$1 MILL.	— — — 50% 70%	— — — — —	— — — — —	— — — — —	50% 50% 50% 50% 50%	50% 60% 62.5% 62.5% 50%	50% 70% 75% 75% 50%	50% 50% 50% 50% 50%	50/15 50/20 50/20 50/25 X/70	5 10 10 15 15	65 65 65 65 65	—/50% —/75% —/66% —/50% 1/50%	5% 75% 50% 50% 100% \$1,099	25% 75% 50% 50% \$1,099	N N N N Y	— — — — —	— — — — —	\$3,000 \$5,000 \$1,200 \$10,000 \$4,780	Y Y N N N	Y Y Y Y Y	Y Y Y Y Y	N N N N N			
80% 75% 100% 100% 100%	365 365 \$1 MILL. \$250,000 \$250,000	\$1 MILL. \$250,000 \$250,000 \$1 MILL. \$1 MILL.	60% 50% 100% 90% 80%	50% 50% 100% 50% 50%	50% 50% 100% 50% 50%	50% 50% 100% 50% 50%	80% 80% 80% 80% 80%	40% 50% 50% 50% 50%	50% 50% 50% 50% 50%	50% 50% 50% 50% 50%	60% 70% 70% 70% 70%	50/10 55/22 55/22 50/20 50/20	10 15 15 10 20	60 65 65 65 65	1/65% 5/66% 5/40% 10/50% 10/50%	1/65% 5/66% 5/40% 50% 50%	VAR \$1,200 \$1,200 \$1,099 \$4,780	N N N N Y	— — — — —	— — — — —	\$70 \$30 \$30 \$7,500 \$75	Y Y Y Y Y	N N N N N	Y Y Y Y Y	N N N N N		
85% 100% 365 365 100%	365 \$250,000 \$250 \$365 \$1 MILL.	85% 100% 50% 25% 100%	— 70% 50% — —	— — — — —	— — — — —	— — — — —	85% 85% 42% 100% 40%	— 2.7%y 50% 50% 80%	55.5% 75% 50% 70% 65%	60.5% — 50% 70% 65%	55/25 50/20 55/15 X/25 X/25	— 5 15 15 10	70 80 65 65 60	—/100% —/51.8%y —/54% —/50% —/50%	10/2%y 50% 50% 50% 50%	Y — — — —	— — — — —	— — — — —	\$5,000 \$4,000 \$9,000 \$15,000 \$10,000	N N N N N	Y Y Y Y Y	Y Y Y Y Y	N N N N N				
100% 100% 365 365 100%	X \$1 MILL. \$250,000 \$365 \$1 MILL.	85% 100% 50% 25% 100%	— 100% 50% — —	— — — — —	— — — — —	— — — — —	85% 85% 42% 100% 40%	— 2.7%y 50% 50% 80%	55.5% 75% 50% 70% 65%	60.5% — 50% 70% 65%	55/25 50/20 55/15 X/25 X/25	— 5 15 15 10	70 80 65 65 60	—/100% —/51.8%y —/54% —/50% —/50%	10/2%y 50% 50% 50% 50%	Y — — — —	— — — — —	— — — — —	\$5,000 \$4,000 \$9,000 \$15,000 \$10,000	N N N N N	Y Y Y Y Y	Y Y Y Y Y	N N N N N				
100% 100% 365 365 100%	X \$1 MILL. \$250,000 \$365 \$1 MILL.	85% 100% 50% 25% 100%	— 100% 50% — —	— — — — —	— — — — —	— — — — —	85% 85% 42% 100% 40%	— 2.7%y 50% 50% 80%	55.5% 75% 50% 70% 65%	60.5% — 50% 70% 65%	55/25 50/20 55/15 X/25 X/25	— 5 15 15 10	70 80 65 65 60	—/100% —/51.8%y —/54% —/50% —/50%	10/2%y 50% 50% 50% 50%	Y<br											

received data from 40 agencies with populations ranging from 300,000 to 1,000,000. Like the FOP, the Kansas City General Administrative Survey chose not to analyze the data, but simply presented the statistics in raw form and in summary tables. The Kansas City survey included more data than the FOP survey, for not only are salaries, benefits, and educational requirements included, but vehicles, computer services, personnel deployment, review boards, promotional policies, patrol shifts, and total budgets per capita are given.

The ICMA's Municipal Yearbook presents police data alongside two other public safety related fields--the fire department and sanitation department. In general the ICMA briefly summarizes the data and presents the information in tabular form. Statistics are limited in scope, usually confined to budgets, numbers of sworn and civilian personnel, and some fringe benefit information (though not itemized to the degree of other surveys). Compared to the FOP and Kansas City surveys, the ICMA survey is less comprehensive.

On occasion, however, the ICMA will publish results of broader surveys along with an analysis of the data. The most recent report appeared in 1982, entitled "Police Personnel Practices" and written by James J. Fyfe, Associate Professor of Justice at the American University. The data were collected through a mail survey by the ICMA in the summer of 1982. Questionnaires were sent to municipal police chiefs in all cities 10,000 and over in population. A second request was sent to cities that did not respond to the first questionnaire. Table 3 shows a breakdown of cities surveyed by population, region, division, metro status, and form of government. A total of 2,585 cities were surveyed, with 1,267 (49%) responding. Fyfe's analysis focused

TABLE 3\*  
SURVEY RESPONSE

Classification	No. of cities surveyed (A)	Number responding	
		No.	% of (A)
Total, all cities	2,585	1,267	49.0
Population group			
Over 1,000,000	6	2	33.3
500,000-1,000,000	17	10	58.8
250,000- 499,999	34	18	52.9
100,000- 249,999	113	75	66.4
50,000- 99,999	277	134	48.4
25,000- 49,999	611	322	52.7
10,000- 24,999	1,527	706	46.2
Geographic region <sup>1</sup>			
Northeast	748	297	39.7
North Central	744	393	52.8
South	654	323	49.4
West	439	254	57.9
Geographic division			
New England	310	121	39.0
Mid-Atlantic	438	176	40.2
East North Central	535	271	50.7
West North Central	209	122	58.4
South Atlantic	272	156	57.4
East South Central	135	58	43.0
West South Central	247	109	44.1
Mountain	112	73	65.2
Pacific Coast	327	181	55.4
Metro status			
Central	431	242	56.1
Suburban	1,542	717	46.5
Independent	612	308	50.3
Form of government			
Mayor-council	1,096	470	42.9
Council-manager	1,240	697	56.2
Commission	104	50	48.1
Town meeting	100	31	31.0
Rep. town meeting	45	19	42.2

<sup>1</sup>Geographic regions: Northeast-the New England and Mid-Atlantic Divisions; North Central-the East and West North Central Division; South-the South Atlantic and East and West South Central Division; West-the Mountain and Pacific Coast Division. See Table 1, footnote 4, for states included in the regions.

\*Reprinted from Table 13 of J. Fyfe, "Police Personnel Practices," Baseline Data Report, Vol. 15, January.

upon the problems departments face with regard to budget cuts. Fyfe demonstrated that police departments in the 1980s are "hit hard by inflation" (p. 2). He showed that nearly two-thirds (65.3%) of the police departments that responded to the ICMA survey reported that their budgets had not kept pace with the rate of inflation over the previous three years. Furthermore, he indicated that of the departments that did not keep pace with inflation, 588 suffered actual losses in budgets or have lost other sources of funding (see Table 4).

Fyfe also examined personnel strength, selection criteria, residency requirements, training, and other personnel issues. He found that minorities and women remain underrepresented in policing: that of the departments that responded to the survey, the minority composition of departments averaged 7.6% and the female composition averaged 3.6% (Table 5). In terms of selection criteria, 78% of the cities reporting used written exams, 58.1% used physical performance tests, 99% used background investigations, and 98% employed medical exams. Only three departments of the 1,087 departments that responded to the question about minimum educational standards reported requiring a four-year college degree, and the great majority (79.5%) required a high school or general equivalency diploma. Overall, Fyfe's appraisal of police personnel practices appears gloomy given the problems with budget cuts in recent years. He leaves open the question of how deep and long-lasting the effects of these cuts will have on the future of policing.

In 1977 the Police Foundation continued the Kansas City survey by publishing Police Practices: The General Administrative Survey, edited by John Heaphy, an assistant director at the Foundation. The Foundation

TABLE 4\*

**Impact of Inflation on Departments' Budgets**

Classification	No. of cities reporting (A)	Department budget has kept pace with inflation <sup>1</sup>				If budget not kept pace, has it actually been cut <sup>2</sup>			
		Yes		No		Yes		No	
		No.	% of (A)	No.	% of (A)	No.	% of (B)	No.	% of (B)
Total, all cities <sup>3</sup> .....	1,239	430	34.7	809	65.3	588	72.7	195	24.1
Population group									
Over 1,000,000 .....	2	1	50.0	1	50.0	1	100.0	0	0.0
500,000-1,000,000 ...	10	2	20.0	8	80.0	7	87.5	1	12.5
250,000-499,999 ...	18	7	38.9	11	61.1	9	81.8	1	9.1
100,000-249,999 ...	73	20	27.4	53	72.6	41	77.4	10	18.9
50,000-99,999 ...	133	39	29.3	94	70.7	79	84.0	14	14.9
25,000-49,999 ...	316	118	37.3	198	62.7	141	71.2	52	26.3
10,000-24,999 ...	687	243	35.4	444	64.6	310	69.8	117	26.4
Geographic division <sup>4</sup>									
New England .....	121	40	33.1	81	66.9	67	82.7	10	12.3
Mid-Atlantic .....	171	62	36.3	109	63.7	89	81.7	14	12.8
East North Central....	263	76	28.9	187	71.1	147	78.6	35	18.7
West North Central...	118	39	33.1	79	66.9	58	73.4	17	21.5
South Atlantic .....	152	57	37.5	95	62.5	53	55.8	41	43.2
East South Central...	58	17	29.3	41	70.7	23	56.1	15	36.6
West South Central...	109	48	44.0	61	56.0	27	44.3	32	52.5
Mountain.....	73	28	38.4	45	61.6	34	75.6	10	22.2
Pacific Coast.....	174	63	36.2	111	63.8	90	81.1	21	18.9
Metro status <sup>5</sup>									
Central .....	238	61	25.6	177	74.4	146	82.5	26	14.7
Suburban .....	698	264	37.8	434	62.2	313	72.1	108	24.9
Independent.....	303	105	34.7	198	65.3	129	65.2	61	30.8
Form of government <sup>6</sup>									
Mayor-council .....	459	143	31.2	316	68.8	240	75.9	63	19.9
Council-manager.....	630	259	38.1	421	61.9	300	71.3	113	26.8
Commission.....	50	14	28.0	36	72.0	18	50.0	15	41.7
Town meeting.....	32	8	25.0	24	75.0	19	79.2	3	12.5
Rep. town meeting....	18	6	33.3	12	66.7	11	81.7	1	8.3

<sup>1</sup> Respondents were asked "Has your departmental budget kept up with inflation (i.e., yearly percentage increases have equalled or exceeded the rate of inflation) for the past three years?" and "If No, has your police department had any budget cuts and/or other sources of funding cut back in the last three years?"

<sup>2</sup> Percentages do not total 100% because 26 departments did not specify whether their budgets had been cut.

<sup>3</sup> The term cities is used in this and the following tables to refer to cities, villages, towns, townships, and boroughs.

<sup>4</sup> Geographic divisions: New England—the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Mid-Atlantic—the states of New Jersey, New York, and Pennsylvania; East North Central—the states of Illinois, Indiana, Michigan, Ohio, and Wisconsin; West North Central—the states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota; South Atlantic—the states of Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia, plus the District of Columbia; East South Central—the states of Alabama, Kentucky, Mississippi, and Tennessee; West South

Central—the states of Arkansas, Louisiana, Oklahoma, and Texas; Mountain—the states of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; Pacific Coast—the states of Alaska, California, Hawaii, Oregon, and Washington.

<sup>5</sup> Metro status: Central—the city(ies) actually appearing in the standard metropolitan statistical area (SMSA) title; Suburban—the city(ies) located within an SMSA; Independent—the city(ies) not located within an SMSA.

<sup>6</sup> Forms of government. Mayor-council—an elected council serves as the legislative body with a separately elected head of government; Council-manager—the mayor and council make policy and an appointed administrator is responsible for the administration of the city; Commission—a board of elected commissioners serves as the legislative body and each commissioner is responsible for administration of one or more departments; Town meeting—qualified voters meet to make basic policy and choose a board of selectmen to carry out the policy; Representative town meeting—representatives selected by citizens vote at meetings, which may be attended by all citizens.

\*Reprinted from Table 1 of J. Fyfe, "Police Personnel Practices," Baseline Data Report, Vol. 15 January.

TABLE 5\*

**Minorities and Women in the Police Service**

Classification	Percent full-time paid sworn personnel that are minorities		Percent full-time paid sworn personnel that are women	
	No. of cities reporting	Mean (%)	No. of cities reporting	Mean (%)
Total, all cities.....	1,173	7.6	1,173	3.6
Population group				
Over 1,000,000 .....	2	26.5	2	7.5
500,000-1,000,000 .....	10	24.5	10	5.9
250,000-499,999 .....	18	16.8	18	7.3
100,000-249,999 .....	68	11.1	67	5.1
50,000- 99,999 .....	123	9.3	123	3.9
25,000- 49,999 .....	294	6.9	304	3.4
10,000- 24,999 .....	658	6.8	649	3.2
Geographic division				
New England.....	110	3.0	109	2.5
Mid-Atlantic .....	166	3.8	167	1.2
East North-Central.....	251	4.0	255	2.4
West North-Central .....	112	2.5	111	3.6
South Atlantic.....	142	11.2	140	5.7
East South-Central.....	57	12.6	54	4.6
West South-Central.....	105	17.7	105	5.9
Mountain.....	69	9.3	71	5.1
Pacific Coast.....	161	11.9	161	4.2
Metro status				
Central.....	225	11.8	224	5.0
Suburban .....	659	5.5	663	2.9
Independent.....	289	9.2	286	4.0
Form of government				
Mayor-council.....	442	6.1	446	3.0
Council-manager.....	641	9.1	637	4.1
Commission.....	45	6.8	45	3.3
Town meeting.....	28	2.2	28	1.8
Rep. town meeting.....	17	2.8	17	2.2

\*Reprinted from Table 5 of J. Fyfe, "Police Personnel Practices," Baseline Data Report, Vol. 15, January.

broadened the scope of the Kansas City publication in three ways. First, it included more questions in the survey. Information on minorities, women, educational levels, calls for service, and firearms incidents was sought. Second, the Foundation requested statistics from departments that served jurisdictions of more than 250,000 in population. (The original Kansas City survey limited its requests to those departments that served 300,000 to 1,000,000.) And third, as editor, John Heaphy analyzed part of the data. In his analysis, Heaphy briefly examined seven sections of the data: 1.) Administration: finance; 2.) Administration: benefits; 3.) Personnel: Distribution; 4.) Personnel: Composition and Promotion; 5.) Equipment; 6.) Police Review; and 7.) Special Programs. In each section, ranges and medians were used to describe the data. For example, Table 6 shows the range and median numbers of women officers by rank. Forty of 49 departments responded to the question about female officers. Heaphy reported that "because of the great variability in these numbers, the range of the middle 50 percent of the responding police departments is indicated, as well as the low, median, and high numbers of female officers. Only 22 of the 40 responding departments report women at the rank of sergeant, only four report women at the rank of captain, and none report women at the ranks above captain" (p.13). Another example includes the discussion on equipment. In Table 7, the number of marked units per 100 sworn officers is presented. It indicates that the number of marked police vehicles per 100 sworn officers varies considerably, from a low of 4.5 to a high of 46.6. The medians for the three groups of departments are much more consistent however, falling in the range of 11.9 to 16.4 marked units per 100 sworn officers.

TABLE 6\*

RANGE AND MEDIAN NUMBERS  
OF WOMEN OFFICERS, BY RANK<sup>a</sup>

RANK	No. of Depts	Number of Women Officers				Range of Middle 50 Percent
		Low	Median	High		
Police Officer	39	1	24	625	16-46	
Inspector/ Detective	12	1	5.5	17	2-8	
Sergeant	22	1	1.5	32	1-2	
Lieutenant	9	1	1	15	1-2	
Captain	4	1	1	4	1	
Other Law Enforcement Officers	1	—	1	—	—	

<sup>a</sup>Only the 40 departments that reported any women officers at all are included in the table, and only those ranks for which there are women in those departments.

TABLE 7\*

NUMBER OF UNMARKED UNITS  
PER 100 SWORN OFFICERS

City Size	No. of Depts.	Unmarked Units/ 100 Sworn Officers			
		Low	Median	High	Range of Middle 50 Percent
More than 1,000,000	3	6.41	9.74	34.04	—
500,000- 999,999	17	0.20	12.83	39.67	6.57-17.33
250,000- 499,999	25	2.91	14.56	31.78	10.65-19.42

\* Reprinted from Table 33 in J. Heaphy, Police Practices: The General Administrative Survey, 1978 (Washington: Police Foundation).

\* Reprinted from Table 24 in J. Heaphy, Police Practices: The General Administrative Survey, 1978 (Washington: Police Foundation).

Heaphy gives three cautions on the interpretation and use of data. First, he says that "no suggestion is made or implied that these data are in any way normative." Second, Heaphy warns that definitions for many of the terms used in the survey were not standardized. For example, the title "inspector" may be used in one department to denote an individual who functions as a detective, while in another it refers to a high ranking command person. No attempts were made to clarify all of these distinctions. Third, the variation in administrative data systems gives problems to the report. A universally comparable system of record-keeping among police departments is non-existent and as a result some departments may keep better records than others and uniformity might be lost.

The Police Executive Research Forum's Survey of Police Operational and Administrative Practices — 1977 can be viewed as an extension of the Police Foundation's General Administrative Survey. Both used the same questionnaire, and both presented their data in similar fashion. One distinction that emerges is that the Police Executive Research Forum sent its survey to its membership rather than cities in a certain population group. PERF members include departments whose chief has a college degree and serves a jurisdiction of over 100,000 in population.

The PERF publication included summary tables, raw data, and a partial analysis of some variables. Four areas were covered in the analysis section -- administration, personnel distribution, equipment, and complaints and firearms incidents. In the administration area, the Forum found a wide variation in per capita costs of policing. The southern cities consistently had the lowest median per capita costs, and the northeast/north central region had the highest per capita costs.

The analysis of personnel distribution included discussions of motor and foot patrol shifts; the percentage of civilians, women and minorities in Forum departments; and the college requirements for police officers. Descriptions of computer services and vehicle use were part of the equipment section. Complaints against the police, the number investigated, and the number substantiated were examined in the last section. The Forum reported a wide variation in the complaints received and the complaints substantiated. Without a more detailed study and analysis of individual departments, however, the Forum could not determine the reasons for the high levels of complaints in some agencies and the low levels in others.

The Forum publication also pointed out a number of important caveats and problems of the dataset. First, Forum staff made no attempt to verify or validate each department's specific survey responses. Second, the definitions of various terms used in the survey varied significantly among departments. Third, the level and quality of administrative data, varied substantially across the departments. Fourth, "the exigencies of publication made it necessary to provide highly abbreviated summaries of very complex practices" (p.3). And finally, the Forum warned that the report was purely descriptive in nature, and that "it would be erroneous to assume, that the median reflects good practice, or that those departments which fall above or below the median are somehow succeeding or failing in achieving professional standards of policing. With no standards for measuring acceptable police operational or administrative practices, these data must be taken as simply a picture of the state of the art in 47 police departments taken at one moment in time" (p.4).

The IACP collected and analyzed a particular aspect of process data -- the personnel selection criteria and standards of police at the state and local levels. Eisenberg et al. (1973) surveyed 493 agencies with 50 or more sworn police personnel and focused on selection and promotion procedures. The researchers found a number of differences and similarities across department size and jurisdiction. For example, while both county and municipal agencies indicated a greater extent of employment of minorities, state agencies more frequently reported the use of special recruiting and/or selection procedures for minorities. Minorities tend to be employed more often as sworn personnel in county agencies and as nonsworn personnel in municipal departments. Recruitment techniques, provisions for lateral entry, promotional factors, performance appraisal systems, and procedures for appeals and grievances were all generally similar across types and sizes of agencies, although larger departments appeared to use more varied and formal procedures. Awards or commendations and peer ratings were infrequently used across agency type and size, and civilian review boards were virtually non-existent.

In the Police Services Study, Elinor Ostrom, Roger Parks and Gordon Whitaker describe the services of police agencies throughout the United States. The authors used an industry approach to their study. That is, they used concepts of producers and consumers of police services, which contrast with traditional research based on an organizational approach. The industry approach permitted an exploration of "interorganizational" arrangements for service delivery. The areas studied by Ostrom et al. were Standard Metropolitan Statistical Areas (SMSAs) under 1.5 million in population and lying within only one state.

A random sample of 80 SMSAs was selected from 200, thus making the results more generalizable to the population. Data were collected from state sources and from individual police agencies during the last half of 1974 and 1975. Interviews, either in-person or telephone, mail surveys, and mixed methods were used to confirm their data. Ostrom et al. describe the quality or the climate of the interviews as well, giving further confidence to the general quality of their data. In all 1,761 producers of police services in the 80 SMSAs participated in this study.

The Police Services dataset is currently on-line and available on computer tape through the Criminal Justice Archive and Information Network (CJAIN) which is a part of the Inter-University Consortium for Political and Social Research (ICPSR). The Police Services dataset for 1974-75 contains three files. The first contains information for the 1,761 producers. The second file contains information for 1,885 consuming units. The third file involves the relationship between the producers and the consumers and is summarized in matrix form. The first file on producers is of primary concern to this report, for it involves process data.

Fourteen areas involving administrative and operational practices that we define as process data are delineated in the first file. Geographical information, organizational structure, number of officers by rank, number of precincts and autos, collective bargaining, eligibility requirements, salary, training, traffic control, criminal investigation, dispatching, emergency services, miscellaneous services, cooperative arrangements, and financial information are included (see Appendix B for the complete variable list.)

In their analysis, published by Ballinger in 1978 as Patterns of Metropolitan Policing, Ostrom et al. describe four areas that involve process data: general area patrol, traffic control services, criminal investigation, and auxiliary services (radio communications, adult pretrial detention, entry level training, and crime laboratory analysis.)

Ostrom et al. found that municipal and county police agencies conducted the bulk of patrol work in most SMSAs. Campus police, military police, and other special district police were important in some SMSAs. General area patrol duties occupied the largest number of personnel in most local police agencies. Data on the agencies conducting patrol service, the operational organization of patrol agencies, patrol deployment and citizen-to-patrol officer ratios, variations in patrol practices, and the relationship between agency size and operational structure were presented in tabular form.

Ostrom et al. found that traffic control services were conducted primarily by local police agencies, though state police and highway patrols made important contributions. Cooperation among the agencies was common especially in areas where major thoroughfares crossed jurisdictions. In terms of criminal investigations, the researchers found that local police agencies investigated more residential burglaries than homicides. Small municipal, campus, and special district police agencies were least likely to investigate homicides. Often smaller agencies coordinated their efforts with those of detectives from another department.

Auxiliary services (radio communications, adult pretrial detention, entry level training, and crime laboratory analysis) were

designed to serve police agencies, and therefore viewed differently from police services supplied directly to citizens. The researchers found that with the exception of radio communications, the proportion of direct service producers who also produced their own auxiliary services was quite low. That is, the smaller agencies that supply direct services seldom had detention facilities, training academies, and crime labs of their own and therefore shared with others. The large direct service agencies were more likely to produce their own auxiliary services; yet Ostrom et al. could find only one of the 1,454 local producers in the 80 SMSAs that supplied all the services studied.

Overall, Ostrom et al. found considerable interdepartmental communication and coordination of services. They discovered a rich network of interrelationships among agencies especially with regard to the auxiliary services. The researchers also broadened the scope of law enforcement statistics by concretely demonstrating that the data could be used for day-to-day administrative decisionmaking.

#### STATE AGENCIES -- STATISTICAL ANALYSIS CENTERS

State agencies also collect law enforcement statistics, primarily process data. According to the Criminal Justice Statistics Association, six states currently collect and publish data through their respective Statistical Analysis Centers (SACs). Iowa, Idaho, North Carolina, North Dakota, New Hampshire, and Ohio gather statistics on a limited basis. The most extensive state-wide collection occurs in Iowa, where Marcia Cohan has accumulated data from sheriff's departments and municipal departments for the past six years (1979- present). Data from the Iowa police agencies usually include salaries, benefits, budgets, personnel

TABLE 8\*

information, departmental policies, training, and educational requirements.

The Iowa SAC works with the state associations of chiefs of police and sheriffs to determine the type of data that the police want annually. The chiefs and sheriffs prioritize their needs, and based on an evaluation of those priorities, the Iowa SAC modifies its questionnaire (see Appendix C). Data that are not needed on an annual basis, such as statistics on departmental policies and training are eliminated. Table 8 shows the data collected by the Iowa SAC for 1981, 1983, and 1984. The table illustrates the type of statistics gathered and not gathered based on the demands for them by the chiefs.

By working cooperatively, the response rate for the survey is particularly high (for sheriff's departments the rate was 98 responses out of 99 surveys). In addition, the results are published on a timely basis, without the delays that are endemic to a number of collection efforts.

**DATA COLLECTED BY SAC  
ON IOWA POLICE DEPARTMENTS**

	FY '81	FY '83	FY '84
<u>Salaries</u>			
Low & high by rank . . . . .	x	x	x
Grouped acc'd. to ranges . . . . x	x	x	x
<u>Personnel Benefits</u>			
Types of benefits offered . . . x	x	x	x
Vacation, sick & holidays . . . x	x	x	x
Comp. time & paid overtime . . . x	x	x	x
Second job allowance . . . . .	x	x	x
Restriction on second job . . . x	x	x	x
Pension system . . . . .	x	x	x
<u>Departmental Budget</u>			
Appropriations by category . . . x	x	x	x
Federal funds . . . . .	x	x	x
<u>Manpower Strength</u>			
Authorized, full-time . . . . x	-	-	-
Newly created, full-time . . . . x	-	-	-
Filled, full-time by rank. . . . x	x	x	x
Filled, part-time (paid) . . . . x	-	-	-
Filled, part-time (unpaid) . . . x	-	-	-
Auxiliaries - auth. & filled . . x	x	x	x
<u>Employee Characteristics</u>			
Length of law enf. service . . . x	-	-	-
Age ranges . . . . .	x	x	x
Sex and race (by rank) . . . . x	x	x	x
Education (by rank) . . . . .	x	x	x
Currently enrolled in ed. prgm	x	-	-
Types of ed. benefits offered . . x	-	x	-
Turnover and vacancies . . . . x	-	-	x
<u>Departmental Policies</u>			
Entrance requirements . . . . x	-	-	-
Educational requirements . . . . x	-	-	-
Promotional requirements . . . . x	-	-	-
<u>Entry-Level Training</u>			
Instructors . . . . .	x	-	-
Type of training . . . . .	x	-	-
Average number of hours . . . . x	-	-	-
Depts. requiring ILEA trng.	x	-	-
before one-man car assignment			

\* Distributed by the Iowa Police Department from the Statistical Analysis Center

## V. OUTPUT DATA

<u>In-Service Training</u>	FY '81	FY '83	FY '84
Required or optional . . . . .	x	-	
Average number of hours . . . . .	x	-	x
Instructors . . . . .	x	-	
If instructors are ILEA certified . . . . .	-	-	x
Depts. offering trng.. . . . .	x	-	x
<u>Equipment</u>			
Caliber of weapon . . . . .	x	-	
Types of equipment . . . . .	x	-	x
Number of vehicles . . . . .	x	-	x
Replacement schedule . . . . .	x	-	
Computerized operations . . . . .	-	-	x
<u>Activities</u>			
Calls for service . . . . .	x	x	
Investigations . . . . .	x	x	
Function of staff . . . . .	x	-	
<u>Crime Prevention</u>			
Depts. with programs . . . . .	x	-	x
Types of programs . . . . .	x	-	x
Depts. planning prgms. . . . .	x	-	x
<u>Jail contracts</u>			
Depts. under contract . . . . .	x	-	-
Daily cost/prisoner . . . . .	x	-	-
<u>Collective Bargaining</u>			
Types of units . . . . .	x	x	x
Depts. with interest . . . . . in forming units	x	x	x

Output data are defined as statistics concerned with the performance of law enforcement agencies. Within this category we included arrests, clearance rates, convictions, citizen attitudes, use of force (by police and by citizens against the police), civil liability cases, and non-crime related services.

The Uniform Crime Reports are the most widely known national level data series on crimes known, arrests, and clearance rates. These data are collected annually through the FBI. Assessments of the strengths and weaknesses of the statistics are well-documented elsewhere, are the focus of the UCR redesign effort funded by BJS, and need not be addressed here.

### USE OF DEADLY FORCE

The use of deadly force by the police and against the police has become a controversial topic over the last decade. One might expect that the importance of police violence would give incidents of shootings and assaults such visibility that counting them would not present a major challenge for research. But that has not been the case for data on violence by and against the police. Researchers and police administrators do not know the extent of shootings by the police on a national or state level. Information on the frequency of officers who are killed or injured are available in limited fashion from the FBI. The FBI has collected data on police officers killed in the line of duty since 1960 in the annual Uniform Crime Reports (see, e.g., FBI, 1981),

as well as figures on assaults and woundings. Data on civilians who have died at the hands of the police through shootings, chokeholds, or other methods have been publicly accessible through coroners' records, although questions have been raised about the completeness of these records (Sherman and Langworthy, 1979).

Historically, official records on use of deadly force by police were uncompiled or off-limits to outsiders (see Geller, 1979). In the last few years, however, a number of city police departments (e.g., Chicago, New York, Kansas City, Los Angeles, Washington, D.C.) have been willing to reveal data on police-involved shootings to researchers and the public generally. Studies by the Police Foundation (Milton et al., 1977), James J. Fyfe (1978), William Geller and Kevin Karales (1981), Marshall Meyer (1980), Mark Blumberg (1983), Craig D. Uchida (1982), and Kenneth Matulia (1982) disclose pertinent information about police shootings using official records.

Many of the empirical researchers have tried to explain patterns of shootings, within or across police departments. A number of factors have been examined to help determine the number and type of shootings -- community characteristics, state law and administrative guidelines, situational variables, and individual characteristics. These studies have found that cities vary considerably in the number of shootings they experience. Another important finding in the literature suggests that a number of civilians are shot by police while engaging in conduct that does not imperil life. This finding is often linked to the problems associated with the "any felony" guideline of the common law.

The empirical studies of individual departments give clues to the type of data that need to be collected on a national level. Only two

studies have collected data nationally on deadly force, and only one of those two works have analyzed the data. Kenneth Matulia (1982) collected and analyzed data through a National Institute of Justice grant. With the IACP, Matulia conducted a survey of 57 police departments to determine the character of justifiable and unjustifiable homicides committed by the police. Matulia's work was a one-time-only study and did not reveal information on non-fatal exercises of deadly force (injuries, misses and accidentals).

The Survey of Police Operational and Administrative Practices (Police Foundation and PERF, 1981) was the only other national survey that collected some data on the use of deadly force by police. These data were limited to four variables -- the number of officers who discharged a weapon, the number of incidents that involved a firearm, firearm incidents that involved injury, and firearm incidents that involved a fatality. Of the 122 police departments that participated in the survey, 105 reported figures for each of the four questions. This suggests that large departments (those that serve jurisdictions of over 100,000) currently maintain statistics on deadly force and show some willingness to divulge that information.

#### CIVIL LITIGATION CASES

According to a survey conducted by the IACP on behalf of the Americans for Effective Law Enforcement, the number of civil suits brought against the police throughout the United States doubled between 1967 and 1971 (Schmidt, 1974). About 20 percent of the suits were filed in federal court, primarily under the Civil Rights Act of 1871

(specifically, section 1983). The majority of the suits (67.8 percent) alleged false arrest or brutality. Of the total number of suits initiated against the police in 1967-1971 only 3.8 percent were "lost" by police defendants.

During the period covered by the IACP survey, civil rights misconduct cases were brought against individual officers rather than the police department itself. This occurred because of the Supreme Court's ruling in Monroe v. Pape in 1961. In this case, the Court refused to hold the Chicago Police Department liable for a warrantless search and ransacking of a family's home and the illegal detention of the head of the household. The court stated that the proper avenue of citizen redress was against individual police officers rather than the police department because municipalities were categorically immune from liability.

In 1978, however, the Supreme Court broke with Pape in its landmark decision, Monell v. Department of Social Services of New York City. In Monell the court ruled that local governments have no absolute immunity from damage suits for civil rights violations under section 1983 of the Civil Rights Act. The decision opened the door for suing police departments and other municipal agencies. The Monell ruling will make it easier to bring and win civil rights suits against police departments and other units of local government. The decision may also encourage citizens, to sue the department rather than individual patrol officers or police administrators because of the lucrative incentive for doing so. The case may also prompt police departments to establish legally defensible written policies covering a wide range of ministerial and discretionary patrol practices, fearing that failure to specify

standards of performance may make them more vulnerable to successful civil rights suits.

No information is currently available on civil litigation cases. Data on the cases, the circumstances that led to them and their dispositions would be useful to the police, government officials, and researchers.

#### NON-CRIME RELATED SERVICES

Police involvement in non-crime related services includes dealing with community watch programs, emergency services (ambulance service), schools, and public health. For the most part, these areas have been neglected in collection efforts, with the exception of Ostrom et al. Their Polices Services Studies included information on school crossing guards, ambulance services, coroner services, parking meter collection, animal roundups, and civil process serving.

## VI. SUMMARIZATION OF DATA

To sum up the three sections on input, process, and output data we have developed a table that compares the data collection efforts across a number of items (Table 9). For this comparative table, the most recent publications for the Fraternal Order of Police (FOP), International City Management Association (ICMA), and Kansas City Police Department (KCPD) were used.

Overall, these data collection efforts vary in breadth and depth depending upon the priorities and needs of the collectors. All of the enterprises used survey questionnaires to gather data, with the Ostrom group using additional methods to validate their information. The content of the questionnaires also differed. The Police Executive Research Forum (PERF), the Police Foundation (PF), and the joint PERF/PF endeavor included input, process, and output data. The Fraternal Order of Police (FOP) and ICMA requested only process information.

Some studies asked more detailed questions than others. For example, Ostrom et al. requested financial information not only on salaries and budgets (as did KCPD, PERF, PF and PERF/PF), but also on the sources of revenue and the amounts of contributions to pensions.

Most of the reports identified the departments that participated in the surveys, though the International Association of Chiefs of Police (IACP) and the National Association of Criminal Justice Planners (NACJP) chose to allow the agencies to remain anonymous for purposes of confidentiality.

Analysis of the data ranged from no analysis (FOP, KCPD, PERF/PF) to selective interpretation (ICMA, PERF, PF, IACP, NACJP), to

TABLE 9

## COMPARISON OF DATASETS BY DESCRIPTIVE VARIABLES

	FOP	ICMA	KCPD	PERF	PF	PERF/PF	IACP	NACJP/BJS	OSTROM	IOWA SAC
Sample size	N=1,065 state & municipal police depts.	N=6,943 <sup>a</sup> municipalities	N=40 municipal	N=45 municipal & county	N=50 municipal	N=122 municipal	N=493 state, municipal & county	N=53 <sup>b</sup> "producers"	N=1,761 municipal	N=202 municipal
Population sizes in (1000)	10,000 to 1,000,000+	2,500 to 1,000,000	300,000 to 1,000,000+	75,000 to 500,000+	250,000 to 1,000,000+	50,000 to 500,000+	NA	2,978 to 1,000,000+	NA	5003 to 191,003
Survey method	Q*	Q	Q	Q	Q	Q	Q	Q	mixed	Q
Analysis	N	Y	N	Y	Y	N	Y	Y	Y	Y
Publication dates	1951 -	1939 -	1951-73	1978	1978	1981	1973	1983	1978	1979 -
<hr/>										
Input Data:										
Calls for service	N	N	N	Y	Y	Y	N	Y	N	Y
Crimes known to police	N	N	N	N	N	N	N	Y	N	N
<hr/>										
Process Data:										
Budget: salary by dept.	N	Y	Y	Y	Y	Y	N	Y	Y	Y
salary by rank	Y	N	Y	Y	Y	Y	Y <sup>f</sup>	N	Y	Y

a - 6,588 cities and other urban places 2,500 and over in population, 355 council manager and general management places under 2,500 population.

b - reported anonymously

f - new police officers only

\* Questionnaire

	FOP	ICMA	KCPD	PERF	PF	PERF/PF	IACP	NACJP/BJS	OSTROM	IOWA SAC
<b>Process Data (cont.)</b>										
<b>Benefits:</b>										
Life/death	Y	Y <sup>c</sup>	Y	Y	Y	Y	N	N	N	Y
Disability	Y	Y <sup>c</sup>	Y	Y	Y	Y	N	N	Y <sup>c</sup>	Y
Pension	Y	Y <sup>c</sup>	Y	Y	Y	Y	N	N	Y	Y
Survivors	Y	Y <sup>c</sup>	Y	Y	Y	Y	N	N	Y <sup>c</sup>	N
Paid Leave	Y	Y <sup>c</sup>	Y	Y	Y	Y	N	Y <sup>c</sup>	Y	Y
<b>Personnel:</b>										
Distribution	N	N	N	Y	Y	Y	Y	Y	Y	Y
Number of sworn and civilian	Y <sup>e</sup>	Y <sup>e</sup>	Y	Y	Y	Y	Y	Y	Y	Y
Minority (race)	N	N <sup>d</sup>	N	Y	Y	Y	Y	N	N	Y <sup>g</sup>
Minority (women)	N	N <sup>d</sup>	N	Y	Y	Y	Y <sup>g</sup>	N	N	Y
<b>Entrance:</b>										
requirements	Y	N	N	Y	Y	Y	Y	N	Y	Y <sup>i</sup>
lateral entry	N	N	N	Y	Y	Y	Y	N	N	N
<b>Education:</b>										
requirements	N	N	Y	Y	Y	Y	Y	N	Y	Y <sup>i</sup>
level of dept.	N	N	N	Y	Y	Y	N	N	N	Y

c - not itemized  
 d - aggregated only  
 e - civilian personnel not included  
 g - race not specified  
 i - for FY 1981 only

	FOP	ICMA	KCPD	PERF	PF	PERF/PF	IACP	NACJP/BJS	OSTROM	IOWA SAC
<b><u>Education (cont.):</u></b>										
Incentive pay	Y	N	Y	Y	Y	Y	N	N	Y	Y <sup>1</sup>
<b><u>Other:</u></b>										
Training	N	N	N	N	N	N	N	Y	Y	Y
Traffic control	N	N	Y <sup>h</sup>	Y <sup>h</sup>	Y <sup>h</sup>	Y <sup>h</sup>	N	Y	Y	N
Criminal investigation	N	N	Y <sup>h</sup>	Y <sup>h</sup>	Y <sup>h</sup>	Y <sup>h</sup>	N	Y	Y	Y
Promotional policy	N	N	Y	Y	Y	Y	Y	N	Y	Y <sup>1</sup>
Shifts	N	N	Y	Y	Y	Y	N	N	N	N
Computer capability	N	N	Y	Y	Y	Y	N	Y	Y	Y
Vehicles	N	N	Y	Y	Y	Y	N	Y	Y	Y
<b><u>Output Data:</u></b>										
Appeals and grievances	N	N	Y	Y	Y	Y	N	N	N	N
Review boards	N	N	Y	Y	Y	Y	N	N	N	N
Collective bargaining	Y	N	N	N	N	N	Y	N	Y	Y
Legal support	Y	N	N	N	N	N	N	N	N	N
Firearms incidents	N	N	N	Y	Y	Y	N	N	N	N

h - numbers of personnel only  
 i - for FY 1981 only

<u>Output Data</u> (cont.):	FOP	ICMA	KCPD	PERF	PF	PERF/PF	IACP	NACJP/BJS	OSTROM	IOWA SAC
State police	Y	N	N	N	N	N	Y	N	N	N
Emergency services (ambulance)	N	N	N	N	N	N	N	N	N	N
Miscellaneous services (crossing guard, meter collection)	N	N	N	N	N	N	N	N	Y	N

comprehensive analysis (Ostrom et al. and the Iowa Statistical Analysis Center).

#### METHODOLOGICAL ISSUES

A number of methodological issues were raised within these studies. Sampling, validity, reliability, uniformity, and comparability were addressed explicitly or implicitly.

All of the efforts used different criteria for their sample selection procedures. The ICMA sent questionnaires to all municipalities with 2,500 or more in population. The Kansas City Police Department was more selective, choosing the larger cities (300,000 to 1,000,000) for its work. The Police Foundation's version of the KCPD survey included all cities with 250,000 or more citizens. The PERF study in 1978 requested data from its membership of police chiefs and the FOP asked its state, local and subordinate lodges for information. Ostrom et al. randomly sampled 80 SMSAs from a pool of 200 SMSAs in the country with populations of less than 1.5 million and that were included within one state boundary. The IACP chose a different route entirely. The police chief organization sent questionnaires to departments with 50 or more sworn personnel. The Iowa SAC used similar criteria; it requested data from all municipal agencies in Iowa that had at least one full-time sworn officer (313 departments). The PERF/PF endeavor used 100,000 or more in population and PERF members (some were under 100,000) as their criteria. The NACJP study did not indicate its sampling technique.

An implicit problem within these studies is the validity of the

survey instruments. Most of the data collection efforts did not validate their questionnaires. That is, they did not insure that their instruments measured what they wanted to measure. It is unclear whether the data are good indicators of the abstract concepts under investigation. Only Ostrom et al. attempted to validate their data by drawing upon a number of sources for similar information. Ostrom et al. used survey questionnaires, reviewed state and local records, and conducted interviews with key personnel to measure police services. (This procedure also helped to ensure the reliability of their data).

Most of the other collection efforts acknowledged that validation did not take place. The Police Executive Research Forum wrote a statement that typified statistics gathering efforts: "Forum staff made no attempt to validate each department's specific survey responses. For this reason, the data are presented as they were reported by the participating Forum departments" (Farmer, 1978:2).

Another aspect of the validity issue involves the uniformity of statistics. Police departments do not use the same definitions and classifications of certain items, making statistical comparison difficult. For instance the Police Foundation reports that "such phrases as 'team policing' and 'complaints unsubstantiated' can have very different meanings in different departments." Furthermore, titles like "inspector" may denote an individual who functions as a detective in one department, while in another it refers to a high-ranking command person (Heaphy, 1978:2). Without a uniform reporting procedure, the likelihood of erroneous comparative analysis increases.

Another important problem involves reliability of the police statistics. Reliability refers to the extent to which a measuring

procedure yields the same results on repeated trials. Consistency and accuracy are important components of reliability. For law enforcement statistics reliability requires the consistent reporting of valid data by each department from year to year. To achieve consistency, police statistics must be accurate, complete, and timely.

The accuracy of law enforcement statistics varies by department and by compilers of the data. That is, some police agencies may have highly sophisticated and efficient methods of recording data, while others may not. Police statistics are gathered by a variety of individuals and accuracy is endangered because of it. Errors creep into reported data because personnel may fail to read available instructions, may fill out forms in haste, or may make simple counting mistakes. For example, in the PERF/PF publication in 1981 errors in addition, in key-punching and in tables were discovered after the manuscript went to press. Some changes were made, but others remain. These inaccuracies were attributable to the police who reported the figures, the computer key-punchers and the editors of the publication. The IACP study in 1973 tried to eliminate errors of accuracy and inconsistency by establishing a nationwide network of regional coordinators who checked the data obtained from local agencies. Twenty-one coordinators were "provided with a checklist of questions and combinations of questions to review to insure accuracy, consistency, and completeness" (Eisenberg et al., 1973:3). Once the regional coordinators checked the data, the IACP project staff verified the information, once again resolving inconsistencies or omissions.

The other studies were not as careful. The FOP noted that "We cannot attest to the accuracy of the figures used in this survey as they

are compiled from information received from various police agencies" (FOP, 1983).

#### CONCLUSION

Because of the inconsistencies within all of the previous collection efforts, it becomes increasingly clear that a research plan include a solid methodological foundation. Sampling designs, validity and reliability concerns, and uniformity and comparability issues need to be addressed more fully if a national collection of law enforcement statistics is to take place.

## VII. USERS' SURVEYS

Two surveys were conducted to determine the usefulness and availability of law enforcement statistics. The Police Executive Research Forum (PERF) was contracted to survey large police departments. The Institute of Criminal Justice and Criminology conducted a telephone survey of researchers and policymakers to ascertain their priorities and needs. This section reports the results of those surveys.

The Police Executive Research Forum distributed a 77-item questionnaire based on questions from the Survey of Police Operational and Administrative Practices -- 1981 (see Appendix D). The questionnaire was sent to all police departments with 100,000 or more in population and all PERF members, for a total of 153 agencies. Ninety agencies (59 percent) responded to the survey.

The survey was designed to answer three questions about police administrative and operational information. The first question concerned utility. The Forum asked, "How useful or important is it that you have comparative, up-to-date information on the practices of agencies similar to your own?" The second question dealt with the availability of data: "How easy or difficult is it for your agency to provide the information in the requested categories or format?" The third question concerned the availability of the same or similar information from sources other than the Kansas City/Police Executive Research Forum/Police Foundation reports. For the question of utility, four responses were possible: high, medium, low or none. For the question on availability, possible responses included: available, modification (data were available, but some modification was necessary),

difficult, or not available. For the question on alternate sources of similar information, two answers were possible: "other" (the item is readily available from other alternative sources) or "unique" (the item was only available through the Kansas City/PERF/Police Foundation reports). Four open-ended questions allowed the police to discuss their preferences in the frequency of collection and publication of data; the unit of analysis; the format (printed report, computer tape, diskette); and additional statistics they would like to see.

The results of this survey allowed us to determine the priorities and availability of data within large police agencies. Overall, we found that input data were particularly useful to the police. The utility of process data ranged from low to high, and output data were of "medium" use. As for availability of the data, departments indicated that statistics were available either in the format requested or through modification. The open-ended questions showed that police supported annual collection and publication of statistics. The police preferred printed reports that used population and agency size as the units of analysis. The police also recommended about 50 additional variables that would be useful to them.

Table 10 illustrates the degree of usefulness of specific variables to the police. We have collapsed the 77 items on the PERF questionnaire to coincide with our comparative chart (Table 9, p. 47) in the previous chapter. Calls for service (input data) rated high in usefulness. The number of citizen calls by telephone; the number of calls responded to by dispatching a unit; the type of screening process for calls; and the number of calls handled by other methods received a majority or plurality of marks in the high utility column. One variable

TABLE 10

## Utility of Statistics to Large Police Departments

(based on PERF survey)

		<u>USE</u>			
		Hi	Med	Lo	None
Input data					
Calls for service		X			
Crimes known			Not available		
Process data					
Budgets:	Salary by dept.	X			
	Salary by rank	X			
Benefits:	Life/death	X			
	Disability	X			
	Pension	X			
	Survivors	X			
	Paid leave	X			
Personnel:	Distribution	X			
	No. sworn & civilian	X			
	Minority (race)	X			
	Minority (women)	X			
Entrance:	Requirements	X			
	Lateral entry		X		
Education:	Requirements	X			
	Level of dept.	X			
	Incentive pay	X			
Other:	Training		Not available		
	Traffic		Not available		
	Crim. invest.		X		
	Promotion			X	
	Shifts (assignment)		X		
	Computer		X		
	Vehicles		X		
	Civil liability		X		
Output data					
	Appeals & grievances		Not available		
	Review boards		X		
	Collective bargaining		Not available		
	Legal support		Not available		
	Firearm's incidents		X		
	State police		Not available		
	Emergency services		Not available		
	Miscellaneous		Not available		

was rated low in usefulness and in availability -- the number of calls for information only.

For process data, budget (salary by department and by rank), employee compensation (including incentive pay), and promotion information rated high. Benefits, personnel, education, criminal investigation, shift assignment, computer operations, vehicles, and civil liability received medium ratings. Entrance requirements and lateral entry received low rankings for usefulness. Under output data, firearms discharge and review board information were seen as having medium use.

In terms of availability only two specific items (of 71 measured items) could not be readily obtained by a majority of police agencies. The dollar amount of civil liability payments (item 35 on the questionnaire) was available in 44 percent of the agencies, was available with modification in 23 percent, and was difficult to obtain or not available in 27 percent of the departments responding to the questionnaire. The lowest scores on availability came from item 21, the number of calls for information only. Figures for this variable were as follows: available in 23 percent of the agencies, available with modification in 14 percent, and difficult to obtain or not available in 59 percent of the departments. These scores contrast markedly with the overall availability of data, as all other items were at least obtainable in 62 percent of the agencies.

A number of departments recommended additional statistics for collection. More information was requested on training programs, especially topics taught, time devoted to each, and the type of in-service training provided. More data on response times for

emergency/non-emergency calls was sought. Output data, particularly citizen complaints (procedures, dispositions, and analysis) and the effectiveness of community watch programs were suggested.

In general, the Forum survey provided useful information on the statistics deemed important by the larger police agencies in the country. Unfortunately, the results of the survey may not apply to the smaller departments (those that serve jurisdictions of less than 100,000), so we cannot generalize to the entire population of police agencies. One conclusion that can be made from the survey is that we cannot eliminate any of the questions that have been asked in previous questionnaires. In fact, it appears that additional variables need to be added to our list to satisfy the major departments in the country.

#### TELEPHONE INTERVIEWS

Telephone interviews were conducted with police, researchers and policymakers in an effort to assess the usefulness and availability of law enforcement statistics (see Appendix E). The questions (see Appendix F for the questionnaire) addressed their areas of interest with regard to these statistics, the availability and accessibility of this information, the types of information lacking at present and the demands by the public for statistical reports (asked of police only).

In-depth interviews were conducted with three "progressive" police departments. Their primary areas of interest were similar to our findings from the PERF survey. Those interests focused on response time, calls for service, crime rates, workloads, assignments and budgets. The majority of this information is generated by each agency for its own use. Data which are unavailable from the individual agency's

records (computerized, for the most part) are sought from other sources: the UCR; the Sourcebook of Criminal Justice Statistics; surveys published by organizations such as PERF and the Police Foundation; and other police agencies. These sources provide a basis for regional and nationwide comparisons of budgetary information and promotional policies.

The police departments which were contacted were quite confident in their ability to generate the statistics necessary to meet the demands placed upon them for reports or for research. Several of these agencies produce statistical reports for distribution to the public covering such subjects as high/low crime areas and calls for service. Consequently, they felt no need for additions or deletions from the statistical reports available to them, nor did they feel that a change in the reports' formats was in order. Not all the information contained in the reports was of interest to each department.

Academicians and policymakers expressed interest in more specific areas, including:

1. deadly force (killings by and of police);
2. officer characteristics (race, rank, change over time);
3. arrest characteristics;
4. offense type and incidence;
5. spacial indicators (location of crime);
6. cities as units of analysis;
7. personnel figures; and
8. victimization and self reported crimes.

Academicians, like the police, tend to seek original sources for their information. Contacts within agencies provide the statistics. The UCR and the Sourcebook also provide invaluable information. PERF and Police Foundation-type reports do not rate as highly in their estimation due to the lack of accuracy in the data. However, the information contained therein is considered by some to be the best available for comparative and evaluative purposes.

Several suggestions were made as to the method to improve the present availability and accessibility of law enforcement statistics. Of premier importance is an exhaustive index of the data currently available. This index should contain statistics on deadly force (number of civilians shot by the police; dates pf death; jurisdiction of officer and officer status), arrest patterns and rates, police personnel characteristics (officer race by rank), crime clearances (on the spot arrests vs. arrests resulting from investigation), the incidence of "stop and frisk", stolen property (amount recovered vs. amount returned), and separate (not aggregate) offense categories. (Note: an interest was expressed in international comparative crime statistics. It was not addressed in this report because the sources under scrutiny are national in character and do not direct themselves to this topic.)

The findings from the telephone survey indicate that not surprisingly, researchers and policymakers have different priorities than the police, though some overlap does occur. Personnel figures, cities as units of analysis, officer characteristics are important to both the police and researchers. But academicians place a higher priority on crime information, particularly the arrest/non-arrest characteristics; offense type and location; victimization; and the use of deadly force.

## VIII. RECOMMENDATIONS

This section presents recommendations for obtaining law enforcement administrative statistics on a national scale. From our historical overview and examination of existing datasets, we have found that data collection efforts are inconsistent at best and non-existent at worst. Complete and comprehensive statistics need to be collected nationally and on a regular basis. Based on findings from the users' surveys and from our literature review we recommend that work on the development of a national level series continue with the expectation that a collection effort would commence in the near future. Prior to the implementation of the series we recommend the following:

### RECOMMENDATION 1: Setting Priorities.

We must determine exactly which statistics are essential and establish priorities for the types of statistics that should be collected and reported. Indications of priorities were partially established through the user's survey, but we need to expand on it to include smaller agencies. We recommend that another survey be sent to a random sample of smaller departments to determine their priorities, and that further analyses be conducted of the responses to the surveys so that more precise priority rankings can be established.

### RECOMMENDATION 2: Establishing Working Definitions.

Once priorities are set up, uniform definitions and operationalization procedures are needed. All police agencies must consistently report their data using the same definitions and

classifications. A uniform reporting procedure makes it possible to determine areas where statistical comparison is valid and thus reduce the likelihood of erroneous comparative analysis.

For the purposes of a national collection effort, we recommend that the definition of a law enforcement agency delineated on page 5 of this report be adopted. Briefly stated, a law enforcement agency includes the following components: 1. the power to arrest; 2. sufficient resources to warrant direct reporting of data to a central statistical agency; and 3. clearly defined jurisdictional boundaries. Statistics on private police and on jail-related duties should be excluded.

Overall, uniform definitions, classifications and operationalizations for police statistics are not readily available. The Dictionary of Criminal Justice Data Terminology defines a broad range of definitions, but excludes key terms like calls for service, dispatch, use of deadly force, firearms discharges, and civilian complaints. A partial solution to the dilemma of uniformity would be to use definitions and standards developed by the Commission on Accreditation of Law Enforcement Agencies. Further work must be completed on definitions and measurement procedures.

#### RECOMMENDATION 3: Determining the Type of Collection Instruments.

To collect the data, an appropriate methodology is necessary for valid and reliable statistics. The first step involves the development of a collection instrument. Survey questionnaires are clearly the most efficient and cost-effective method of acquiring data, but problems of validity and reliability within the questionnaires themselves and in the

collections have hindered the full use of the data. To enhance validity and reliability, the survey instrument should be pretested and supplemented with other methods along the lines of the Ostrom collection effort. (Ostrom et al. used state and local records, in-person and telephone interviews, and mail surveys to verify their data).

Based on the Iowa Statistical Analysis Center's evaluation, we further recommend that consideration be given to the use of at least two surveys: an initial survey that would gather the full range of statistical information available ("long-form"), and a second survey which would be of more limited range ("short-form"). The second survey would select a limited number of representative items that could be monitored in a more cost-effective way. By using two surveys we would maintain the ability to identify trends in law enforcement and preserve continuity between reporting periods, while cutting costs. In addition, this procedure would allow us to collect data on an annual basis for statistics that the police deem important. We recommend that the "long-form" be used every three years, with the "short-form" used in the years in-between.

#### RECOMMENDATION 4: Sampling Procedures.

More consideration should be given to the costs and benefits of sampling schemes. In the past, sampling has been conducted in a rather haphazard manner with little regard for scientific considerations. Attention should be directed to the benefits of sound sampling practices. Substantial research must be completed to determine the more difficult sampling strategies.

and Criminology is ready to continue its research in this area so that a national series could be launched in 1985-1986.

**RECOMMENDATION 5: Timeliness.**

Three issues of timeliness emerge. First, we must insure that the police report data that are current and up-to-date. Second, the statistics must be disseminated in a timely fashion. No matter how accurate the data, statistics which are not available within a reasonable time period will be of limited value to police administrators and government officials. Third, we recommend that national level collection efforts take place annually using the short-form, and every three years using the long-form.

**RECOMMENDATION 6: Feedback Mechanisms.**

A feedback or evaluation mechanism should be introduced to allow comments and recommendations within the collection instrument.

**RECOMMENDATION 7: Pretest.**

We recommend that a pretest of the entire mechanism take place to iron out difficulties and to determine the feasibility of the plan.

**RECOMMENDATION 8: Conduct National Level Collection.**

Once the pretest has proven that the questionnaire and other components are acceptable a national level collection of law enforcement statistics should take place.

Our review and analyses indicate that it is entirely feasible to launch a research program to develop a national series on law enforcement administration/management statistics. We believe that a 12-18 month research effort would produce the information needed to finalize the design of such a series. The Institute of Criminal Justice

APPENDICES

APPENDIX A

BUREAU OF MUNICIPAL RESEARCH (1929 STUDY)

LARGER CITIES (114,000 - 5,900,000 : 1928)

New York	Chicago	Philadelphia
Detroit	Cleveland	St. Louis
Baltimore	Boston	Los Angeles
Pittsburgh	San Francisco	Buffalo
Washington, DC	Milwaukee	Newark
Minneapolis	New Orleans	Cincinnati
Kansas City, MO	Seattle	Indianapolis
Rochester	Jersey City	Akron
Toledo	Portland, OR	Columbus
St. Paul	Syracuse	Dayton
Des Moines	Trenton	Fall River
Wilmington	New Bedford	Duluth

SMALLER CITIES (30,000 to 105,000)

Knoxville	Schenectady	Sioux City
Winston-Salem	Portland, ME	Sacramento

**APPENDIX A**

**SMALLER CITIES (cont'd)**

Racine	Chester	Springfield, OH
Lincoln	Berkeley	Niagara Falls
Quincy	Pasadena	Pontiac
Lancaster	Cedar Rapids	Oak Park
Kenosha	Atlantic City	Mount Vernon, NY
Columbia	Madison	Elmira
Bay City	New Rochelle	Jamestown, NY
Brookline	San Jose	Austin
Hamilton	Stamford	Rock Island
Dubuque	Wilmington, NC	Lynchburg
Waterloo	Moline	Sheboygan
Oshkosh	Superior	La Crosse

**APPENDIX B**

**OSTROM VARIABLE DESCRIPTION LIST**

## VARIABLE DESCRIPTION LIST

VAR.  
NO.

### \*\*POLICE PRODUCERS\*\*

1 ISPSR STUDY NUMBER 7427  
2 SMSA CODE  
3 PRODUCER ID  
4 RECORD TYPE

#### GEOGRAPHICAL INFORMATION

5 IN OR OUT OF X-MET DATA BASE  
6 FIRST STATE IN WHICH SMSA IS LOCATED  
7 SECOND STATE IN WHICH SMSA IS LOCATED  
8 THIRD STATE IN WHICH SMSA IS LOCATED  
9 FIRST COUNTY CONTAINED IN THE JURISDICTION INVOLVED  
10 THIRD COUNTY CONTAINED IN THE JURISDICTION INVOLVED  
11 FOURTH COUNTY CONTAINED IN THE JURISDICTION INVOLVED  
12 TYPE OF PRODUCER UNIT  
13 IS PRODUCER IN CENTRAL COUNTY OR NOT  
14 RANDOM ORDER OF SMSA'S WITHIN EACH LEAA REGION  
15 TYPE OF SMSA  
16 TYPE OF PLACE  
17 CENSUS BUREAU CODE  
18 IS PRODUCER LOCATED IN SMSA OR ELSEWHERE?  
19 LEAA REGION NUMBER  
20 NAME OF UNIT  
21 100% POPULATION COUNT FROM MEDLIST  
22 FIRST MINOR CIVIL DIVISION (MD) OR CENSUS CIVIL DIVI-  
23 SION (CCD) INCLUDED IN PLACE  
24 POPULATION OF FIRST MINOR CIVIL DIVISION (MD) OR CEN-  
25 SUS CIVIL DIVISION (CCD)  
26 SECOND MD OR CCD INCLUDED IN PLACE  
27 POPULATION OF SECOND MD OR CCD  
28 THIRD MD OR CCD INCLUDED IN PLACE  
29 POPULATION OF THIRD MD OR CCD  
30 FOURTH MD OR CCD INCLUDED IN PLACE  
31 FIFTH MD OR CCD INCLUDED IN PLACE  
32 POPULATION OF FIFTH MD OR CCD  
33 SIXTH MD OR CCD INCLUDED IN PLACE  
34 POPULATION OF SIXTH MD OR CCD  
35 SEVENTH MD OR CCD INCLUDED IN PLACE  
36 POPULATION OF SEVENTH MD OR CCD  
37 EIGHT MD OR CCD INCLUDED IN PLACE  
38 POPULATION OF EIGHTH MD OR CCD

#### INTERVIEW INFORMATION

39 INTERVIEWER ID NUMBER  
40 MONTH, DAY, AND YEAR OF INTERVIEW  
41 LENGTH OF INTERVIEW IN MINUTES  
42 DESCRIPTION OF RESPONDENT'S ATTITUDE  
43 WERE THE RESPONSES CAUTIOUS  
44 TYPE OF INTERVIEW  
45 TITLE OF PERSON INTERVIEWED

#### VARIABLE DESCRIPTION LIST

VAR.  
NO.

#### ORGANIZATIONAL STRUCTURE OF DEPARTMENT

46 NUMBER OF FULL-TIME SWORN OFFICERS  
47 NUMBER OF FULL-TIME CIVILIANS  
48 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
PATROL DUTIES  
49 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON PATROL  
50 NUMBER OF CIVILIANS ASSIGNED TO PARTOL DUTIES  
51 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
TRAFFIC DUTIES  
52 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON TRAFFIC DUTY  
53 NUMBER OF CIVILIANS ASSIGNED TO TRAFFIC DUTIES  
54 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
CRIMINAL INVESTIGATION  
55 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON CRIMINAL INVESTIGATION  
56 NUMBER OF CIVILIANS ASSIGNED TO CRIMINAL INVESTIGATION  
57 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
JUVENILE RELATED DUTIES  
58 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN

59 PATROLMAN ON JUVENILE RELATED DUTY  
NUMBER OF CIVILIANS ASSIGNED TO JUVENILE RELATED  
DUTIES  
60 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
DISPATCHING  
61 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN DISPATCHING  
62 NUMBER OF CIVILIANS ASSIGNED TO DISPATCHING  
63 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
CRIME LAB DUTIES  
64 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN WITH CRIME LAB DUTY  
65 NUMBER OF CIVILIANS ASSIGNED TO CRIME LAB DUTIES  
66 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
JAIL DUTIES  
67 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN WITH JAIL DUTY  
68 NUMBER OF CIVILIANS ASSIGNED TO JAIL DUTIES  
69 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
TRAINING  
70 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON TRAINING  
71 NUMBER OF CIVILIANS ASSIGNED TO TRAINING  
72 NUMBER OF FULL-TIME PERSONNEL CURRENTLY ASSIGNED TO  
OTHER DIVISIONS  
73 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN IN OTHER DIVISIONS  
74 NUMBER OF CIVILIANS ASSIGNED TO OTHER DIVISIONS

#### VARIABLE DESCRIPTION LIST

VAR.  
NO.

75 AS OF DECEMBER, 1973, NUMBER OF FULL-TIME SWORN  
OFFICERS  
76 NUMBER OF FULL-TIME CIVILIANS  
77 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO PATROL  
DUTIES  
78 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON PATROL  
79 NUMBER OF CIVILIANS ASSIGNED TO PATROL DUTIES  
80 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO TRAFFIC  
DUTIES  
81 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON TRAFFIC DUTY  
82 NUMBER OF CIVILIANS ASSIGNED TO TRAFFIC DUTIES  
83 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO CRIMINAL  
INVESTIGATION  
84 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON CRIMINAL INVESTIGATION  
85 NUMBER OF CIVILIANS ASSIGNED TO CRIMINAL INVESTIGATION  
86 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO JUVENILE  
RELATED DUTIES  
87 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON JUVENILE RELATED DUTIES  
88 NUMBER OF CIVILIANS ASSIGNED TO JUVENILE RELATED  
DUTIES  
89 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO DISPATCHING  
90 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON DISPATCHING  
91 NUMBER OF CIVILIANS ASSIGNED TO DISPATCHING  
92 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO CRIME LAB  
DUTIES  
93 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN WITH CRIME LAB  
94 NUMBER OF CIVILIANS ASSIGNED TO CRIME LAB DUTIES  
95 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO JAIL DUTIES  
96 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN WITH JAIL DUTY  
97 NUMBER OF CIVILIANS ASSIGNED TO JAIL DUTIES  
98 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO TRAINING  
99 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN  
PATROLMAN ON TRAINING  
100 NUMBER OF CIVILIANS ASSIGNED TO TRAINING  
101 NUMBER OF FULL-TIME PERSONNEL ASSIGNED TO OTHER

DIVISIONS  
 102 NUMBER OF FULL-TIME PERSONNEL WITH RANK HIGHER THAN PATROLMAN IN OTHER DIVISIONS  
 103 NUMBER OF CIVILIANS ASSIGNED TO OTHER DIVISIONS

VARIABLE DESCRIPTION LIST

VAR.  
NO.

NUMBER OF OFFICERS IN DEPARTMENT BY RANK

104 DEPUTY OR ASSISTANT CHIEF  
 105 COLONEL  
 106 LIEUTENANT COLONEL  
 107 MAJOR  
 108 CAPTAIN  
 109 LIEUTENANT  
 110 SERGEANT  
 111 DETECTIVE (FORMAL RANK ONLY)  
 112 CORPORAL  
 113 PATROLMAN  
 114 CADET  
 115 NUMBER OF PART-TIME PAID OFFICERS  
 116 AVERAGE NUMBER OF HOURS PER MONTH FOR PART-TIME OFFICER  
 117 PART-TIME OFFICER'S HOURLY PAY RATE  
 118 NUMBER OF PART-TIME VOLUNTARY OFFICERS  
 119 AVERAGE NUMBER OF HOURS PER MONTH FOR PART-TIME VOLUNTARY OFFICERS  
 120 COMPENSATION FOR VOLUNTEER OFFICERS  
 121 PART-TIME CIVILIAN PERSONNEL

122 SOURCE OF MANPOWER DATA FOR 1973  
 123 SOURCE OF CURRENT MANPOWER DATA

PRECINCTS AND AUTOS

124 DOES DEPARTMENT HAVE PRECINCT STATIONS, SUBSTATIONS OR DISTRICT HEADQUARTERS  
 125 NUMBER OF PRECINCT STATIONS  
 126 NUMBER OF AUTOMOBILES OWNED BY DEPARTMENT

COLLECTIVE BARGAINING

127 IS THERE A COLLECTIVE BARGAINING ASSOCIATION  
 128 WHAT DOES IT BARGAIN FOR  
 129 PERCENT OF AGENCY'S OFFICERS WHO ARE MEMBERS OF 'A' ASSOCIATION  
 130 PERCENT OF AGENCY'S OFFICERS WHO ARE MEMBERS OF 'B' ASSOCIATION  
 131 PERCENT OF AGENCY'S OFFICERS WHO ARE MEMBERS OF 'C' ASSOCIATION  
 132 DOES LOCAL ASSOCIATION REPRESENT OTHER POLICE AGENCIES IN AREA

VARIABLE DESCRIPTION LIST

VAR.  
NO.

ELIGIBILITY REQUIREMENTS AND INCENTIVES

133 IS THERE A RESIDENCY REQUIREMENT  
 134 IS IT STRICTLY ENFORCED  
 135 RESIDENCY REQUIRED PRIOR TO EMPLOYMENT  
 136 ARE THERE DEPARTMENTAL INCENTIVES FOR RESIDENCY  
 137 IS DEPARTMENTAL HIRING CONDUCTED UNDER CIVIL SERVICE  
 138 IS THIS A STATE, A COUNTY-WIDE OR A LOCAL PROGRAM  
 139 ARE PROMOTIONS WITHIN THE DEPARTMENT BASED ON CIVIL SERVICE  
 140 IS THIS A STATE, A COUNTY-WIDE OR A LOCAL PROGRAM  
 141 FORMAL EDUCATION REQUIREMENT  
 142 ADDITIONAL EDUCATION REQUIREMENT FOR SUPERVISORY RANKS  
 143 DEPARTMENTAL INCENTIVES FOR FURTHER EDUCATION  
 144 PAY FOR TIME OFF AS INCENTIVE  
 145 SALARY DIFFERENTIAL FOR EDUCATIONAL DEGREE

146 AMOUNT OF SALARY DIFFERENTIAL IN DOLLARS PER YEAR  
 147 SALARY DIFFERENTIAL PER CREDIT HOUR  
 148 SALARY DIFFERENTIAL IN DOLLARS PER YEAR  
 149 DOES DEPARTMENT PAY TUITION  
 150 DOES DEPARTMENT PAY FOR BOOKS  
 151 LOCAL FUNDS PAY FOR INCENTIVES  
 152 STATE APPROPRIATIONS PAY FOR INCENTIVES  
 153 FEDERAL GRANTS PAY FOR INCENTIVES  
 154 OTHER MONIES PAY FOR INCENTIVES

SALARY

155 NUMBER OF HOURS IN OFFICERS' LEGAL WORKWEEK  
 156 HOW ARE PATROLMEN COMPENSATED FOR OVERTIME WORK  
 157 NUMBER OF HOURS OF OVERTIME  
 158 BEGINNING SALARY FOR PATROLMAN -- DECEMBER, 1973  
 159 CURRENT BEGINNING SALARY FOR PATROLMAN  
 160 TOP SALARY EARNED BY PATROLMAN -- DECEMBER, 1973  
 161 CURRENT TOP SALARY FOR PATROLMAN  
 162 HIGHEST SALARY -- DECEMBER, 1973  
 163 CURRENT HIGHEST SALARY

164 POSITION OF CHIEF ELECTED, APPOINTED OR CIVIL SERVICE  
 165 CHIEF OF POLICE FULL-TIME OR PART-TIME

VARIABLE DESCRIPTION LIST

VAR.  
NO.

TRAINING

166 MUST RECRUITS HAVE MINIMUM NUMBER OF HOURS OF TRAINING  
 167 HOW MANY HOURS  
 168 HOW SOON MUST RECRUIT COMPLETE THIS TRAINING  
 169 ANY OFFICERS WHO HAVE NOT NEEDED ENTRY LEVEL TRAINING  
 170 RECRUITS RECEIVE ENTRY LEVEL TRAINING ON THE JOB  
 171 RECRUITS RECEIVE ENTRY LEVEL TRAINING IN DEPARTMENT'S OWN ACADEMY  
 172 RECRUITS RECEIVE ENTRY LEVEL TRAINING IN ANOTHER DEPARTMENT'S ACADEMY  
 173 RECRUITS RECEIVE ENTRY LEVEL TRAINING IN REGIONAL ACADEMY  
 174 RECRUITS RECEIVE ENTRY LEVEL TRAINING IN STATE ACADEMY  
 175 RECRUITS RECEIVE ENTRY LEVEL TRAINING IN PRIVATE ACADEMY  
 176 RECRUITS RECEIVE ENTRY LEVEL TRAINING IN COMMUNITY COLLEGE OR UNIVERSITY  
 177 RECRUITS RECEIVE ENTRY LEVEL TRAINING IN ANOTHER TRAINING INSTITUTION  
 178 DOES DEPARTMENT PROVIDE ENTRY LEVEL TRAINING FOR OTHER DEPARTMENTS

179 DEPARTMENT TRAINS OTHERS TO QUALIFY FOR STATE OR FEDERAL GRANT  
 180 DEPARTMENT TRAINS OTHERS TO SATISFY A MANDATED REQUIREMENT OF THE STATE  
 181 DEPARTMENT TRAINS OTHERS IN RESPONSE TO REQUESTS OF OTHER POLICE AGENCIES  
 182 DEPARTMENT TRAINS OTHERS FOR OTHER REASONS  
 183 AREA DEPARTMENTS COORDINATE ENTRY LEVEL TRAINING  
 184 DEPARTMENT SENDS OFFICERS ELSEWHERE FOR TRAINING TO QUALIFY FOR STATE OR FEDERAL GRANT  
 185 DEPARTMENT SENDS OFFICERS ELSEWHERE FOR TRAINING TO SATISFY A MANDATED REQUIREMENT OF THE STATE  
 186 DEPARTMENT SENDS OFFICERS ELSEWHERE FOR TRAINING TO OBTAIN TRAINING NOT AVAILABLE HERE  
 187 DEPARTMENT SENDS OFFICERS ELSEWHERE FOR TRAINING FOR OTHER REASONS

### VARIABLE DESCRIPTION LIST

VAR.  
NO.

#### TRAFFIC CONTROL

- 188 DOES DEPARTMENT PROVIDE TRAFFIC CONTROL
- 189 PART OF GENERAL PATROL OR SPECIALIZED TRAFFIC PATROL
- 190 PROVIDE TRAFFIC PATROL IN AREAS OUTSIDE JURISDICTION
- 191 DEPARTMENT INVESTIGATE ACCIDENTS
- 192 DEPARTMENT PROVIDE PATROL SERVICES ON 24-HOUR BASIS
- 193 DO ANY PUBLIC OR PRIVATE AGENCIES PROVIDE PATROL SERVICE IN THIS JURISDICTION
- 194 STARTING TIME FOR PATROL
- 195 ENDING TIME FOR PATROL
- 196 STARTING TIME (IF SECOND TIME PERIOD)
- 197 ENDING TIME (IF SECOND TIME PERIOD)
- 198 NUMBER OF CARS ON PATROL AT 10:00 A.M. ON A WEEKDAY
- 199 NUMBER OF TWO-MAN PATROL CARS
- 200 NUMBER OF MEN ON FOOT AT THIS TIME
- 201 NUMBER OF CARS ON PATROL AT 10:00 P.M. ON A WEEKDAY NIGHT
- 202 NUMBER OF TWO-MAN PATROL CARS
- 203 NUMBER OF MEN ON FOOT AT THIS TIME
- 204 PEAK PATROL ON MONDAY
- 205 PEAK PATROL ON TUESDAY
- 206 PEAK PATROL ON WEDNESDAY
- 207 PEAK PATROL ON THURSDAY
- 208 PEAK PATROL ON FRIDAY
- 209 PEAK PATROL ON SATURDAY
- 210 PEAK PATROL ON SUNDAY
- 211 STARTING TIME FOR PEAK PATROL
- 212 ENDING TIME FOR PEAK PATROL
- 213 HOW MANY CARS WOULD BE ON PATROL
- 214 HOW MANY WOULD BE TWO-MAN PATROL CARS
- 215 HOW MANY MEN WOULD BE ON FOOT
- 216 SPECIAL CONDITIONS WHICH INFLUENCE THE WORKLOAD

#### VARIABLE DESCRIPTION LIST

VAR.  
NO.

#### CRIMINAL INVESTIGATION

- 217 PATROLMAN INVESTIGATE BURGLARY
- 218 PATROLMAN INVESTIGATE HOMICIDE
- 219 IS THERE A NARCOTICS TASK FORCE IN THE AREA
- 220 INVESTIGATIVE SPECIALISTS MEET
- 221 DOES DEPARTMENT MAINTAIN A CRIME LAB

#### DETENTION AND DETOXIFICATION FACILITIES

- 222 JAIL CAPACITY
- 223 IS THERE A DETOXIFICATION CENTER FOR ALCOHOLICS
- 224 DO YOU USE THIS FACILITY
- 225 IS THIS PART OF AN ORGANIZED AREA-WIDE ALCOHOLIC TREATMENT CENTER

#### DISPATCHING

- 226 DO YOU SHARE THE SERVICES OF YOUR DISPATCHER
- 227 IS THERE A WRITTEN PROCEDURE THAT YOUR DISPATCHERS USE
- 228 DOES DEPARTMENT HANDLE NON-CRIMINAL ASSISTANCE CALLS
- 229 IS RADIO FREQUENCY SHARED
- 230 DO YOU HAVE AN ALTERNATE FREQUENCY WHICH YOU SHARE
- 231 DOES AGENCY MONITOR OTHER DEPARTMENTS FREQUENCY
- 232 MONITOR LOCATED ON DISPATCHER'S DESK
- 233 MONITOR LOCATED IN CHIEF'S OFFICE
- 234 MONITOR LOCATED IN A SPECIFIC PATROL CAR OR CARS

- 235 MONITOR LOCATED IN ALL PATROL CARS
- 236 MONITOR LOCATED IN OTHER LOCATIONS
- 237 IS THERE A COMPUTERIZED INFORMATION CENTER
- 238 IS THERE A SPECIAL EMERGENCY NUMBER
- 239 IS THIS AN AREA-WIDE SYSTEM
- 240 ARE THERE SERIOUS COMMUNICATIONS DELAYS WHEN USING THIS SYSTEM

#### EMERGENCY SERVICES

- 241 ARE EMERGENCY AMBULANCE SERVICES PROVIDED BY THIS POLICE AGENCY
- 242 ARE EMERGENCY AMBULANCE SERVICES PROVIDED BY FIRE DEPARTMENT
- 243 ARE EMERGENCY AMBULANCE SERVICES PROVIDED BY VOLUNTEER AMBULANCE CREW
- 244 ARE EMERGENCY AMBULANCE SERVICES PROVIDED BY PRIVATE AMBULANCE COMPANY
- 245 ARE EMERGENCY AMBULANCE SERVICES PROVIDED BY FUNERAL HOME
- 246 ARE EMERGENCY AMBULANCE SERVICES PROVIDED BY OTHER
- 247 DO YOU EVER PROVIDE EMERGENCY SERVICE TO OTHER AREAS
- 248 WOULD YOU SEND A PATROL CAR TO EMERGENCY MEDICAL SITUATION
- 249 WOULD YOU DISPATCH A PATROL CAR TO TAKE AN EMERGENCY MEDICAL CASE TO THE HOSPITAL

#### VARIABLE DESCRIPTION LIST

VAR.  
NO.

#### MISCELLANEOUS SERVICES

- 250 DOES AGENCY PROVIDE SCHOOL CROSSING GUARDS
- 251 DOES AGENCY PROVIDE CORONER SERVICES
- 252 DOES AGENCY PROVIDE CIVIL PROCESS SERVING
- 253 DOES AGENCY PROVIDE PARKING METER COLLECTION
- 254 DOES AGENCY PROVIDE GUARDS IN THE LOCAL SCHOOLS
- 255 DOES AGENCY PROVIDE GUARDS FOR PUBLIC FACILITIES
- 256 DOES AGENCY PROVIDE GUARDS FOR PUBLIC HOUSING
- 257 DOES AGENCY PROVIDE ARSON SQUAD
- 258 DOES AGENCY PROVIDE ANIMAL ROUNDUP OR RABIES UNITS
- 259 DO OTHER AGENCIES PROVIDE SCHOOL CROSSING GUARDS
- 260 DO OTHER AGENCIES PROVIDE CORONER SERVICES
- 261 DO OTHER AGENCIES PROVIDE CIVIL PROCESS SERVING
- 262 DO OTHER AGENCIES PROVIDE PARKING METER COLLECTION
- 263 DO OTHER AGENCIES PROVIDE GUARDS IN THE LOCAL SCHOOLS
- 264 DO OTHER AGENCIES PROVIDE GUARDS FOR PUBLIC FACILITIES
- 265 DO OTHER AGENCIES PROVIDE GUARDS FOR PUBLIC HOUSING
- 266 DO OTHER AGENCIES PROVIDE ARSON SQUAD
- 267 DO OTHER AGENCIES PROVIDE ANIMAL ROUNDUP OR RABIES UNITS

#### COOPERATIVE ARRANGEMENTS

- 268 DO LOCAL CHIEFS MEET REGULARLY TO DISCUSS LAW ENFORCEMENT
- 269 HAS YOUR DEPARTMENT PURCHASED ANY EQUIPMENT WITH ANOTHER AGENCY
- 270 PROPORTION OF DEPARTMENT'S VEHICLES PURCHASED JOINTLY
- 271 PROPORTION OF DEPARTMENT'S GASOLINE PURCHASED JOINTLY
- 272 PROPORTION OF DEPARTMENT'S COMMUNICATIONS PURCHASED JOINTLY
- 273 PROPORTION OF OTHER PURCHASES PURCHASED JOINTLY
- 274 ARE ANY OFFICERS DEPUTIZED BY OTHER POLICE AGENCY
- 275 HAS THIS DEPARTMENT DEPUTIZED POLICE OFFICERS FROM ANY OTHER POLICE AGENCY
- 276 DOES YOUR DEPARTMENT BORROW OR LEND EQUIPMENT OR FACILITIES
- 277 ARE YOU PRIMARILY A BORROWER OR A LENDER
- 278 DO YOUR OFFICERS EVER AID OTHER DEPARTMENTS
- 279 DO THEY GO ONLY IN RESPONSE TO A FORMAL REQUEST

280 DO OFFICERS FROM OTHER DEPARTMENTS AID YOUR FORCE  
281 DO THEY COME ONLY IN RESPONSE TO A REQUEST FOR AID  
282 ARE THERE TIMES WHEN MUTUAL AID NEEDED BUT NOT  
    AVAILABLE  
283 DOES DEPARTMENT HAVE MUTUAL AID AGREEMENTS

VARIABLE DESCRIPTION LIST

VAR.  
NO.

FINANCIAL INFORMATION

284 BEGINNING OF BOOKKEEPING YEAR  
285 END OF BOOKKEEPING YEAR  
286 TOTAL EXPENDITURES FOR POLICE AGENCY - 1973  
287 TOTAL EXPENDITURES FOR SALARIES AND WAGES OF ALL  
    PERSONNEL - 1973  
288 TOTAL EXPENDITURES FOR SALARIES AND WAGES FOR SWORN  
    OFFICERS - 1974  
289 ARE EMPLOYEES COVERED BY SOCIAL SECURITY  
290 EMPLOYER CONTRIBUTION TO SOCIAL SECURITY  
291 ARE EMPLOYEES ENROLLED IN PENSIONS PROGRAM  
292 EMPLOYER CONTRIBUTION TO RETIRED OFFICERS PENSION FUND  
293 EMPLOYER CONTRIBUTION TO ACTIVE OFFICERS PENSION FUND  
294 ARE EMPLOYEES COVERED BY OTHER BENEFITS  
295 EMPLOYER CONTRIBUTION TO EMPLOYEE BENEFITS  
296 TOTAL EXPENDITURES MADE WITH FEDERAL REVENUE SHARING  
    FUNDS  
297 SALARY AND WAGE EXPENDITURES MADE WITH FEDERAL REVENUE  
    SHARING FUNDS  
298 ARE WAGE AND SALARY EXPENDITURES MADE WITH FEDERAL  
    REVENUE SHARING FUNDS INCLUDED IN TOTAL EXPENDITURES  
    FOR SALARIES AND WAGES OF ALL PERSONNEL - 1973  
299 TOTAL EXPENDITURES MADE WITH FEDERAL GRANTS  
300 SALARY AND WAGE EXPENDITURES MADE WITH FEDERAL GRANTS  
301 ARE SALARY AND WAGE EXPENDITURES MADE WITH FEDERAL  
    GRANTS INCLUDED IN TOTAL EXPENDITURES FOR SALARIES  
    AND WAGES OF ALL PERSONNEL - 1973  
302 TOTAL EXPENDITURES MADE WITH STATE GRANTS  
303 SALARY AND WAGE EXPENDITURES MADE WITH STATE GRANTS  
304 ARE SALARY AND WAGE EXPENDITURES MADE WITH STATE  
    GRANTS INCLUDED IN TOTAL EXPENDITURES FOR SALARIES  
    AND WAGES OF ALL PERSONNEL - 1973  
305 TOTAL EXPENDITURES MADE WITH OTHER GRANTS  
306 SALARY AND WAGE EXPENDITURES MADE WITH OTHER GRANTS  
307 ARE SALARY AND WAGE EXPENDITURES MADE WITH OTHER  
    GRANTS INCLUDED IN TOTAL EXPENDITURES FOR SALARIES  
    AND WAGES OF ALL PERSONNEL - 1973  
308 IS PRINCIPAL SOURCE OF REVENUE GENERAL FUND  
309 IS PRINCIPAL SOURCE OF REVENUE LOCAL TAX FOR LAW  
    ENFORCEMENT  
310 IS PRINCIPAL SOURCE OF REVENUE STATE TAX FOR LAW  
    ENFORCEMENT  
311 IS PRINCIPAL SOURCE OF REVENUE CONTRACTS  
312 IS PRINCIPAL SOURCE OF REVENUE FEES AND FINES  
313 IS PRINCIPAL SOURCE OF REVENUE SOME OTHER PROPERTY TAX

VARIABLE DESCRIPTION LIST

VAR.  
NO.

FINANCIAL INFORMATION  
(CONTINUED)

314 SOURCE FOR GENERAL FUND: LOCAL REAL PROPERTY TAX  
315 SOURCE FOR GENERAL FUND: LOCAL OTHER PROPERTY TAX  
316 SOURCE FOR GENERAL FUND: LOCAL SALES TAX  
317 SOURCE FOR GENERAL FUND: LOCAL INCOME TAX  
318 SOURCE FOR GENERAL FUND: STATE DISTRIBUTED TAX  
319 SOURCE FOR GENERAL FUND: OTHER  
320 ARE THERE LEGAL LIMITS ON ABILITY TO INCREASE REVENUE  
321 IS AGENCY AT LEGAL LIMIT ON 12/73

SERVICES SUMMARY

322 SERVICE 87 -- ENTRY LEVEL TRAINING  
323 SERVICE 86 -- ENTRY LEVEL TRAINING  
324 SERVICE 99 -- TRAFFIC PATROL  
325 SERVICE 98 -- TRAFFIC PATROL  
326 SERVICE 97 -- TRAFFIC INVESTIGATION  
327 SERVICE 96 -- TRAFFIC INVESTIGATION  
328 SERVICE 95 -- PATROL  
329 SERVICE 94 -- PATROL  
330 SERVICE 91 -- CRIMINAL INVESTIGATION: BURGLARY  
331 SERVICE 90 -- CRIMINAL INVESTIGATION: BURGLARY  
332 SERVICE 93 -- CRIMINAL INVESTIGATION: HOMICIDE  
333 SERVICE 92 -- CRIMINAL INVESTIGATION: HOMICIDE  
334 SERVICE 85 -- NARCOTICS  
335 SERVICE 84 -- NARCOTICS  
336 SERVICE 83 -- CRIME LAB: CHEMICAL  
337 SERVICE 82 -- CRIME LAB: CHEMICAL  
338 SERVICE 81 -- DETENTION  
339 SERVICE 80 -- DETENTION  
340 SERVICE 89 -- DISPATCHING  
341 SERVICE 88 -- DISPATCHING  
342 INFORMATION OBTAINED FROM INTERVIEWS WITH PRODUCER  
343 INFORMATION OBTAINED FROM INTERVIEWS WITH OTHER  
    PRODUCERS  
344 WAS INFORMATION OBTAINED FROM DOCUMENTS  
345 ISPSR STUDY EDITION

TO: EXECUTIVE BOARD, IA. ASSN. OF CHIEFS OF POLICE AND PEACE OFFICERS, INC.  
 FROM: MARCIA COHAN, STATISTICAL ANALYSIS CENTER (SAC), O.P.P.  
 SUBJECT: EVALUATION OF SAC REPORTS ON IOWA POLICE DEPARTMENTS  
 DATE: APRIL 14, 1984

Comments were received from 133 police chiefs regarding the FY 1984 Reports on Iowa Police Departments (Volumes I and II). Of the 67 departments cited in Volume I, 55 (82%) provided feedback. Another 78 (57%) of the 137 agencies in Volume II also gave their opinions about the reports. The following is a brief summary of their responses.

APPENDIX C

EVALUATION OF SAC REPORTS

<u>GENERAL REACTION TO SAC REPORTS</u>	(VOL. I)	(VOL. II)	<u>TOTAL</u>
	Larger Cities	Smaller Cities	
Extremely Favorable.....	44 (80%)	55 (71%)	99 (75%)
Somewhat Favorable.....	9 (16%)	20 (26%)	29 (22%)
Neutral.....	2 (4%)	2 (3%)	4 (.3%)
Somewhat Unfavorable.....	0 -	0 -	0 -
Extremely Unfavorable.....	0 -	0 -	0 -
<u>TOTAL</u> .....	55	77	132

POTENTIALLY USE INFORMATION IN CURRENT REPORTS

	Larger Cities	Smaller Cities	<u>TOTAL</u>
Yes, to a Great Extent.....	29 (53%)	42 (54%)	71 (54%)
Yes, Somewhat.....	26 (47%)	33 (42%)	59 (44%)
No.....	0 -	3 (4%)	3 (2%)
<u>TOTAL</u> .....	55	78	133

ALREADY USE INFORMATION IN PREVIOUS REPORTS

	Larger Cities	Smaller Cities	<u>TOTAL</u>
Yes, to a Great Extent.....	24 (44%)	26 (35%)	50 (39%)
Yes, Somewhat.....	30 (54%)	39 (53%)	69 (53%)
No.....	1 (2%)	9 (12%)	10 (8%)
<u>TOTAL</u> .....	55	74	129

INFORMATION IN REPORTS IS COMPLETELY COVERED  
TO YOUR SATISFACTION

	Larger Cities	Smaller Cities	<u>TOTAL</u>
Yes.....	53 (98%)	71 (95%)	124 (96%)
No.....	1 (2%)	4 (5%)	5 (4%)
<u>TOTAL</u> .....	54	75	129

FISCAL YEAR REPORTS OF IOWA POLICE DEPARTMENTS

EVALUATION FORM

As you may recall, the Iowa Association of Chiefs of Police and Peace Officers, Inc. in cooperation with the Iowa Statistical Analysis Center, have been surveying all police departments throughout the state on a yearly basis (since 1979). The results of these efforts--data collected regarding salaries, benefits, budgets, manpower, etc. --are published in fiscal year reports which, in turn, are distributed to all police chiefs participating in the survey. (The FY '84 report is attached for your review.)

To assist us in evaluating the quality of these reports, please complete this very brief questionnaire. Your comments will help us in releasing future publications.

-----  
APPENDIX D

FORUM ADMINISTRATIVE QUESTIONNAIRE

1. What is your general reaction to these reports?
  - a. Extremely Favorable
  - b. Somewhat Favorable
  - c. Neutral
  - d. Somewhat Unfavorable
  - e. Extremely Unfavorable
  
2. Are you in a position to potentially use information contained in these reports?
  - a. Yes, to a great extent
  - b. Yes, somewhat
  - c. No (Skip to Q. 4)
  
3. If YES (to Q. 2), have you already used information contained in past reports?
  - a. Yes, frequently
  - b. Yes, somewhat
  - c. No
  
4. In your opinion, is the information contained in these reports covered completely?
  - a. Yes
  - b. No
  
5. If there are other topics which you would like to see addressed in future reports, please indicate below.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Name of Chief of Police)

(Police Department) -

## FORUM ADMINISTRATIVE QUESTIONNAIRE

This questionnaire should be completed by the executive head of the agency or completed by the manager(s) within the agency most familiar with its record systems and procedures, then reviewed by the agency head prior to his endorsement and submission to the Forum.

AGENCY NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NAME OF THE PERSON  
COMPLETING THE  
QUESTIONNAIRE: \_\_\_\_\_

TELEPHONE NUMBER OF THE  
PERSON COMPLETING THE  
QUESTIONNAIRE: A.C. ( ), # \_\_\_\_\_

ENDORSEMENT OF THE  
CHIEF EXECUTIVE: \_\_\_\_\_

(Signature)

(Printed name and title)

(Date)

The survey is designed to answer three questions about police administrative, and operational information. The first question is one of utility; that is, how useful or important is it that you have comparative, up-to-date information on the practices of agencies similar to your own. The second question is how easy or difficult it is for your agency to provide the information in the requested categories or format. The third question concerns the availability of the same or similar information from sources other than the Kansas City/Police Executive Research Forum/Police Foundation reports. On the right-hand side of each page of the questionnaire are 10 columns, 4 for each of the first two questions and 2 for the last question. The definitions for the coded responses are as follows:

A. For the question of utility, the responses are:

"HIGH" (check column 1) - This item is of direct and immediate use to this agency.  
"MEDIUM" (check column 2) - This item is useful, but not critical, to this agency.  
"LOW" (check column 3) - This item is not regularly used.  
"NONE" (check column 4) - This item is not used at all by this agency.

B. For the question on availability within your agency, the coded responses are:

"AVAILABLE" (check column 5) - This item is readily available in current departmental records and documents.  
"MODIFICATION" (check column 6) - This item is available with some modification (i.e., retotalling or retitling some elements).  
"DIFFICULT" (check column 7) - This item requires extensive analysis or addition of new data collection to prepare.  
"NOT AVAILABLE" (check column 8) - The information base for this item does not exist in current agency records.

C. For the question on alternative sources of similar information about agencies similar to yours.

"OTHER" - This item is readily available from other alternative sources.  
"UNIQUE" - This item is only available through the Kansas City/Police Executive Research Forum/Police Foundation Administrative Report series.

For each item in each of the areas, please place a check mark (✓) in the appropriate column that most nearly reflects your agencies views on the A) utility, B) availability, and C) alternative sources for the same information. If the same information is available from another source, please indicate the title and source agency on the comments page.

Additionally, feel free to comment on any element and reference your observations on the comment page by item number.

## BUDGET AND ASSIGNMENT

1. Total police department budget for last fiscal year excluding any federal, state, or private funds.
  2. Police department salary budget for last fiscal year.
  3. Overtime hours worked by all employees last fiscal year, court-related overtime, other overtime, total overtime.
  4. Number of police stations or substations including headquarters.
  5. Number of regular duty hours worked by each officer each week.
  6. Total number of regular one officer and two officer motor beats per shift.
  7. Total number of regular one officer and two officer foot beats per shift.
  8. Patrol bureau deployment of personnel. Number of personnel by rank and shift.
  9. Number of accident investigation personnel per shift.
  10. Number of mobile evidence technicians per shift.
  11. Number of traffic enforcement personnel: sworn/civilian; solo motorcycles, 3-wheel motorcycles, scooters, radar.
  12. Number of investigations personnel, headquarters/decentralized, vice, intelligence, hit and run, burglary, robbery, sex crimes, homicides, other.

13. Distribution of all departmental personnel by unit and rank/ title.
  14. Distribution of all departmental personnel by rank/title, sex, and race/ethnicity.
  15. Does your department utilize rotation of patrol shifts?
  16. What type of rotation is used? Fixed, weekly, monthly, quarterly, other.
  17. How is an officer selected for his shift? Officer's choice, department assignment, seniority, other.

\* CALLS FOR SERVICE

  18. How many citizen calls did you receive by telephone last year?
  19. Of those calls, how many were calls for service that were responded to by the dispatch of one or more police units?
  20. How many were calls for service that were handled by some other method than the dispatch of a unit, that is, by telephone report-taking, by mail-in reports, or by requiring citizens to come to a police station?
  21. How many were calls for information only?
  22. Does your department have a screening procedure whereby cases with a low probability of solution are closed? If yes, what kinds of offenses are screened?

## ~~CALLS FOR SERVICE~~

18. How many citizen calls did you receive by telephone last year?
  19. Of those calls, how many were calls for service that were responded to by the dispatch of one or more police units?
  20. How many were calls for service that were handled by some other method than the dispatch of a unit, that is, by telephone report-taking, by mail-in reports, or by requiring citizens to come to a police station?
  21. How many were calls for information only?
  22. Does your department have a screening procedure whereby cases with a low probability of solution are closed? If yes, what kinds of offenses are screened?

## \*COMPUTER OPERATIONS

23. Which of the following best describes the use of computers in your department, i.e., none, dedicated, shared, shared and dedicated?
  24. What functional operations are part of the computer's systems, i.e., arrests, wants and warrants, payroll, etc?
  25. Does your department have an operating computer aided dispatch system?
  26. If no, are you in the process of implementing such a system?
  27. Does your department have an operational 911 emergency telephone

VEHICLE FLEET

28. Police vehicles:

  - a. Number and make of motorcycles.
  - b. Number and make of scooters.
  - c. Number of patrol wagons.
  - d. Number of cars (marked,  
unmarked).
  - e. Number and type of aircraft.

## MAINTENANCE AND LIABILITY

30. Who is responsible for maintenance of police motor vehicle fleet, i.e., city garage, police garage, contract garage, etc.

31. Liability insurance on police vehicles furnished by:
    - a. City/county
    - b. Department
    - c. Officer
    - d. Other
  32. Is your city/county self-insured?
  33. Number of lawsuits brought against the agency in the last year?
  34. Number of lawsuits settled last year?
  35. Total amount of payments to settle questions of civil liability?
  36. Does your department issue marked vehicles for off-duty use?

— PERSONAL EQUIPMENT
  37. Does the officer or the department furnish leather and uniforms?
  38. Yearly clothing allowance to officer for leather and uniforms?
  39. Sidearms furnished by officer or department?
  40. If sidearm is furnished by the department, what type, make, model, and caliber?
  41. Type of issued service ammunition used by your department?

## **\* FIREARMS USE AND POLICY**

42. Does your department have a policy on officers being armed off duty? If so, what is it?
  43. Number of officers who discharged a weapon last year.
  44. Number of incidents last year in which a firearm was discharged at a person by a member of the department, on-duty or off-duty, within or outside the jurisdiction.
  45. Number of firearm incidents in which an injury occurred to either a citizen or an officer.
  46. Number of firearm incidents which resulted in one or more fatalities to either a citizen or an officer.

**REVIEW BOARD**

  47. Does your department have some type of police review board for reviewing citizen complaints about officer conduct?
  48. Is this board limited to reviewing incidents involving shootings?
  49. What is the makeup of the police review board which handles citizens' complaints against police officers.?

**COMPENSATION**

  50. Base annual salary (minimum and maximum) for all sworn positions by rank.

## COMPENSATION

50. Base annual salary (minimum and maximum) for all sworn positions by rank.

51. At what rate does your department compensate for the court time and overtime, i.e., time and a half, double time, compensatory time, other.
  52. Does your department provide additional pay for any of the following? For example, longevity, hazardous duty, specialty, other.
  53. Does the department provide additional pay for the increasing levels of higher education and if yes, how much?

#### EMPLOYEE BENEFITS

  54. Number of days of paid sick leave annually and maximum number of days of paid sick leave which can be accumulated.
  55. Number of days of vacation leave received annually and increases in annual vacation days received due to length of service.
  56. Number of paid holidays per year.
  57. What percentage of the following health costs for officers is paid by the department for injuries on duty and off-duty; hospitalization, medical, surgical.
  58. What percentage of Group Health Insurance premium is paid by department?
  59. Does your department have a dental plan? If yes, what percentage of Dental Insurance premium is paid by the department.

60. What is the annual contribution to retirement by the officer and by the agency?
  61. What are the minimum and maximum retirement provisions in terms of years of service and age?
  62. What are the minimum and maximum retirement benefits?
  63. What are the specific nonservice-connected disability benefits and the specific service-connected disability benefits (e.g., 70% of average salary computed over highest 3 year's salaries)?
  64. What are the other death benefits, i.e., widows pension, surviving children, other?
  65. Insurance for natural death or line-of-duty death, if yes, how much?

## CONDITIONS FOR EMPLOYMENT

66. Does your department have a residency requirement for:

  - a. All employees?
  - b. All sworn personnel?
  - c. All new recruits?
  - d. Other (please specify)?

67. For what positions, if any, can your department accept for employment people from other departments or similar agencies with sworn experience for sworn police positions?
68. What educational requirements, if any, Does your department have educational requirements for its entry level, supervisory, or command ranks?
- PROMOTION PROCESS**
69. What types of evaluations are necessary for promotion to sergeant, to lieutenant, and to captain in your department, i.e., written exam, oral board, assessment center, etc.?
70. What agency is the source of your departments' written promotional examinations?
71. Have your promotional exams been formally validated?
72. Time-in grade (in years) required for eligibility to next higher rank i.e., police officer to sergeant, sergeant to lieutenant, police officer to detective, police officer to corporal, detective to sergeant, corporal to sergeant, lieutenant to captain.
73. What is the current educational level of personnel, both civilian and sworn, in your department?

Utility			Availability			Alternative Sources			
HIGH	MEDIUM	LOW	NONE	AVAILABLE	MODIFICATION	DIFFICULT	NOT AVAILABLE	UNIQUE	OTHER

74. What presentation medium for police administration statistics would be most useful for you, i.e., printed report, computer tape, floppy diskette, other medium?

---



---



---

75. What levels of segmentation and aggregation make the most sense for your use of police administration data, i.e., by agency size, by size of population served, city vs. county, by state and region, or any other breakdown?

---



---



---

76. If the Bureau of Justice Statistics was to support the regular collection and publication of police administrative statistics, then in your opinion, how often should it be done, i.e., every year, every other year, every 3 years, or some other period of time.

---



---



---

77. Please list below and on the following comment page other administrative police data, not mentioned in this questionnaire, that you would find useful if included in a national police administrative survey.

---



---



---



---



---



---



---



---



---



---



---



---

### **Further comments:**

## APPENDIX E

## **INTERVIEW QUESTIONS**

1. What types of law enforcement statistics are of interest?
  2. How often is there need for them?
  3. Is the type of information sought readily accessible?
  4. What is the primary source of statistical information?
  5. How much of the data available through publications (PERF, IACP, etc.) is of use?
  6. What format of these data is preferred?
  7. Are there areas that these statistics fail to address?
  8. Is there information provided that is of little or no use?
  9. What kinds of demands for information (i.e., from press, public) are there? Who furnishes this data? (Asked of police departments.)
  10. Do controversies arise ( i.e., brutality, force) that require the dispensing of information? (Asked of police departments.)

APPENDIX F

LIST OF INTERVIEWEES

NAME AND AFFILIATION	DATE
Professor Scott Decker University of St. Louis	April 4, 1984
Professor Egon Bittner Brandeis University	April 4, 1984
Professor James Fyfe American University	April 4, 1984
Professor James Q. Wilson Harvard University	April 12, 1984
Professor Richard Bennett American University	April 4, 1984
Professor David Bayley University of Denver	April 5, 1984
Kenneth Matulia IACP	April 5, 1984
Officer Thomas Melvin Dade County Police Department	April 4, 1984

Cindy Peterson Minneapolis Police Department	March 30, 1984
Captain Hauf Baltimore County Police Department	March 29, 1984
Officer Colleton Peoria Police Department	March 30, 1984
James Hayden Fairfax County Police Department	March 30, 1984
Esther O'Brien San Jose Police Department	March 30, 1984

**APPENDIX G**

**FORUM SURVEY SITES**

**FORUM SURVEY SITES**

1. Akron, OH
2. Alexandria, VA
3. Allentown, PA
4. Albuquerque, NM
5. Anchorage, AK
6. Ann Arbor, MI
7. Arlington, Co., VA
8. Arlington, TX
9. Atlanta, GA
10. Aurora, CO
11. Austin, TX
12. Baltimore Co., MD
13. Baltimore, MD
14. Baton Rouge, LA
15. Berkeley, CA
16. Birmingham, AL
17. Boise, ID
18. Boston, MA
19. Buffalo, NY
20. Cambridge, MA
21. Chattanooga, TN
22. Charleston, SC
23. Charlotte, NC
24. Chesapeake, VA
25. Chicago, IL
26. Cincinnati, OH
27. Clearwater, FL
28. Cleveland, OH
29. Colorado Springs, CO
30. Columbus, GA
31. Columbus, OH
32. Cook Co., IL
33. Corpus Cristi, TX
34. Dade Co., FL
35. Dallas, TX
36. Davenport, IA
37. Dayton, OH
38. DeKalb Co., GA
39. Denver, CO
40. Des Moines, IA
41. Detroit, MI
42. El Paso, TX
43. Eugene, OR
44. Evanston, IL
45. Fairfax Co., VA
46. Flint, MI
47. Fort Lauderdale, FL
48. Fort Worth, TX
49. Fremont, CA
50. Fresno, CA

51. Garden Grove, CA  
52. Garland, TX  
53. Genesee Co., MI  
54. Gravel Rapids, MI  
55. Greensboro, NC  
56. Hampton, VA  
57. Hartford, CT  
58. Hayward, CA  
59. Hialeah, FL  
60. Hollywood, FL  
61. Honolulu, HI  
62. Houston, TX  
63. Huntington Beach, CA  
64. Huntsville, AL  
65. Indianapolis, IN  
66. Jacksonville, FL  
67. Jersey City, NJ  
68. Kalamazoo, MI  
69. Kansas City, KS  
70. Kansas City, MO  
71. Lakewood, CO  
72. Lansing, MI  
73. Las Vegas, NV  
74. Lexington-Fayette Co., KY  
75. Long Beach, CA  
76. Los Angeles Co., CA  
77. Lubbock, TX  
78. Macon, GA  
79. Madison, WI  
80. Memphis, TN  
81. Miami, FL  
82. Minneapolis, MN  
83. Montgomery, AL  
84. Montgomery Co., MD  
85. Multnomah Co., OR  
86. Nashville-Davidson Co., TN  
87. Newark, NJ  
88. New Haven, CT  
89. New Orleans, LA  
90. Newport News, VA  
91. New Rochelle, NY  
92. New York, NY  
93. Norfolk, VA  
94. Oakland, CA  
95. Oklahoma City, OK  
96. Omaha, NE  
97. Orange Co., CA  
98. Orlando, FL  
99. Paterson, NJ  
100. Peoria, IL  
101. Philadelphia, PA  
102. Phoenix, AZ

103. Pittsburgh, PA  
104. Portland, OR  
105. Portsmouth, VA  
106. Prince Georges Co., MD  
107. Racine, WI  
108. Raleigh, NC  
109. Reno, NV  
110. Richmond, VA  
111. Roanoke, VA  
112. Rochester, NY  
113. Rockford, IL  
114. Sacramento, CA  
115. St. Louis, MO  
116. St. Paul, MN  
117. St. Petersburg, FL  
118. Salem, OR  
119. San Antonio, TX  
120. San Bernardino, CA  
121. San Diego, CA  
122. San Diego Co., CA  
123. San Francisco, CA  
124. San Jose, CA  
125. Santa Ana, CA  
126. Santa Monica, CA  
127. Savannah, GA  
128. Seattle, WA  
129. South Bend, IN  
130. Southfield, MI  
131. Spokane, WA  
132. Springfield, IL  
133. Stamford, CT  
134. Stockton, CA  
135. Sunnyvale, CA  
136. Tacoma, WA  
137. Tampa, FL  
138. Tallahassee, FL  
139. Toledo, OH  
140. Topeka, KS  
141. Torrance, CA  
142. Tucson, AZ  
143. Tulsa, OK  
144. Virginia Beach, VA  
145. Warren, MI  
146. Washington, DC  
147. Waterbury, CT  
148. Westchester Co., NY  
149. White Plains, NY  
150. Wichita, KS  
151. Winston-Salem, NC  
152. Yonkers, NY

REFERENCES

- Beyer, William C. and Helen C. Toerring  
 1929 "The Policeman's Hire," Annals of the American Academy of Political and Social Science vol. CXLVI (November):135-146.
- Cunniff, Mark A.  
 1983 Beyond Crime: Law Enforcement Operational and Cost Data.  
 Washington: Bureau of Justice Statistics.
- Dahlberg, Jane S.  
 1966 The New York Bureau of Municipal Research. New York: New York University Press.
- Eisenberg, Terry, Deborah Ann Kent, and Charles Wall  
 1973 Police Personnel Practices in State and Local Governments.  
 Washington, D.C.: Police Foundation.
- Farmer, Michael T., editor.  
 1978 Survey of Police Operational and Administrative Practices - 1977. Washington: Police Executive Research Forum.
- Fogelson, Robert M.  
 1977 Big City Police. Cambridge: Harvard University Press.
- Fraternal Order of Police  
 1983 A Survey of 1983 Salaries and Working Conditions of the Police Departments of the United States. Harrisburg: Law Enforcement Publications.
- Fyfe, James J.  
 1978 "Shots Fired: A Typological Examination of New York City Police Firearms Discharges, 1971-75." Unpublished dissertation, School of Criminal Justice, State University of New York at Albany.
- 1983 "Police Personnel Practices," from Baseline Data Report, Volume 15, International City Management Association, (January).
- Geller, William A. and Kevin J. Karales  
 1981 Split-Second Decisions: Shootings Of and By the Chicago Police.  
 Chicago: The Law Enforcement Study Group.

Geller, William A.

- 1983 "Deadly Force: What We Know," in Carl B. Klockars, ed., Thinking About Police: Contemporary Readings. New York: McGraw-Hill.
- Heaphy, John F., editor.  
 1978 Police Practices: The General Administrative Survey.  
 Washington: Police Foundation.
- International City Management Association  
The Municipal Yearbook, 1934-1982. Washington: International City Management Association.
- Johnson, David R.  
 1979 Policing the Urban Underworld: The Impact on the Development of the American Police, 1800-1887. Philadelphia: Temple University Press.
- Kansas City, Missouri Police Department  
 1973 Annual General Administrative Survey. Kansas City: Board of Police Commissioners.
- 1977 Response Time Analysis vols. 1-3. Kansas City: Board of Police Commissioners.
- Lane, Roger  
 1967 Policing the City: Boston 1822-1885. Cambridge: Harvard University Press.
- Langworthy, Robert H.  
 1983 "The Formal Structure of Municipal Police Organizations." Unpublished dissertation, School of Criminal Justice, State University of New York at Albany.
- Levett, Allan E.  
 1975 "Centralization of City Police in the Nineteenth Century United States." Unpublished dissertation, University of Michigan.
- Mastrofski, Stephen  
 1981a "Policing the Beat: The Impact of Organizational Scale on Patrol Officer Behavior in Urban Residential Neighborhoods," Journal of Criminal Justice, vol. 9, pp. 343-358.
- 1981b "Reforming Police: The Impact of Patrol Assignment Patterns On Officer Behavior in Urban Residential Neighborhoods."

- Unpublished dissertation, University of North Carolina at Chapel Hill.
- 1983 "Police Knowledge of the Patrol Beat: A Performance Measure," in Richard R. Bennett, ed., Police at Work: Policy Issues and Analysis. Beverly Hills, CA: Sage Publications, pp. 45-64.
- Matulia, Kenneth J.  
1982 A Balance of Forces. Gaithersburg: International Association of Chiefs of Police.
- Mead, Bennett  
1929 "Police Statistics," Annals of the American Academy of Political and Social Science, vol. CXLVI (November):74-95.
- Meyer, Marshall W.  
1980 "Police Shootings at Minorities: The Case of Los Angeles," Annals of the Academy of Political and Social Science, vol. 452 (November).
- Miller, Wilbur R.  
1977 Cops and Bobbies: Police Authority in New York and London, 1830-1870. Chicago: University of Chicago Press.
- Milton, Catherine H., J.W. Halleck, J. Lardner, and G.L. Abrecht.  
1977 Police Use of Deadly Force. Washington, D.C.: Police Foundation.
- Monkkonen, Eric H.  
1981 Police in Urban America, 1860-1920. New York: Cambridge University Press.
- Ostrom, Elinor, Roger Parks, and Gordon Whitaker  
1978 Patterns of Metropolitan Policing. Cambridge: Ballinger.
- Police Executive Research Forum and The Police Foundation  
1981 Survey of Police Operational and Administrative Practices - 1981. Washington: Police Executive Research Forum and Police Foundation.
- Richardson, James F.  
1970 The New York Police: Colonial Times to 1901. New York: Oxford University Press.
- Robinson, Louis N.  
1933 "History of Criminal Statistics (1908-1933)." Journal of the American Institute of Criminal Law and Criminology, vol. 24 (May-June):125-139.
- Schmidt, Wayne W.  
1974 Survey of Police Misconduct Litigation 1967-1971. Evanston, Ill.: Americans for Effective Law Enforcement.
- SEARCH Group, Inc.  
1976 Dictionary of Criminal Justice Data Terminology. Washington: Bureau of Justice Statistics.
- Sherman, Lawrence W. and Robert H. Langworthy  
1979 "Measuring Homicide by Police Officers," Journal of Criminal Law and Criminology 70 (December), 4:546-560.
- Smith, Douglas A.  
1982 "Invoking the Law: Determinants of Police Arrest Decisions." Unpublished dissertation, Indiana University.
- Spelman, William and Dale Brown  
1981 Calling the Police: Citizen Reporting of Serious Crime. Washington: Police Executive Research Forum.
- Takagi, Paul  
1974 "A Garrison State in a Democratic Society," Crime and Social Justice: A Journal of Radical Criminology (Spring-Summer).
- Timmerman, L. S.  
1929 "The Annual Police Report," Annals of the American Academy of Political and Social Science vol. CXLVI (November):96-103.
- Uchida, Craig D.  
1982 "Controlling Police Use of Deadly Force: Organizational Change in Los Angeles". Unpublished dissertation, School of Criminal Justice, State University of New York at Albany.
- Vollmer, August  
1933 "Police Progress in the Past Twenty-five Years," Journal of the American Institute of Criminal Law and Criminology vol. 24 (May-June):161-175.
- Walker, Samuel

1977 A Critical History of Police Reform: The Emergence of Professionalism. Lexington, Mass.: Heath.