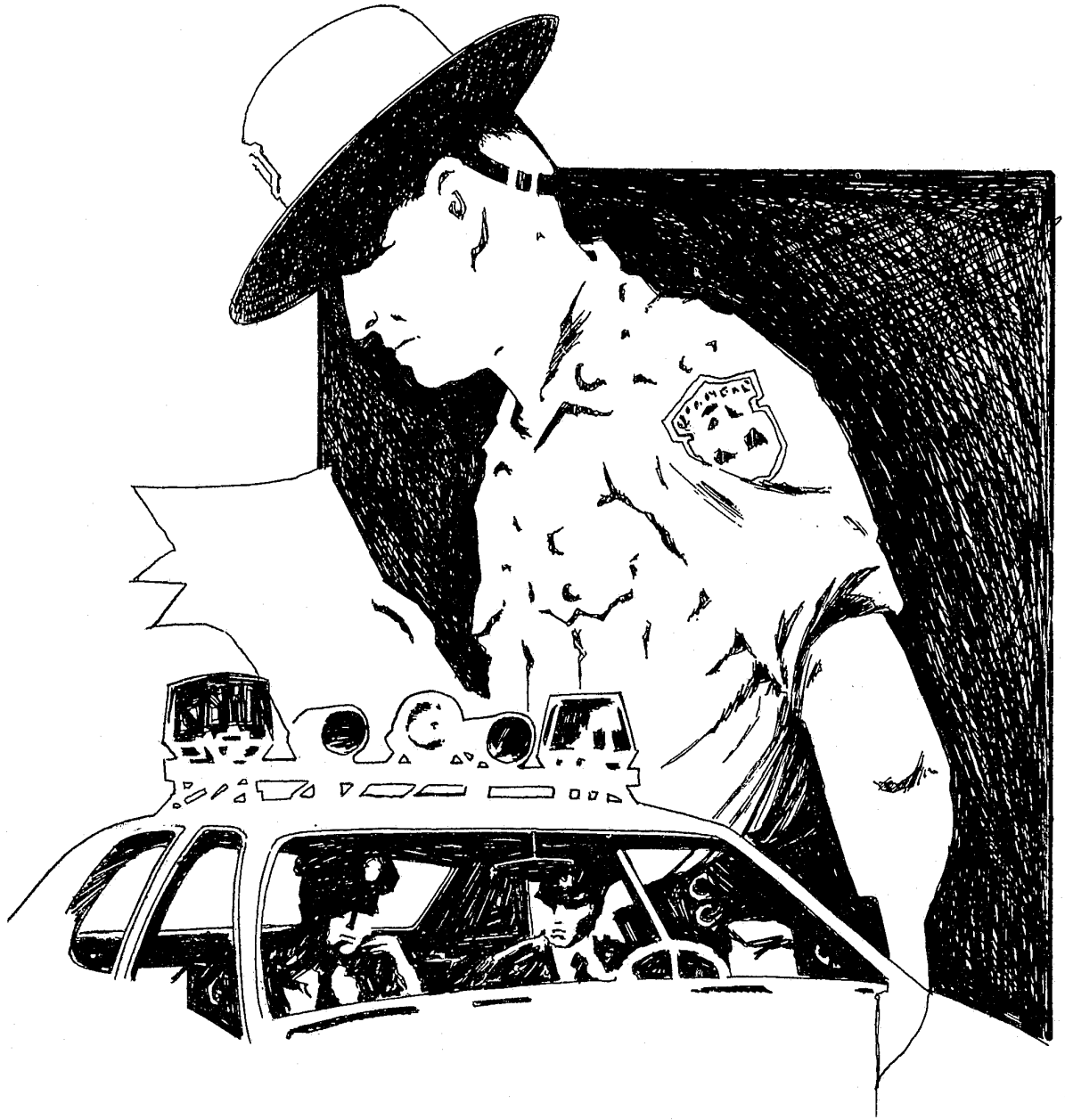




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POLICE CRIME ANALYSIS UNIT HANDBOOK



U.S. DEPARTMENT OF JUSTICE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
NATIONAL INSTITUTE OF LAW ENFORCEMENT AND CRIMINAL JUSTICE

This handbook is one of a series of "Prescriptive Packages" sponsored by the National Institute of Law Enforcement and Criminal Justice. Prescriptive Packages are designed to provide criminal justice administrators with operating guidelines in important program areas. Based on research findings and recent program experience in various parts of the country, they are specifically designed for practical application.

POLICE CRIME ANALYSIS UNIT HANDBOOK

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November 1973

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ABSTRACT

The purpose of this project was to develop a relevant and useful Crime Analysis Handbook and to encourage local law enforcement agencies to make use of it. With the development of the Handbook this goal has been accomplished in two ways. First, the Handbook describes the benefits derived from the implementation of a formal crime analysis unit; and second, the Handbook shows how such a unit may be established.

The Handbook breaks down operational units into three categories and describes how each unit would operate. The categories are: (1) manual units for small agencies; (2) semi-automated units for medium agencies; and (3) fully automated units for large agencies. Issues dealt with in each category include goals, staffing, evaluation, operation, etc.

Handbook preparation was undertaken with depth in police expertise in a staff role utilizing a Users Advisory Committee for review and recommendations. The committee consisted of police administrators and line supervisors who were involved with crime analysis units. Also, extensive use was made of consultants with far ranging experience in the field.

An extensive literature search was completed, numerous interviews with agencies in the field were performed, and draft reports were reviewed by the Advisory Committee prior to the completion of the Handbook.

The findings of this report concluded that:

1. There is an insufficiency in the availability of literature on the subject of crime analysis.
2. There is an overall lack of the use of formal crime analysis.
3. Increased use of these units will be realized with a greater understanding of their capabilities.
4. From the intense interest shown by contributing agencies, the Handbook will be of significant use to law enforcement agencies.

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FOREWORD

THE POLICE CRIME ANALYSIS UNIT HANDBOOK identifies different ways in which police departments can formally organize the crime analysis process to best serve their own needs and resources.

Crime analysis by law enforcement agencies is not new. Police officers have long analyzed crime informally. An alert patrol officer, plagued by a rash of auto thefts in a particular section, may know from experience that such thefts are often committed by youngsters. Aware of a new teenage "hangout" near the theft sites and determining that its closing hour corresponds to the time of the thefts, he can then alter his tactics to cope with the problem. Similarly, a detective may correlate the appearance of a suspected fencing operation with a series of commercial burglaries. Examples of police sensitivity to the trends and patterns of crime abound.

This handbook was developed to present the best available crime analysis technology and a variety of methods to incorporate the analysis function into departmental structure. Wherever possible, the information on techniques was gathered from the men and units that developed them. Our hope is to provide a practical guide for establishing crime analysis units which a police chief or sheriff can adapt to suit his own organization.

GERALD M. CAPLAN, *Director*
National Institute of Law Enforcement
and Criminal Justice

PREFACE

THIS HANDBOOK is seen as a model or set of basic considerations that can be referenced as a starting point in creating new or improving upon existing crime analysis programs. It is written with emphasis being placed on the operational rather than theoretical aspects of the problem area. It is envisioned simply as an aid to local law enforcement personnel in perceiving the concept of formal crime analysis. It is intended to show the benefits of formal crime analysis, as a means of encouraging local law enforcement commitment toward the use of this tool.

The writers have tried to address all major aspects of crime analysis, certainly not in a comprehensive manner, but at least touching briefly on each pertinent area. The handbook is not an operating manual, rather it should be viewed as a source from which an agency can start building a system that must be tailored to their own individual needs.

The handbook was developed through the efforts of a number of individuals and agencies. The continuing encouragement and cooperation of the Law Enforcement Assistance Administration is greatly appreciated. In particular, Martin Danziger, former Director of the National Institute of Law Enforcement and Criminal Justice, provided essential support for this project from its inception. Efforts of other Institute staff—Harry Bratt and Walter Burkhardt—are appreciated. Dave Powell, who monitored the project for LEAA, contributed substantially to the effort by resolving problems and providing proper perspective between this project and other research activities.

A great deal of credit is due the members of the Crime Analysis Unit Users Advisory Committee: Keith Bergstrom, Miami Police Department; Sgt. Floyd Bartch, Kansas City (Missouri) Police Department; Lt. Joseph Colletti, Oakland Police Department; Inspector Don Cowell, Detroit Police Department; Director James B. Hicks, Columbus (Georgia) Police Department; Sgt. Cliff Mascas, Dallas Police Department; Division Chief Paul Montoya, Denver Police Department; and Lt. John Zunino, San Joaquin County (California) Sheriff's Office.

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Appreciation is also extended to the CCTRF Board of Directors, Sheriff Michael N. Canlis, Chairman, and to Douglas E. Roudabush, CCTRF Executive Director, for providing substantive input to the handbook.

The Project owes special thanks to the many police departments providing valuable input to the project: Battle Creek, Cincinnati, Chicago, Houston, Tucson, St. Louis, Long Beach, Redondo Beach, Seaside, Grand Rapids, Edina, Lakewood, University City, Pomona, and the Dade County Department of Public Safety.

GEORGE A. BUCK

SUMMARY

THE POLICEMAN on the street is frequently limited to his own experience when dealing with reported crimes and individual criminal contacts. Most police agencies have not made concerted efforts toward providing the line officer or supervisor with regular information concerning crime problems and individual criminals. By collecting and analyzing readily available crime data, and making the analyzed information regularly available, crime analysis can make the individual line officer more informationally aware and thus more effective.

Police agencies have been criticized for neglecting to utilize the information collected by them for anything other than variably available records and the compiling of statistics. Crime analysis represents a system utilizing regularly collected information on reported crimes and criminal offenders for crime prevention, suppression, and the apprehension of criminal offenders. Crime analysis supports police operation through strategy planning, manpower deployment, and investigation assistance.

This text provides the police manager with information concerning crime analysis functions, methodologies, capabilities, and limitations. It is intended to provide interested law enforcement agencies with information sufficient to establish a crime analysis unit, evaluate an ongoing operation, and plan for expanding and upgrading existing systems. Considerations of organizational placement, staffing, data collection and storage, correlation methodologies, and identification of critical use areas are discussed.

The crime analysis operational personnel should find this handbook invaluable as a source reference for their operations. By providing examples of functioning crime analysis operations, this text can be used to avoid the mistakes encountered by others.

Some form of crime analysis exists in every police agency. However, in most agencies the individual officer or investigator conducts the analysis of limited crime data in an informal way. Formal crime analysis exists when a specific unit has been established to collect and analyze all of the available crime data and disseminate the "distilled" crime information to operational user groups.

The operation of a crime analysis system requires several basic elements. These include a definition of goals and objectives, crime data input, analysis of crime data, crime information disseminated as output, and feedback and evaluation. In addition, several fundamental prerequisites must be considered. These include formal administrative support, organizational placement, staffing, and a method of guaranteeing the integrity of input crime and offender information.

The crime data collected by a crime analysis operation is generated by a number of data sources. These include sources

within the parent agency, such as patrol, detectives, records, communications, special units, and administration; and sources outside the agency, such as other law enforcement agencies, probation departments, corrections, court records, state records, and private organizations.

Most of the crime data collected by a crime analysis section is received from the operational units within the parent agency. This data consists of offense reports, supplemental reports, arrest reports, field contact reports, special analysis reports, departmental records, and statistical data. In addition to this structured data, the crime analysis section also collects informal data (such as soft intelligence) from other departmental units within the agency.

Outside data sources contribute information to the crime analysis section regarding status and records of known offenders, other law enforcement agency crime problems, and collateral information.

The collection of data for the crime analysis operation requires a determination of the accessibility of data sources, an evaluation of the data validity and reliability, standardization of data elements, and systematic collection methodology. The actual data collection and the format in which data is received is dependent upon the sophistication of the system, the communication vehicle (such as direct routing vs. computer terminal), and the functions performed by the crime analysis operation.

A crime analysis system requires the maintenance of specific records and data storage. The analysis section files are operational as they are based on a nonduplication of other departmental records and stored data accessibility or retrievability. The storage of crime analysis data may be either manual or mechanical. Computer storage has numerous benefits. Necessary crime analysis records include crime description files, known offender files, crime target files, criminal history files, suspect vehicle files, and property files. These files require periodic purging based on data utility and record storage methodology.

Crime analysis is especially suited to those offenders with a high probability of recurrence and is directed toward those criminal offenses the police are most capable of suppressing, or those offenses in which the perpetrator can be apprehended. Some benefits may be attained in analyzing nearly all types of crimes; however, the crimes selected for extensive analysis must be based on priority considerations.

The analysis of different crime types is dependent upon the information available to the analyst for extraction, collation, comparison, and correlation. Several informational factors can be considered universal, such as crime type, geographical factors, chronological factors, victim target descriptors, suspect descriptors, vehicle descriptors, and property loss descriptors. However, these universal factors are only variably available when analyzing a specific crime type. Thus, the analysis of a particular crime type presents specific problems with alternate solutions.

In addition to the universal factors, there are a number of factors that may be considered specific to a particular crime type. These factors are almost always present for the specific crime to be analyzed. The specific crime factors represent the information with which the analyst will usually connect crimes by unique characteristics and identify MO patterns.

The suitability of the various crime types to analysis is discussed

with emphasis on informational availability and value. Specific discussions include the analysis of residential and commercial burglary, armed robbery, strong-armed robbery and theft from persons, auto theft, general theft classifications, forgery and fraud, rape and sex crimes, and aggravated assault and murder. The crime analysis section should review all of these offenses with indepth analysis on burglary, robbery, auto theft, special theft classifications, and rape.

Geographical analysis is the examination of crime type to actual location or within prescribed areas. This analysis is performed to identify geographical crime patterns and trends. Geographical analysis may be performed utilizing mapping, graphical or statistical methods. Specific mapping methods include various manual-visual techniques and computer mapping. In addition to crime type maps, it is suggested that crime analysis also maintain known offender and other special maps.

The collation and correlation of crime analysis data is dependent upon the expertise of the analyst, the analytical techniques utilized, and the availability or retrievability of recorded crime data. Crime analysis is especially suited to correlative listings of possible suspects for particular crimes or listings of crimes having a common offender.

One of the most important functions of the crime analysis operation is to identify crime trends and predictively project criminal activity. By effectively analyzing crime data the analysis section can identify crime patterns or changes in crime patterns and make such information available to others for operational utilization. In addition, crime analysis can undertake the task of identifying potential crime targets for the deployment of special assignment personnel. By recording information on frequent crime targets, the crime analysis section can determine similarities which make these targets most attractive to the criminal and predictions can be made.

For crime analysis to be effective, the analyzed information must be disseminated to operational user groups. Crime analysis information is disseminated by either formal or informal means. The majority of information disseminated by the analysis section takes the form of formal structured publications. The various formal dissemination techniques are utilized for purposes of crime prevention, suppression, and suspect apprehension. The publications are tailored to user needs, and function to increase officer awareness and facilitate short-term special manpower deployment.

Information on criminal offenses is disseminated daily, weekly, monthly, and on an as-needed basis. These publications take the form of crime recaps, information bulletins, crime summaries, and analysis section reports. Information of criminal offenders is disseminated either routinely or on an as-needed basis. Of particular importance are crime pattern information bulletins and investigative lead reports.

A crime analysis operation also communicates information to user groups on an informal basis. Informal dissemination of crime analysis information takes place during discussions between analysis and operational personnel, and during examination of the analysis section by information user personnel. Several law enforcement agencies have attempted to increase informal dissemination of analysis information with successful results.

A crime analysis operation can be evaluated by a number of methods. Utilizing conventional planning techniques, the law enforcement administrator can determine to some degree the areas of increased effectiveness that should result from the implementation of an analysis section. Evaluation of the program is a necessary part of planned change. Various techniques are suggested for evaluating the operation on a functional basis. The analysis section activities also require evaluation on a cost effectiveness basis. This can be largely accomplished by determining costs per output unit and by measuring user reliance or opinions of information recipients. Additional forms may be designed to determine the user utilization of crime analysis information.

A manual crime analysis system is one in which all methods of data collection, data storage, data analysis, and information dissemination rely on manual processes. The manual system has several limitations when compared to semiautomated or fully automated systems. However, most of these limitations can be overcome by increasing analysis staffing levels. The manual methods remain best suited to agencies serving populations below 200,000.

The semiautomated crime analysis system is one in which much of the data is captured by automated data processing. In addition, stored and recorded data is filed mechanically for easy retrievability. The semiautomated system requires fewer personnel actually assigned to the unit but receives support from other departmental units. The semiautomated system may still require manual data extraction and manual analysis.

The fully automated crime analysis system utilizes extensive data capture by electronic means. The analysis function is carried out primarily by computer with special analysis capabilities programmed for use by the analyst as the need arises. The storage of data is completely mechanical and the analyst can employ a wide variety of analysis techniques and search criteria.

Chapter I.

INTRODUCTION

ANALYZING CRIME is not new. Ever since policemen began searching for similarities between reported crime occurrence there has been some form of crime analysis. This text hopes to legitimize and systematize the crime analysis process so it will become an accepted and identifiable function within the police organization. Although crime analysis is usually considered to be an esoteric process left to the Sherlock Holmes types, a number of recent factors have renewed interest in the process. Certainly the problems of increasing crime rates, increasing calls for police service, increasing costs of police operations, and the increasing attention given to productivity standards have had a significant effect. As a result, agencies are beginning to develop crime analysis units of varying responsibilities and sophistication, with the use of computers assuming ever-greater importance.

The impact that crime analysis can have on a law enforcement agency is impressive. The Los Angeles Police Department, for example, in 1972 reported that their PATRIC system (Pattern, Recognition and Information Correlation) can process 130,000 cases per year and yield over \$6,000,000 annually in total savings on the basis of saving 4.5 hours of investigative time per case. A further finding showed that in approximately two of every five new cases, there was in the PATRIC data base a crime report or related suspect information of immediate interest to the investigator.¹ The Chicago Police Department, utilizing their manual hand-sort system, in 1972 identified 1,528 crime patterns in five selected offense categories and, of those, cleared 436. The average pattern consisted of six cases.

¹ "PATRIC Design Requirements", *System Requirements*, Vol. I, July 17, 1972.

A. Scope and Use of Crime Analysis Information

Crime analysis supports police operation through strategy planning, manpower deployment and investigation assistance. It supports police and criminal justice planning efforts, and provides data for program and tactical evaluation. A more definitive overview of the crime analysis mission appears in Table 1-1.

The purpose of a crime analysis unit is threefold. First, crime analysis should assist in the process of establishing, screening, and ordering lists of suspects for individual crimes, based on characteristics of the crime and the MO of known offenders. Second, crime analysis should assist in assembling and ordering the topics and specific crimes which may involve a suspect already in custody. This can maximize the number of cases properly cleared by a single arrest. Third, crime analysis should assist in the proper assignment and deployment of preventive patrols and other police functions in order to assure police observation of crimes in progress.

TABLE 1-1
The Crime Analysis Mission

THE CRIME ANALYSIS MISSION		
Support	Activity	Method or Technique
Detective	Case Investigation	Known Offender — MO — Associates — Status — Location
Detective	Case Investigation	Offense Correlation — Evidence — Location — Day, Week, Etc. — Property — Crime Specific — Victim, Witness
Detective	Special Operations	Locational Stake-Out Patterns
Patrol	Manpower Allocations	Crime Pattern Information Crime Prediction Profiles
Patrol	Tactical Assignments	Crime Location Patterns
Patrol	Suppression	I.D. of Offenders Active in Area
Patrol	Patrol Effectiveness Improvement	Characteristics—Unique Crime Types
Planning	Strategy Development	Categorize Crime Problems Demographic Correlations Prediction of Future Problem Areas

B. Use of Crime Analysis Handbook

This handbook is intended to provide interested law enforcement agencies with information sufficient to establish a crime analysis unit, evaluate an on-going operation, and plan for expanding and upgrading an existing crime analysis unit. Procedures as generally contained herein are presented with the intent of aiding the fledgling crime analysis unit. Suggestions are put forward pertaining to organizational placement, staffing considerations, data collection and storage, correlation methodologies, and identification of a set of critical use areas. The reader should not assume that in order for a crime analysis unit to operate properly it must do everything mentioned within this document. Each agency can design its own crime analysis system in a custom-manner selecting those aspects which can best serve its individual needs.

For the purposes of this handbook, crime analysis does not include such activities as establishing patrol beat surveys, long-term manpower allocation and deployments, or the counting of statistics for Uniform Crime Reporting (UCR) programs. Moreover, crime analysis is not offered as a panacea for solving crime causation, social unrest, or problems of personnel shortages within an agency.

Crime analysis as considered in this handbook is a system of identifying patterns or trends where they may exist. Crime analysis is one more "tool" of law enforcement which can serve the varying needs of several different masters. It *can* aid in the suppression of selected crimes through the early identification of pattern activity, and by providing staff recommendations on specific corrective programs. Crime analysis *can* aid in the apprehension of criminal offenders by providing correlation between different offenses, and between suspects and offenses. Crime analysis *can* aid in the prevention of criminal activity through its recommendations to researchers and planners for environmental security considerations in residential communities and commercial developments. Crime analysis *can* aid police administrators in developing better community relations by graphically illustrating criminal activity patterns to citizens groups, homeowner associations, etc., and thereby enlisting their support in crime-specific programs.

1. Potential Handbook Users.

a. *Administration and Staff Usage.* The handbook serves as a general introduction to the law enforcement administrator who is planning or considering the establishment of a crime analysis unit. O. W. Wilson² and other authorities recommend the police agency should provide crime analysis data. The "nuts and bolts" of the crime analysis unit have never been developed, either on a theoretical level, or categorized into a suggested operations manual.

This manual provides the police manager with data for administrative planning considerations on such critical areas as the organizational placement, staffing, and financing of a crime analysis unit. The handbook also defines the functions, methodologies, capabilities and the limitations of crime analysis. The handbook should give to the administrator a better perspective as to the role of crime analysis within the agency.

b. *Operational Usage.* The primary source of raw data input to the crime analysis unit comes from the reports prepared by the members of the patrol function. It is essential for them to have a working understanding of the crime analysis unit role and function.

The handbook is also of use to special operating units such as tactical, helicopter, K-9, bicycle, saturation, etc.

The handbook can identify and suggest areas of usage by patrol, such as evaluating crime-specific control programs, or for evaluating variations in patrol techniques or effectiveness. Finally, the handbook will be a reference source for patrol commanders and supervisors in establishing their problem needs and outlining specific user requirements for crime analysis.

The handbook is an introductory document which explains the methods and techniques employed by the analyst in examining the criminal's MO activity. The handbook is a reference source to investigative commanders and supervisors in establishing their needs and outlining specific user requirements for crime analysis.

c. *Records and Data Processing Usage.* The handbook, beyond serving as an introduction, provides records and data processing personnel with the data requirements for

² O. W. Wilson and Roy C. McLaren, "Police Administration", 3rd ed. Several pages are devoted to explaining what crime analysis (termed field operations analysis) can do and cites Chicago Police Department as an example. "Municipal Police Administration", International City Management Association, refers briefly to the need for crime analysis information.

crime analysis. In this respect, the handbook can be used as a general guide in establishing possible EDP programming for crime analysis usage.

d. *Crime Analysis Usage.* The main purpose of the handbook is to act as a source reference for those people who are directly associated with the crime analysis unit operations. The handbook is intended to identify as many considerations as possible which should be given to a newly formed crime analysis unit. The handbook can provide essential information in such areas as data collection methods, data storage, searching and correlation techniques, and standards for overall evaluation. Interviews have shown that the few agencies who have formally established crime analysis units had also spent a considerable amount of time and money in traveling to and observing such operations in other cities. Hopefully, this document can lessen the expense of men and time spent in such research and enhance understanding of operating crime analysis units.

The handbook has utility for crime analysis units already in operation. For such agencies, a detailed account of the "state-of-the-art" provides the impetus for expanding into new areas of operation or updating current practices and methodologies. Finally, the projection of a "model crime analysis unit system" establishes a theoretical basis for comparison with current operations.

C. Crime Analysis Development

All police departments perform some crime analysis activity. However, the research of this study has shown that the overwhelming majority of the police departments have not made any one individual or unit responsible for performing this activity. In cases where police departments have designated crime analysis units these units are actually performing tasks which more reasonably relate to counting crime statistics, making beat surveys, and planning manpower allocations. The actual work of crime analysis is being performed in unassociated operational divisions and details.

Stimulation for crime analysis can be attributed to (1) the development of the *modus operandi* in England in the early 1900's and which now may be found in various stages of

use in many police agencies; (2) the requirement for traffic analysis as promoted by the Northwest Traffic Institute. The development of effective traffic supervision was predicated on the need to have readily available information concerning the type of circumstances that create traffic accident problems. The effort was further articulated to show the need to process data and place it in significant format, e.g., pin maps, tables, graphs, summaries, etc., for prediction, deployment, and other purposes.

In a discussion of crime analysis concepts, it is helpful to define the qualities of both "informal" and "formal" crime analysis concepts. The letter will then be redefined in terms of basic operations and advanced operations.

1. *Informal Crime Analysis.* Informal crime analysis, in its simplest sense, is performed by all officers as they investigate crimes. Crime analysis is the quality of examining one crime occurrence and comparing it with similar past events. In essence, the officer is a walking crime analysis unit as he compares his investigations with his past experiences and with the experiences of others. However, the officer's experiences are limited by the number of hours he works and, essentially, his experiences are not coordinated with the experiences of others.

Larger agencies which have crime specific details in their investigative bureaus also perform informal crime analysis. Inasmuch as investigators specialize in particular crime categories, the quality of the informal analysis is generally of a higher level than that of the patrol officer. Despite the sometimes extensive system of logging reports, investigators generally rely on memory as their main tool for correlating reports and identifying patterns.

The following is a list of characteristics which can be generally associated with informal crime analysis:

- Based on individual officer's memory retention and past experiences.
- Hampered by an officer's limited "on duty" availability and interest.
- Tends to be subjective, biased and out of date.
- Hampered by a large volume of crime occurrence.
- Requires a longer time period to identify patterns.
- Limited MO data storage system.
- Patterns are, more time than not, iden-

tified *only* by unusual or odd MO characteristics.

- Limited in scope and ability to recognize a general crime picture developing within an area or throughout a community.
- A noncoordinated function.
- Information which is developed is generally for limited use and is hampered by the absence of a formal communications link between units or individuals.

2. *Formal Crime Analysis Operation.* A formal crime analysis operation is one in which the responsibility for identifying crime patterns has been given to one specific person, persons, or "unit". Very few crime analysis units have a delineated set of operational goals. The essential quality of a formal crime analysis unit is that it views the overall occurrence of crime through "one set of eyes". As a general rule, the staff of a crime analysis unit has been selected for qualities of experience and analytical ability. The following is a list of characteristics generally associated with a formal crime analysis unit:

- Provides a more objective analysis.
- Reviews the overall occurrence of crime through "one set of eyes".
- Has, as a general objective, the identification of crime patterns through MO analysis.
- Is a staff unit and should not be directly involved in investigation or enforcement.
- Provides a vital communications link between operational units relating to crime pattern activity and thereby provides a coordinating staff service.
- Identifies criminal patterns within a shorter period of time than informal crime analysis.
- Provides a systemized method for storing and retrieving crime MO data.
- Has a broader scope as to the overall general crime picture.

The degree of operational sophistication of a formal crime analysis operation establishes its operational utility. For the purposes of this handbook, the two extreme levels—basic and advanced—are identified. Most crime analysis unit operations will operate somewhere on the continuum. Factors determining the operational level include:

- Number of personnel assigned.
- Hours of operation.
- Type of equipment employed.
- Extent of data storage.

- Scope of crimes, subgroups, and MO traits which are analyzed.
- Analysis, techniques, and capabilities.

a. *Basic Operation.* Basic level crime analysis operations are characterized by *limited* capabilities. That is, tasks are performed which are intended to aid in "solving" a current problem, rather than preventing its occurrence through crime predictions or suggested corrective programs.

A basic operation is characterized as follows:

- Staffed by 1–2 personnel.
- Operates during normal business hours.
- Analyzes 3–4 crime categories.
- Employs a manual system of filing and storing data.
- Has a limited cross referencing of data storage.
- Lacks crime prediction.
- Lacks known-offender/modus operandi analysis.
- Has a limited visual geographical analysis, generally pin maps.

To a very large degree crime analysis is directly dependent upon a unit's ability to collect and store information from incoming crime reports. The limited staffing capability of a basic crime analysis operation severely handicaps its capability. In all but the small departments, the absence of an automated data storage and retrieval system limits the crime analysis utility.

b. *Advanced Operations.* Advanced crime analysis operations are of a much greater scope than those of the basic crime analysis operation. The advanced operation is also oriented toward anticipating future problems. It analyzes past data for the purpose of identifying future trends and problem areas.

Although they are not absolutely essential, computers can form the central core to advanced crime analysis unit operations. Computers are able to provide greater extended benefits to the advanced operations because of their capability to search a greater number of records and use relatively complex search criteria. Furthermore, a computer does not tire of repetitious tasks, nor fail to recognize logical associations as a result of fatigue or stress.

Advanced operations should have the following characteristics:

- Rapid correlation between offenses.
- Provide names of suspects.
- Complex searching criteria.
- Large staff.
- 24-hour day operation.

- Computer-stored data base.
- Crime reports which are reviewed for quality control before updating data base.
- Expanded numbers of crime categories and subgroups which are analyzed.
- Complex storage of known offenders information including descriptions, vehicles and MO's.

c. *Future Consideration.* As crime analysis becomes accepted, refined, and expanded, it will become more of an operational tool

indispensable in day to day deployment of personnel. Crime analysis will provide the nucleus of data support for dynamic police command and control. One department has already undertaken a study to determine if crime analysis can provide data to direct the officer's patrol time. Directed patrol activities are dispatched to the patrol unit as any other normal call for service activity would be. Thus, crime prevention duty based on prediction vies for the officer's time equally with calls for police service.

Chapter II

BASIC ELEMENTS OF CRIME ANALYSIS

A. Definition of Goals and Objectives

FOR A NUMBER of reasons it is extremely desirable that crime analysis unit objectives be formally delineated. First, it provides direction and purpose to the unit as a whole, i.e., the unit's staff have a firm basis of understanding as to what they, as a team, are expected to accomplish. Some of the objectives may be purposely broad or general in nature, such as measuring the effects of special task force activities, or providing staff studies on crime profiles and projections. However, many goals are specific in nature and can be qualified into numerically achievable figures.

The second purpose of goal setting is that it actually determines how the unit will function. In this sense, the work concentration, or the manner in which the work is actually performed, will be focused on specific problem solving or goal attainment.

The final reason for goal setting is that it provides a quantitative standard by which the crime analysis unit commander (CAUC) or the administrative staff, can periodically evaluate work performance. Evaluations may measure a unit's ability to achieve certain objectives or to solve specified problems. If goals are not specified, then any subsequent evaluation can only be a statistical report of activity without really assessing if the unit accomplished its objective.

The following is a list of some general objectives of crime analysis:

- To increase the number of cases cleared by arrest by correlating the MO of arrested suspects to other current offenses.
- To provide investigative leads for detec-

tives by furnishing lists of suspects whose MO's match those of current offenses.

- To provide a greater number of crime pattern bulletins for the patrol function and thereby increase the awareness of field officers thus increasing the potential for earlier arrests.
- To provide a means for influencing citizen groups to observe criminal activity as it directly pertains to them, and thereby aid in enlisting their support for crime-specific prevention programs.
- To provide information relating to security considerations for environmental design of new residential communities and commercial developments.
- To provide early identification of crime patterns through MO correlations.
- To increase the number of discovered crime patterns which are capable of being identified.
- To provide a means of measuring the results of crime-specific prevention or suppression programs.
- To provide staff recommendations on possible program solutions to crime problems.
- To aid in the coordination of special crime suppression task forces.
- To provide information on projected levels of offender activity and to identify future problem areas.

B. Crime Analysis as a Step-by-step Process

There is a fundamental assumption in the analysis process which holds that a problem is best solved by first examining its scope and by then identifying its components. A further assumption, and one which is peculiar to crime analysis, is that offenders will generally carry out their acts in a repetitive manner and style. Therefore, the analysis process must include identification of the manner in which a crime was committed, a comparison of the crime with similar crimes and a comparison of the crime with the MO "style" of known offenders.

The analysis process as applied to criminal activity is a specific step-by-step sequence of five interconnected functions:

- Crime data collection
- Crime data collation

- Analysis
- Dissemination of analysis reports
- Feedback and evaluation

Collectively, these five sequential elements, or stages, are known as the "Crime Analysis System" (CAS). Much of the methodology, technique, and examples of these stages will be developed in subsequent chapters. However, it is useful at this point to briefly discuss each stage separately for the purpose of explaining its role in the analysis process.

1. *Crime analysis collection* is simply the gathering of raw data concerning reported crimes and known offenders. Generally, such information comes from crime reports, arrest reports, field contact cards, and other recording documents used by the agency. This is not to say that these are the only sources from which crime data is collected. Certainly, they are not. As will be outlined in Chapter III, there are numerous information sources both inside and outside an agency.

The collection phase should also be planned and focused in order to be effective. That is, crime data should be collected on only those offenses which are capable of being analyzed as a result of their repeated frequency or patterns. For example, murder is seldom a repetitive crime perpetrated by the same offender. Therefore, it would not serve any general purpose to continually collect such crime data.

2. *Crime data collation* is the first step in the process of transforming raw data on crime and known offenders into an organized format for subsequent comparison and analysis. However, collation means more than the simple storage of materials in files. It includes sifting out useless or irrelevant or incorrect information, the arranging of collected materials so that relationships between crime data elements may be established, and creating a system for rapid retrieval of stored (file) information.

3. *Analysis* is the function of assembling and comparing the bits and pieces of information which have been collected and placing them together in such a manner as to show pattern and meaning. It is the extracting of MO elements from crime reports and the subsequent searching of the data base by each of the separate elements in an attempt to associate the crime with past events. Analysis is the searching, comparing, and identification of as many elements as possi-

ble which link, or tie together, two or more crimes, or a crime with a specific suspect.

4. *Dissemination of analysis reports* has as its concern both the *format* with which the product information is presented and the *timeliness* of the report to its user groups.

The crime analysis report itself must be objective and must be written, or presented, in such a manner that there is a clear delineation between *positive* correlations of MO elements and a tentative hypothesis based on *possible* correlations of MO elements.

In other words, the report should state its qualitative degree of reliability and then list those factors or reasons which led to such conclusions or hypotheses. This may take the form of listing common characteristics between a series of crimes which are suspected of being related, or listing common characteristics of a crime and the MO of a known offender. In complex cases, it may require a summary of the information.

The crime format should also be tailored, or custom-designed, to meet the particular requirements of the specific user group. It is reasonable to assume that user groups will pay greater attention to those reports which are specifically prepared for them, than to reports which require an extensive search process to locate information which is relevant to their particular needs.

Finally, the *timeliness* of the crime analysis report to the user groups is important. In order for the report to have user meaning, it must reasonably coincide with problems that are current. The utility of crime analysis information which is developed weeks after the suspect has been arrested is certainly marginal. The dissemination phase, then, is the reporting of information according to user group requirements, and getting it to them when they most need it.

5. *Feedback and evaluation* is the key connecting link for the crime analysis system. It is the phase which returns user group assessment on the worthiness and validity of the crime analysis unit's products and activity. It cannot be over-stressed that the amount of feedback be as broad-based as possible. It is important to understand that feedback should be a wide open communications line between the crime analysis unit and all of its user group personnel, down to and including the beat officer on the street.

The crime analysis unit needs feedback for two reasons. First, the unit must deter-

mine if it is performing those tasks which most satisfy user needs. In other words, is the information good? Can the user group actually use it? Second, some indication is needed as to whether the user group has taken any specific action as a result of the reports supplied by crime analysis. Feedback on user group actions will thus help crime analysis identify and assess any resultant changes which might occur in offender patterns.

Figure 2-1 depicts the basic elements of crime analysis. The chart emphasizes the relationship between inputs, analysis, and outputs.

C. Prerequisites for Establishing a Crime Analysis Unit

The administrator who is considering implementing a new crime analysis unit must first consider a number of fundamental issues: formal administrative support; organizational placement; staffing; and a method of guaranteeing the integrity of input information.

Formal administrative support pertains to the manner in which a new crime analysis unit is introduced to the agency personnel. Theoretically, it is possible for a crime analysis unit to operate without the enthusiastic support of the administrative staff. However, experience has shown that without administrative support a considerably longer period of time is required before user groups gain confidence in the judgment and the capabilities of crime analysis personnel. As a consequence, it takes longer for the unit to reach an optimum level of operational effectiveness.

The administrative staff can help insure the unit's success by carefully educating and "selling" potential user groups on the merits and the utility of crime analysis. However, extreme care should be taken in such an approach, for there can be as many hazards in being overly assertive as there are in neglecting the unit entirely.

The administration can further demonstrate support by ensuring that early successes are adequately reported throughout the agency. Finally, support can be shown through a departmental directive, or general order, which carefully delineates the organizational structure, responsibilities, goals, functions, and accountability of the crime

analysis unit. The unit then becomes "official".

1. *Organizational Placement.* One of the most surprising discoveries made in researching information for this handbook was the wide diversity in which crime analysis units were located within various agencies' organizational structures. For example, the Oakland Police Department has their unit in the Preventive Services Division, Bureau of Field Operations (patrol function); the Chicago Police Department has their unit as a function of the Detective Division; the Kansas City, Missouri, Police Department has a special unit attached to a crime suppression group. However, *most* of the departments have the crime analysis unit as part of a research and planning division, and located organizationally close to the head administrator. During onsite visits with these agencies, almost without exception, the crime analysis unit commanders adamantly supported the current manner of their organizational posture.

Further research indicates that there are obvious advantages and disadvantages to each of the possible placement considerations. As a result, the research team concludes that there may not be an absolute "right" way the unit must be organizationally placed. As a practical matter, the crime analysis unit should be where "*it will work best*". In other words, if the initial organizational posture does not achieve the desired results, the administrator may have to relocate the unit where it will gain greater attention by user groups.

Some considerations that administrators should consider in organizational placement are as follows:

- Access to user
- Physical location
- Objectives of crime analysis
- Neutrality (the work of the crime analysis unit should not be captured by *one* user group)
- Availability of resources
- Management support
- Interest of chief
- Quality of personnel
- Organizational philosophy

If a crime analysis function does not currently exist, there is an advantage in placing the new function high in the organizational structure, thereby providing the necessary support from top management. This is an important step in the stage of

FIGURE 2-1
Crime Analysis Information Flow

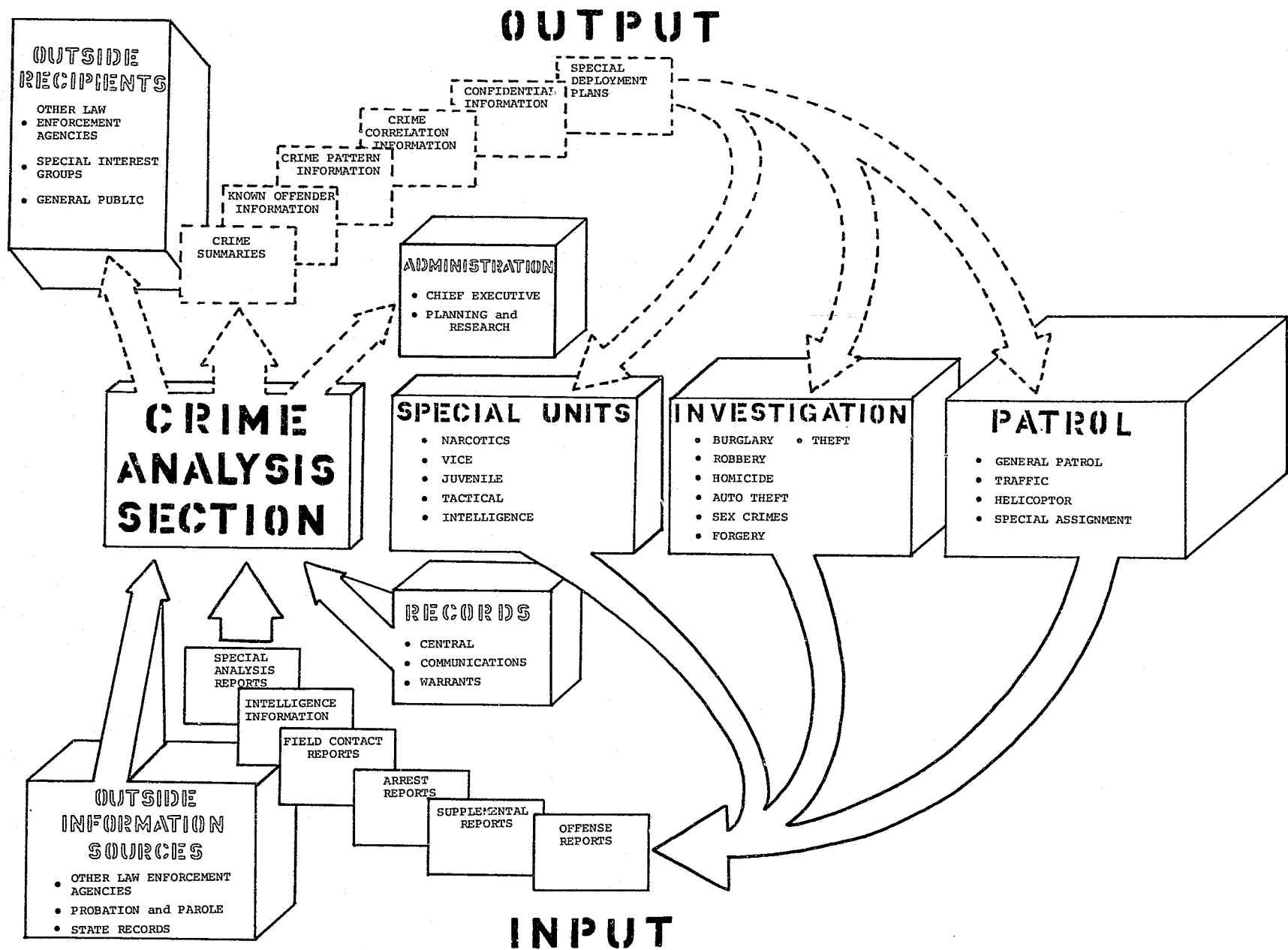


FIGURE 2-2
Possible Organizational Placements for the Crime Analysis Unit

	Advantages	Disadvantages
<p>A.</p> <pre> graph TD COP[Chief of Police] --- PR[Planning & Research*] COP --- OU[Operating Units] </pre> <p>*With crime analysis responsibility</p>	<ul style="list-style-type: none"> ● Strong administration backing 	<ul style="list-style-type: none"> ● Generally limited hours of operation ● Limited information communication with patrol officers ● Limited information feedback from detectives
<p>B.</p> <pre> graph TD COP[Chief of Police] --- FO[Field Operations] COP --- AS[Administration Services] COP --- CA[Crime Analysis] </pre>	<ul style="list-style-type: none"> ● Strong administrative control ● Direct communications with administrative users 	<ul style="list-style-type: none"> ● Limited hours of operation ● Limited informal communications with patrol officers ● Limited informal feedback from detectives
<p>C.</p> <pre> graph TD COP[Chief of Police] --- FO[Field Operations] FO --- CA[Crime Analysis] FO --- P[Patrol] </pre>	<ul style="list-style-type: none"> ● Greater participation by individual patrol officers ● Good informal feedback as to unit effectiveness 	<ul style="list-style-type: none"> ● Limited informal feedback from detectives
<p>D.</p> <pre> graph TD COP[Chief of Police] --- DD[Detective Division] COP --- CA[Crime Analysis] </pre>	<ul style="list-style-type: none"> ● Usually good informal communication between detectives working on cases involving common suspects and/or similar crimes ● Good participation and reliance on section by detectives 	<ul style="list-style-type: none"> ● Usually limited hours of operation ● Information tends to be restricted to detectives ● Inadequate feedback to patrol regarding their input contributions ● Detectives subject to changes in case load, can cause dissemination function neglect ● Analysis tends to be geared solely for apprehension purposes ● Tends to alienate patrol and tactical line supervisors

developing a crime analysis operation. Further, many existing crime analysis operations began as part of a planning and research division reporting directly to the chief of police or one of his immediate assistants. Ideally, a crime analysis operation is a staff unit under the field operations bureau. Preferably, it should report directly to the bureau commander of field operations. Figure 2-2 depicts varying organizational placement strategies.

In summary, then, it can be said that the crime analysis unit should be placed high enough in the organizational structure to allow maximum utilization of informational flow and resource development. This is probably best done by having the unit report directly to a commander in the field operations bureau.

2. *Staffing the Crime Analysis Unit.* The factor which most determines the success or failure of a crime analysis unit is its person-

nel. The manner in which user groups perceive the crime analysis staff, and the degree of trust that they place in it, will have tremendous impact on the success of a newly-formed unit. Therefore, it is desirable that considerable attention be given to the selection of personnel.

The crime analysis commander should possess certain attributes. He must have the ability to get along with people and must be respected as to his integrity and confidence in police line operations.

There are a number of variable factors which will act as determinants on the "size" level of the staff. For our purposes, it is useful to identify those variables and to examine the characteristics of each.

- *Agency Objectives for Crime Analysis.* More ambitious program objectives require more staff to perform the tasks. In this sense, the administrator may have to "balance" crime analysis goals with budgetary constraints—particularly when the program is new, and yet unproven. If, for example, the entire crime analysis unit staff of three analysts and a clerk is required to fulfill just the needs of the investigative user group, there would be time remaining to address the needs of the patrol or the administrative user groups. When user requirements exceed staff capabilities, the agency administrator may have to set the priorities for the crime analysis function, and in so doing establish a "management by objectives" principle.

- *Crime Type and Volume.* The scope of criminal activity will vary from region to region in terms of the types of offenses which are committed, also their frequency of occurrence. Both of these factors will affect the number of personnel involved in the analysis process. For example, a metropolitan city may be inundated with robberies, commercial burglaries, and auto thefts. As a consequence, their crime analysis staff will be considerably larger than that of the farming community where crime analysis is concentrated on fewer incidences of crime scattered over a sparsely populated area. The difference becomes even more evident when further compared to the operation of a small mountain county where crime analysis is greatly affected by seasonally influenced crime, i.e., winter burglaries of mountain cabins.

- *The Numerical Size of the Agency.* If the agency administrator intends to staff the crime analysis unit with "in house" person-

nel, the overall number of sworn officers may limit the size of the unit. This is particularly evident in smaller agencies where reassignment of two or three officers to crime analysis would severely affect the operating strength of an operations unit. Conversely, the overall number of operations personnel will contribute to the volume of crime reports which are generated, and which ultimately must be processed by the crime analysis unit. This becomes particularly important if crime analysis also has as one of its responsibilities the "quality control" function of reviewing crime reports and arrest reports.

- *Use of Mechanical Aids and Computers.* The hardware which is employed to store crime analysis information will also contribute to the staff composition. If, for example, devices, such as computers, are employed in storing of data elements, then specially-trained personnel also may be necessary—such as key punch operators or computer programmers. On the other hand, a sophisticated system of manual files with extensive indexing and cross-referencing may require a larger number of clerks for updating and maintenance. It is desirable that as many of the filing tasks as possible be delegated to clerical personnel, freeing the sworn officers or trained analyst to concentrate his efforts on crime analysis.

- *Degree of Crime Analysis Sophistication.* The use of mechanical data storage devices is tied closely with the level of crime analysis sophistication. This would pertain not only to the quantity of data elements which are stored, but also apply to the various types of analytical processes which are used to compare the MO elements of one crime to another, and then to compare them with known offenders. The more complex the crime analysis operation, the greater the need for larger numbers of officers or analysts.

- *Hours of Operation.* Finally, staff size is directly related to the number of hours devoted daily to the crime analysis operation. In other words, an 8-hour day operation will probably require fewer personnel than will a 24 hour operation.

It should be evident that many of the above variables are not only inter-related but also mutually dependent. They will have an important impact on the size of the staff and the types of specialists needed and should be

of major concern when staffing a crime analysis unit.

3. *Selection Considerations for Staff.* The qualification standards and selection procedures for clerks, secretaries, programmers, and key punch operators are generally set out elsewhere in established personnel practices and, therefore, they will not be included here. However, distinctions will be made between sworn officers who are assigned to crime analysis duties and the research analyst with no prior law enforcement experience.

Under optimum conditions, crime analysis units should be staffed with representatives from each of the user groups, particularly from patrol and investigation. By so doing, the staff will provide the unit with immediate knowledge of what is "current" in terms of operational problems, present operating procedures, and specific needs. Moreover, it also establishes an important informal communications link and rapport between the crime analysis unit and the working level of operations personnel. It is equally recommended that the officers selected for crime analysis duty be rotated from the unit after a maximum period of three years. Personnel rotations are desirable to gain fresh viewpoints and new ideas. Moreover, new per-

sonnel provide fresh insights on offender activity.

It is also important that crime analysis duties not be categorized as a "dead end" or a "retirement job". If possible, assignment to the unit should be made as an integral part of an officer's career development program. The Chicago Police Department Crime Analysis Unit utilizes patrolmen who are about to be promoted to a detective classification. In so doing, the assignments become an important stepping stone to the individual's career.

Officers who are applying for positions in the crime analysis unit should submit at least three reports of crimes in which they conducted the investigations or contributed substantially to them. These reports should be evaluated in terms of the candidates' attention to detail and written expression. It is recommended that potential candidates be given an oral interview and a practical aptitude test.

An excellent means of establishing analytical skills would be to provide the candidate with five to ten crime reports with similar MO characteristics. Applicants' ability to correlate offenses, identify similarities, or reach conclusions should provide considerable insight to their potential. Essential qualities to

TABLE 2-1
Criteria for Selection of Crime Analysis Unit Staff

Essential	Highly Desirable	Desirable
1. Integrity Honesty Personal candor Realistic about self	1. Flexibility Nondogmatic Broad range of interests Openminded	1. Perseverance Not easily discouraged or frustrated
2. High intellectual capacity Alertness Inquisitive mind Imaginative	2. Special motivation Draws satisfaction from problem solving Particular desire to be intelligence officer	2. Planning skill Good manager of time
3. Analytical aptitude Thinks logically Capacity to synthesize Capacity to hypothesize	3. Articulate Writes well and concisely Speaks well and concisely	3. Self-discipline The "self-starter" personality
4. Meticulousness Thorough Pays attention to detail Precise in handling data	4. Resourcefulness The "digger" type "Where there's a will, there's a way"	4. Cooperativeness Capacity to work well with others
		5. Fast learner Quick response capability

Essential characteristics. Should be considered just that; the candidate who appears weak on any one of the characteristics should probably not be appointed.

Highly Desirable-Desirable characteristics. Should be considered as complementing the other qualities, and thus not all of them are necessary for successful careers in crime analysis. Trade-offs are possible within each "bundle" of Highly Desirable and Desirable characteristics, and between the two "bundles".

A less well developed capacity in one category can be made up for by great strength in one or more of the others.

Forceful and skillful management can offset some weakness in the secondary characteristics.

Subsequent training can be applied in some cases to turn a weakness into a strength.

look for in screening applicants are imagination and perceptiveness. Candidates must also have the ability to identify problems, isolate the contributory elements, and use good judgment to reach reasonable conclusions.

Godfrey and Harris in their manual, "Basic Elements of Intelligence," prepared an excellent outline of personality traits considered desirable in the intelligence unit staff. Inasmuch as crime analysis and intelligence analysis are linked by a common process of examining and analyzing criminal activity, it is natural that the desired personality traits for both groups of analysts be very similar. Table 2-1 is from the Godfrey and Harris publication, only the heading has been changed.

Finally, agency administrators should con-

sider broadening the base of the crime analysis staff by employing an analyst with research skills, especially when such skills are not available in the unit or within the agency. The research analyst can give "balance" to the staff by bringing together the problems of crime, the experiences of seasoned officers, and the individuals with training in research methodology.

Contributions provided by the research analyst can be of considerable importance. They can aid in design considerations for MO data storage systems which would simplify retrieval and analysis of criminal events. Furthermore, the research analyst can conduct special request studies, statistical analyses, evaluations of the crime analysis program, and projection studies of future criminal activity areas.

Chapter III.

DATA BASE

THE BASIC TOOL of a crime analysis unit (CAU) is data. Data in this document will be used to mean "information", although here it will more generally describe an identifiable item(s) of information. A crime report is a complete set of the available information concerning a crime. Within the informational content of the report are data elements—pieces of information which, when combined, make up the informational content of the report. An example of this is the crime report used by the Palm Springs Police Department in California (Figure 3-1). This report contains some 68 possible data elements concerning a crime. This exhibit is also representative of the California Standardized Crime Report form.

The composite of data that is available and of concern to a user group, in this case an analysis section, is called a data base. Data base includes all data of concern to a user, or more specifically, it refers to the data that the user has captured and has available for analysis. Here we will be considering a crime analysis unit's data base in two contexts, (1) as that data it needs for analysis and that has been provided by various agencies within the criminal justice community, and (2) as that data it has been able to extract from information already supplied to the analysis unit by such agencies. The external data base (that available from other units) will be generally referred to as data sources.

The utility of this data is determined by its validity, reliability, completeness and accuracy. Therefore, the crime analysis section must have a thorough understanding of the data it is using to carry out its analysis processes. If the data are not accurate and complete—i.e., data have not been consistently extracted with precision and thoroughness—there may be little confidence attached to the accuracy of the outputs of analysis. The validity of data is directly controlled by the reliability of the information. In effect,

the validity of data is determined by an analysis of the completeness, accuracy, and reliability of the information to be used. The output of a crime analysis unit is only as good as the raw data that is collected, pertinent information extracted, and then analyzed. The collection process is the key factor in this procedure. An analysis section that simply accepts data that is supplied to it, without understanding the collection and handling process of the data received, may be working with invalid information that can produce no meaningful results. Thus, a crime analysis unit must identify its data sources, have a thorough understanding of the data collection process used by the criminal justice unit supplying such data, and determine the validity of the basic data.

CONTINUE

A. Identification of Data Sources

A crime analysis section is not a source data collection unit, except in specific short term analytical projects, and must rely on the various law enforcement agencies to supply it with relevant information. The law enforcement divisions depicted in Figure 3-2 are the usual suppliers of information to the CAU.

The police agency functions that supply the CAU with most of its data are depicted in Figure 3-3.

Table 3-1 indicates some of the reports that are associated with the police divisions that supply information to a crime analysis unit.

Some of the agencies outside the parent law enforcement unit that supply information are shown in Figure 3-4.

The crime analysis unit extracts its information from reports which are not prepared primarily for analysis purposes. These data sources are all independent of the crime analysis unit and usually supply data to the unit as a secondary process in their function. The prime function for collecting data at a crime scene is for apprehension and prosecution, not crime analysis.

In only a few instances the data sources of a crime analysis section will directly collect data for crime analysis. These instances include the use of special crime analysis collection forms by a field unit or detective. Direct collection of data for crime analysis may also be the result of a successfully redesigned analysis section crime report

FIGURE 3-1
Palm Springs Police Department Crime Report

PALM SPRINGS POLICE DEPARTMENT -- 3311										D R		
2. CODE SECTION		3. CRIME			4. CLASSIFICATION				5. REPORT AREA			
6. DATE AND TIME OCCURRED-DAY			7. DATE AND TIME REPORTED		8. LOCATION OF OCCURRENCE							
9. VICTIMS NAME LAST, FIRST, MIDDLE (FIRM IF BUSINESS)					10. RESIDENCE ADDRESS			11. RES PHONE				
12. OCCUPATION		13. RACE-SEX	14. AGE	15. DOB		16. BUSINESS ADDRESS (SCHOOL IF JUVENILE)			17. BUS PHONE			
CODES FOR V=VICTIM W=WITNESS P=PARENT RP=REPORTING PARTY DC=DISCOVERED CRIME BOXES 20 AND 30										18. CHECK IF MORE NAMES IN CONTINUATION <input type="checkbox"/>		
19. NAME-LAST, FIRST, MIDDLE				20. CODE	21. RESIDENCE ADDRESS			22. RESIDENCE PHONE				
23. OCCUPATION		24. RACE-SEX	25. AGE	26. DOB		27. BUSINESS ADDRESS (SCHOOL IF JUVENILE)			28. BUSINESS PHONE			
29. NAME-LAST, FIRST, MIDDLE				30. CODE	31. RESIDENCE ADDRESS			32. RESIDENCE PHONE				
33. OCCUPATION		34. RACE-SEX	35. AGE	36. DOB		37. BUSINESS ADDRESS (SCHOOL IF JUVENILE)			38. BUSINESS PHONE			
MODUS OPERANDI (SEE INSTRUCTIONS)												
39. DESCRIBE CHARACTERISTICS OF PREMISES AND AREA WHERE OFFENSE OCCURRED												
40. DESCRIBE BRIEFLY HOW OFFENSE WAS COMMITTED												
41. DESCRIBE WEAPON, INSTRUMENT, EQUIPMENT, TRICK, DEVICE OR FORCE USED												
42. MOTIVE-TYPE OF PROPERTY TAKEN OR OTHER REASON FOR OFFENSE												
43. ESTIMATED LOSS VALUE AND/OR EXTENT OF INJURIES-MINOR, MAJOR												
44. WHAT DID SUSPECT/S SAY-NOTE PECULIARITIES												
45. VICTIMS ACTIVITY JUST PRIOR TO AND/OR DURING OFFENSE												
46. TRADEMARK-OTHER DISTINCTIVE ACTION OF SUSPECT/S												
47. VEHICLE USED-LICENSE NO.-ID NO.-YEAR-MAKE-MODEL-COLORS (OTHER IDENTIFYING CHARACTERISTICS)												
48. SUSPECT NO. 1 (LAST, FIRST, MIDDLE)				49. RACE-SEX	50. AGE	51. HT	52. WT	53. HAIR	54. EYES	55. ID NO. OR DOB	56. ARRESTED YES <input type="checkbox"/> NO <input type="checkbox"/>	
57. ADDRESS, CLOTHING AND OTHER IDENTIFYING MARKS OR CHARACTERISTICS												
58. SUSPECT NO. 2 (LAST, FIRST, MIDDLE)				59. RACE-SEX	60. AGE	61. HT	62. WT	63. HAIR	64. EYES	65. ID NO. OR DOB	66. ARRESTED YES <input type="checkbox"/> NO <input type="checkbox"/>	
67. ADDRESS, CLOTHING AND OTHER IDENTIFYING MARKS OR CHARACTERISTICS										68. CHECK IF MORE NAMES IN CONTINUATION <input type="checkbox"/>		
REPORTING OFFICERS				RECOMMENDING OFFICER			TYPED BY		DATE AND TIME		ROUTED BY	
FURTHER ACTION <input type="checkbox"/> YES <input type="checkbox"/> NO		COPIES TO		<input type="checkbox"/> DECEIVE	<input type="checkbox"/> JUVENILE	<input type="checkbox"/> DIST ATTNY	<input type="checkbox"/> SO/BD	<input type="checkbox"/> CII	<input type="checkbox"/> PATROL	<input type="checkbox"/> OTHER	REVIEWED BY	DATE

form which provides the specific data elements required for analysis.

Where practical, the crime analysis section should become involved in determining the data to be collected by the units of its organization. Thus, the analysis unit can improve its analysis process by broadening the scope of its analysis and increasing the validity of its output.

1. *Departmental Data Sources.* The majority of the data analyzed by a crime analysis unit will come from its own police department. This data will be the most meaningful to crime analysis, as the analysis section can more readily manipulate the data being collected, influence its collection form, and both determine and attempt to regulate the quality of such data. The data received from departmental sources may be a formal written departmental record or informal informational data.

2. *Written Departmental Records.* The basic written records for the collection of information used by a crime analysis section are the

offense reports. Such reports are submitted by the officer who initially responds to the call for service at a crime scene. Other reports that supply additional or supplemental information include arrest reports, follow-up reports, field contact or interrogation reports, complaint/dispatch reports, and various operational logs.

a. *Initial Crime Reports.* The initial crime report is the basic information concerning location, victim, suspects, evidence, witnesses, multiple offenses, MO, etc., and may be the only report associated with crimes that remain uncleared. An initial crime report may be an offense report, report of a crime against a person, report of a crime against property, report of a crime against a vehicle, etc. Data from crime reports will be used in nearly every analysis of crime carried out by a crime analysis unit; therefore, special attention should be paid to these reports. The amount of detail collected at the scene of a crime will greatly affect the analysis capabilities of an analysis section. Many crime re-

FIGURE 3-2
Crime Analysis Information Sources Within the Agency

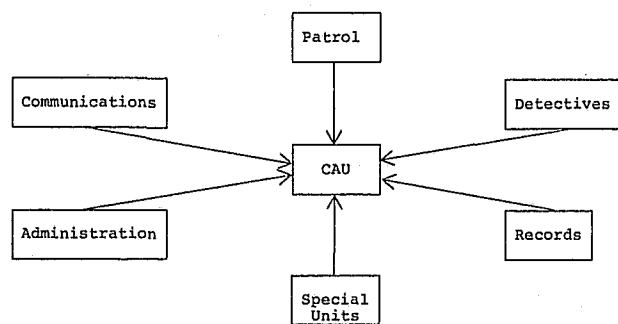


FIGURE 3-3
Crime Analysis Information Sources by Function

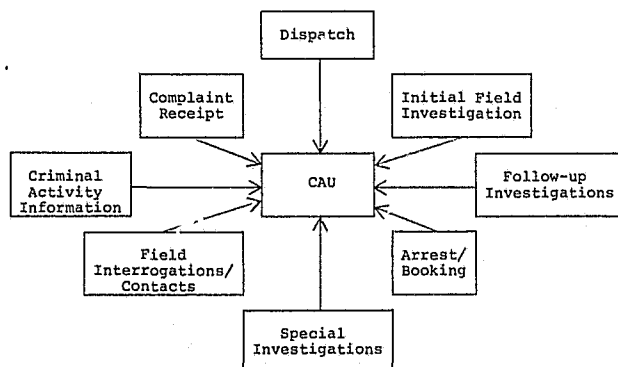
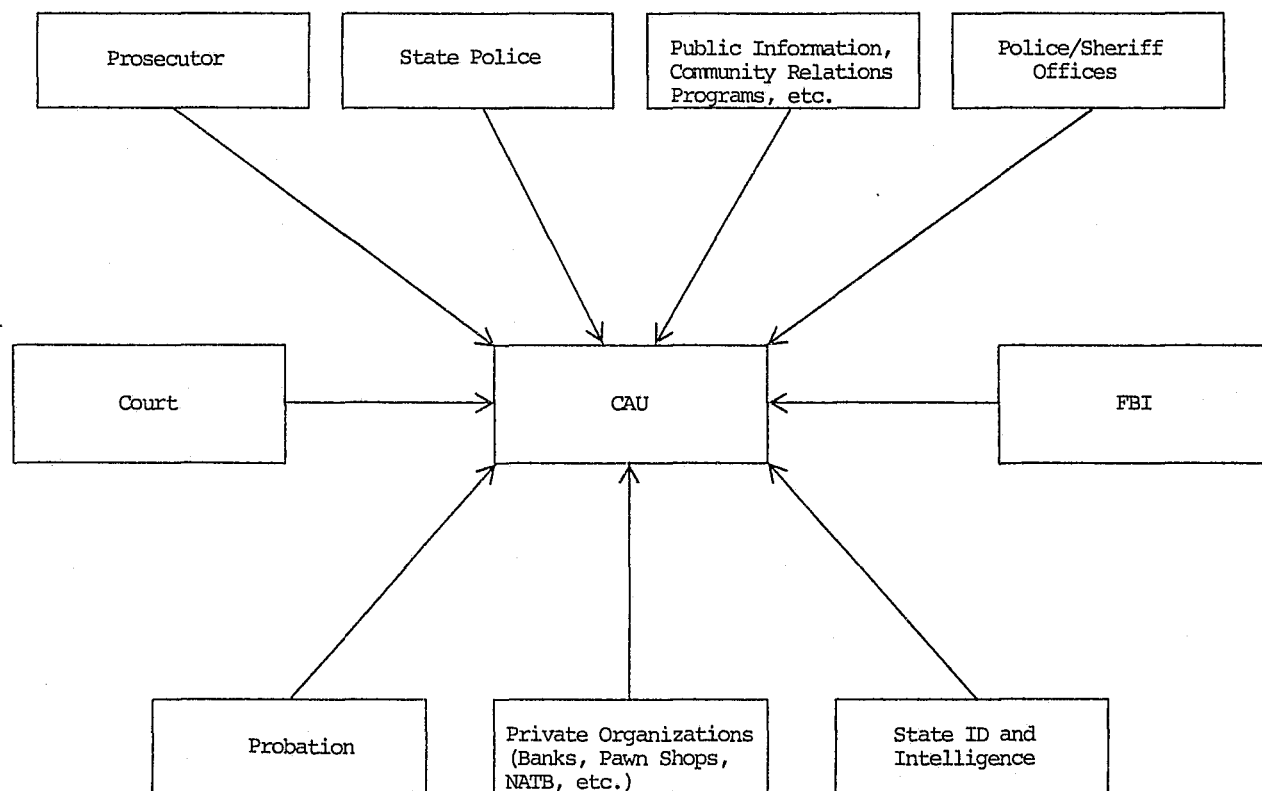


TABLE 3-1
Some Crime Analysis Source Reports by Department

DEPARTMENT	REPORTS SUPPLIED
Communications	Complaint-Dispatch Reports NCIC/State Crime Data Teletype Reports and Requests
Patrol	Initial Crime Report Follow-up Crime Report Field Interrogation Reports Crime Against Person Report Crime Against Property Report Stolen Vehicle Reports Worthless Document Reports Arrest Reports
Detectives	Initial Crime Report Follow-up Crime Report Field Interrogation Reports Crime Against Person Report Crime Against Property Report Stolen Vehicle Reports Worthless Document Reports Arrest Reports
Special Units	Any of the Patrol or Detective Reports Special Crime Reports Crime Intelligence Reports
Records	Statistical Data Warrant Data Distribution of Department Crime Reports Teletype Reports
Administration	Statistical Data Special Crime Data

FIGURE 3-4
*Outside Departmental Sources of Crime Analysis
 Information*



ports are mostly narrative in nature and leave the amount of description of the crime scene to the individual officer (see Figure 3-5), while other offense reports require that the officer respond to specific questions or data categories about a crime (see Figure 3-6). This detail of specific data elements and data element descriptors is especially rigid in the check-off type reports as illustrated in Figure 3-7. The narrative approach can be a problem for the analysis unit in that the data presented are not in an easily extractable form, and no data collection standards are presented to the officer as he is recording the information.

b. *Follow-Up or Supplemental Reports.* These reports are usually narrative in nature and add information to that collected during the initial investigation. The reports may come from either patrol, detective or special units. These reports include different categories of information, including changes in crime classification of the event, case disposition, and evidence information. They may provide the crime analysis unit with data elements about a crime that were missing from the initial crime report. The analysis section may request such additional informa-

tion from patrol or detectives and have it supplied as a follow-up report.

c. *Arrest Reports.* Most of the reliable data on suspects or persons of interest to the analysis unit will come from the arrest process. Included in arrest reports are physical descriptions of the individual, current place of residence, drivers license, social security number, automobile owned, etc. These data are the basis of a known offender file.

d. *Field Contact Reports.* Field contact reports can be a valuable tool to the crime analysis unit. These reports establish the movements of persons of interest, develop the existence of associations among suspects, and help define what "people" activity is occurring in various areas of the city. The relative validity of field contact report data must always be kept in mind, as they are not always exact or complete. A well-designed field contact card is presented as Figure 3-8.

e. *Complaint/Dispatch Reports and Operational Logs.* The utility of complaint/dispatch reports and operational logs to crime analysis will vary with the individual reports that are used by various departments. Only in cases where the reports contain the total

FIGURE 3-5
Narrative Crime Report Example

POLICE DEPARTMENT							
OFFENSE REPORT							
NAME OF COMPLAINANT, VICTIM OR FIRM			ADDRESS		PHONE NO.		
TYPE OF OFFENSE			LOCATION OF OFFENSE				
DATE AND TIME OF OFFENSE		DATE AND TIME ARRESTED		DATE AND TIME BOOKED		ARREST NO.	
NAME OF PERSON ARRESTED OR SUSPECTED			ADDRESS				
RACE	SEX <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE		AGE	HEIGHT	WEIGHT	COLOR EYES	COLOR HAIR
NAME OF PERSON ATTACKED			PREMISES ATTACKED				
DETAILS: (Report all facts in logical sequence)							
REPORT MADE BY				DATE	TIME		
OFFICER(S) ASSIGNED				DATE	TIME		
APPROVED AND ASSIGNED BY				DATE	TIME		

FIGURE 3-6
Data Specific Crime Report Example

PUBLIC SAFETY DEPT.
DADE COUNTY, FLORIDA

										<input type="checkbox"/> ROBBERY <input type="checkbox"/> CRIME GENERAL <input type="checkbox"/> CRIME AGAINST PERSON		2. CASE NO.					
4A. OFFENSE				10. ADDRESS OF OCCURRENCE				14. VICTIM'S NAME				AGE	RES. PHONE				
11. RADIO NO.	5. DAY	6. DISP.	7. ARR.	8. IN SERV.	74. DATE	ADDRESS				SEX	BUS. PHONE						
9. HOW ASSIGNMENT RECEIVED			<input type="checkbox"/> RADIO <input type="checkbox"/> SUPERVISOR <input type="checkbox"/> CITIZEN		<input type="checkbox"/> REQUESTED BY OFFICER	64. WEATHER	1. VICE VIOLATION		15. REPORTED BY		AGE	RES. PHONE					
17. WITNESSED BY				ADDRESS		AGE	RES. PHONE	16. DISCOVERED BY				SEX	BUS. PHONE				
49. OWNER				ADDRESS		AGE	RES. PHONE	4. UCR CLASSIFICATION				9. DATE & TIME OF OCCURRENCE					
63. VICTIM'S OCCUPATION				42. TYPE OF PREMISES		128. PROTECTIVE DEVICE		135. VICTIM'S SOBRIETY		34. WHAT TOOL, WEAPON OR MEANS USED TO COMMIT CRIME							
35. HOW USED TO COMMIT CRIME				37. GENERAL TYPE OF PROPERTY TAKEN		130. VALUE		45. TRADE MARK OR UNUSUAL EVENT (MODUS OPERANDI)									
31. <input type="checkbox"/> SUBJECT <input type="checkbox"/> JUV. <input type="checkbox"/> SUSPECT		AGE-RACE-SEX		NAME:		PH:		INCARCERATED		WHERE		OCCUPATION		137. DISGUISES			
84. VEHICLE USED		<input type="checkbox"/> BY OFFENDERS <input type="checkbox"/> BY VICTIM		MODEL		MAKE		YEAR		BODY STYLE		53. COLOR		52. LIC. NO. STATE YEAR		55. IDENTIFYING MARKS	
136. NO. OF OFFENDERS		58. WHAT DID OFFENDERS SAY				67. HOSPITAL (14)		95. CONDITION									
72. HOW OFFENDERS APPROACHED & FLED				131. KIND OF PROPERTY RECOVERED				132. VALUE		133. RECOVERY-FULL, PARTIAL							
41. PERSON OR UNIT NOTIFIED				TIME		71. VICTIM REFERRED TO				38. EXACT LOCATION OF VICTIM OR PROPERTY							
65. NATURE OF INJURIES & LOCATION ON BODY						69. ATTENDING PHYSICIAN				134. CHANGE OF VALUE							
96. NEXT OF KIN NOTIFIED: <input type="checkbox"/> YES <input type="checkbox"/> NO				BY WHOM				70. WILL VICTIM PREFER CHARGES <input type="checkbox"/> YES <input type="checkbox"/> NO				90. PARENT (IF 14 IS JUVENILE)					
46. PROPERTY RECEIPT <input type="checkbox"/> YES <input type="checkbox"/> NO		73. FURTHER POLICE ACTION REQUIRED <input type="checkbox"/> YES <input type="checkbox"/> NO		HAS VICTIM BEEN REQUESTED TO VIEW MUG FILES <input type="checkbox"/> YES <input type="checkbox"/> NO		10A. ADDRESS DISPATCHED TO											
60. CONTACT INFORMATION																	
20. REPORTING OFFICER'S NAME (PRINT)				BADGE NO.		13. DISTRICT		19. APPROVED BY		21. PERSON REPORTING CRIME (SIG.)							
(A)																	
(B)						36. GRID				29. REPORT PREPARED BY (SIGNATURE)							
28. REFERRED TO				SIGNATURE		27. RECORDED BY		25. INDEXED BY		24. STATISTICS							
30. DISPOSITION		<input type="checkbox"/> CLEARED BY ARREST <input type="checkbox"/> UNFOUNDED		<input type="checkbox"/> EXCEPTIONALLY CLEARED <input type="checkbox"/> PENDING		ASSIGNED TO		BADGE NO.		DATE							
						SUPERVISOR											

114.02-33 (REV. 10/71)

FIGURE 3-7
Checkoff Offense Report Forms

ROBBERY CASE REPORT/CHICAGO POLICE

1. OFFENSE CLASSIFICATION <input checked="" type="checkbox"/> ARMED ROBBERY (OR ATTEMPT) 200		2. BEAT/UNIT ASSIGNED		3. BEAT OF OCCURRENCE	
5. ADDRESS OF OCCURRENCE		4. DATE OCCURRED APT. NO. DAY MO. YR. TIME		6. DATE REPORTING OFFICER ARRIVED DAY MO. YR. TIME	
9. NO. OF OFFENDERS		SEX RACE AGE HEIGHT WEIGHT HAIR EYES COMP.		CLOTHING DESCRIPTION	
10. WEAPON DISPLAYED 1. <input type="checkbox"/> REVOLVER 2. <input type="checkbox"/> ALIHO PISTOL 3. <input type="checkbox"/> RIFLE 4. <input type="checkbox"/> SHOT GUN 5. <input type="checkbox"/> KNIFE 6. <input type="checkbox"/> OTHER		11. UNUSUAL CHARACTERISTICS OF CRIME (TRADEMARK)		12. SOBRIETY OF VICTIM 13. VICTIM'S OCCUPATION	
14. IF VICTIM HOSPITALIZED, STATE WHERE		15. NAME OF DE. ECIVE OR Y. O. NOTIFIED		16. EVID. TECH. OR CRIME LAB. NOTIFIED	
17. OFFENDER'S VEHICLE		18. TYPE OF LOCATION WHERE OCCURRED		19. IS LOCATION CHECKED	
20. VICTIM'S NAME (FIRM NAME IF BUSINESS)		21. HOME ADDRESS (IF BUSINESS)		22. HOME PHONE	
24. PERSON REPORTING CRIME TO POLICE (IF VICTIM, PRINT "VICTIM")		25. HOME ADDRESS (IF VICTIM, PRINT "DMA" IN BOXES 24 TRND 27)		26. HOME PHONE	
28. WITNESS NAME (IF MORE THAN ONE, USE NARRATIVE)		29. HOME ADDRESS		30. HOME PHONE	
32. PROPERTY TAKEN DESCRIBE IN "NARRATIVE" ALL PROPERTY TAKEN		33. PROPERTY RECOVERED, DESCRIBE PROPERTY RECOV. & LIST PROP. INVENTORY NOS. IN "NARRATIVE"		34. NARRATIVE (GIVE DESCRIPTION OF HOW CRIME WAS COMMITTED, IF COMPLAINT IS UNFOUNDED EXPLAIN WHY.)	
35. EXTRA COPIES REQUIRED (NO. & RECIPIENT)		36. DATE INVESTIGATION COMPLETED		37. REPORTING OFFICER	
39. SUPERVISOR APPROVING		40. DATE INVESTIGATION COMPLETED		41. REPORTING OFFICER	

BURGLARY CASE REPORT/CHICAGO POLICE

1. OFFENSE CLASSIFICATION (ONE SQUARE MUST BE CHECKED) <input type="checkbox"/> FORCIBLE ENTRY <input type="checkbox"/> UNLAWFUL ENTRY 400 (NO FORCE) <input type="checkbox"/> ATTEMPTED FORCIBLE ENTRY 270		2. BEAT OR UNIT ASSIGNED		3. BEAT OF OCCURRENCE	
5. ADDRESS OF OCCURRENCE		6. DATE OCCURRED APT. NO. DAY MO. YR. TIME		7. PERIOD OF DAY OCCURRED DAY-NIGHT	
9. TYPE OF PREMISES WHERE OCCURRED		10. VICTIM'S NAME (FIRM NAME IF BUSINESS)		11. HOME ADDRESS	
14. PERSON REPORTING CRIME TO POLICE (IF VICTIM, WRITE "VICTIM")		15. HOME ADDRESS (IF VICTIM, WRITE "DMA" IN BOXES 15-17)		16. HOME PHONE	
18. PERSON WHO DISCOVERED CRIME (IF VICTIM, WRITE "VICTIM")		19. HOME ADDRESS (IF VICTIM, WRITE "DMA" IN BOXES 19-21)		20. HOME PHONE	
22. WITNESS NAME		23. HOME ADDRESS		24. HOME PHONE	
25. TOOLS USED IN MAKING ENTRY		27. POINT OF ENTRY (EXAMPLE: FRONT DOOR, BACK DOOR)		28. POINT OF EXIT (EXAMPLE: FRONT DOOR, BACK DOOR)	
29. UNUSUAL CHARACTERISTICS OF CRIME (TRADEMARK)		30. IF RESIDENCE, WHERE WERE OCCUPANTS AT TIME OF BURGLARY		31. NO. OF OFFENDERS	
32. OFFENDER'S NAME		33. OFFENDER'S ADDRESS		34. OFFENDER'S AGE	
34. BURGLAR ALARM ON PREMISES		35. ALARM CIRCUMVENTED		36. EVID. TECH. OR CRIME LAB. NOTIFIED	
37. IF SAFE BURGLARY, METHOD USED		38. VEHICLE YEAR MAKE BODY STYLE COLOR STATE LIC. NO. STATE YEAR OTHER FACIS		39. NAME OF DET. Y.O. NOTIFIED	
42. NARRATIVE (GIVE DESCRIPTION OF HOW CRIME WAS COMMITTED, IF COMPLAINT IS UNFOUNDED EXPLAIN WHY.)		43. EXTRA COPIES REQUIRED (NO. & RECIPIENT)		44. DATE INVESTIGATION COMPLETED	
45. REPORTING OFFICER		46. REPORTING OFFICER		47. SUPERVISOR APPROVING	

crime report and require no additional field report will there be data for use in crime analysis. Where the disposition of certain criminal offenses or activities can be completed on a complaint/dispatch report, these reports must be reviewed by the analysis section. In some instances data on dispatch or citizen complaint cards may indicate criminal activity that is not being actively responded to and reported. An example of a static response would be a "close patrol" of an area or business that has reported suspicious activity in the vicinity.

f. *Special Crime Analysis Data Collection Forms.* In some departments special forms are devised to collect crime analysis data. These are usually aimed at collecting data on a specific type of crime and the analysis is pointed to produce information to bring about positive results in the prevention of the crime and apprehension of suspects. An example of such a form is presented as Figure 3-9. This form is used by the Seaside Police Department in California for its burglary prevention program. The form is filled out by the field officer in addition to his

FIGURE 3-8

Example of a Field Contact Report

1 NAME-LAST NAME FIRST										2 SEX RACE AGE										3 ADDRESS-RESIDENCE										4 PHONE																																																																																																																																																					
5 BIRTHDATE										6 HEIGHT										7 WEIGHT										8 HAIR										9 COMPLEXION										10 SOCIAL SECURITY NO.										11 PLACE EMPLOYED/SCHOOL/UNION LOCAL NUMBER/ETC.										12 USUAL OCCUPATION																																																																																																													
13 1. HAT										14 2. MUSTACHE										15 3. COAT										16 NICKNAME										17 DRESS										18 PROBATION										19 PAROLE																																																																																																																							
20 1. DRIVING										21 OPERATORS LICENSE NO.										22 VEHICLE PECULIARITIES										23 YEAR OF YR										24 MAKE										25 MODEL										26 BODY TYPE										27 COLOR										28 VEHICLE IDENTIFICATION NO.										29 LICENSE NO.										30 1/2 3/4 5/8 3/4 1 1 1/2 1 3/4 2 2 1/2 3 3 1/2 4 4 1/2 5 5 1/2 6 6 1/2 7 7 1/2 8 8 1/2 9 9 1/2 10 10 1/2 11 11 1/2 12 12 1/2 13 13 1/2 14 14 1/2 15 15 1/2 16 16 1/2 17 17 1/2 18 18 1/2 19 19 1/2 20 20 1/2 21 21 1/2 22 22 1/2 23 23 1/2 24 24 1/2 25 25 1/2 26 26 1/2 27 27 1/2 28 28 1/2 29 29 1/2 30 30 1/2 31 31 1/2 32 32 1/2 33 33 1/2 34 34 1/2 35 35 1/2 36 36 1/2 37 37 1/2 38 38 1/2 39 39 1/2 40 40 1/2 41 41 1/2 42 42 1/2 43 43 1/2 44 44 1/2 45 45 1/2 46 46 1/2 47 47 1/2 48 48 1/2 49 49 1/2 50 50 1/2 51 51 1/2 52 52 1/2 53 53 1/2 54 54 1/2 55 55 1/2 56 56 1/2 57 57 1/2 58 58 1/2 59 59 1/2 60 60 1/2 61 61 1/2 62 62 1/2 63 63 1/2 64 64 1/2 65 65 1/2 66 66 1/2 67 67 1/2 68 68 1/2 69 69 1/2 70 70 1/2 71 71 1/2 72 72 1/2 73 73 1/2 74 74 1/2 75 75 1/2 76 76 1/2 77 77 1/2 78 78 1/2 79 79 1/2 80 80 1/2 81 81 1/2 82 82 1/2 83 83 1/2 84 84 1/2 85 85 1/2 86 86 1/2 87 87 1/2 88 88 1/2 89 89 1/2 90 90 1/2																																																																															
31 IN COMPANY WITH (NAME, SEX, RACE, AGE, ADDRESS)										32 1.										33 2.										34 3.										35 4.																																																																																																																																											
36 EXPLAIN REASON FOR STOP, FINDINGS, DISPOSITION.										37										38										39										40																																																																																																																																											
41										42										43										44										45										46																																																																																																																																	
47										48										49										50										51										52																																																																																																																																	
49 DATE										50 TIME										51 BEAT										52 CENSUS										53 SERIAL NO.										54 LOCATION OF CONTACT-HOUSE OR BLOCK NO.-STREET										55 ATTN: DETAIL																																																																																																																							
56 STAT										57 LICENSE NO.										58 ST.										59 YEAR										60 MAKE										61 MODEL										62 BODY TYPE										63 COLOR										64 HGT										65 WT										66 HAIR										67 P.P.										68 DATE										69 HR.										70 SER.										71 SERIAL NUMBER										72 DIV.																			
73										74										75										76										77										78										79										80										81										82										83										84										85										86										87										88										89										90									

FIGURE 3-9
Seaside Police Department Special Crime Analysis Data Collection Form

SEASIDE POLICE DEPARTMENT
 Burglary Data Research Sheet

(Fill out all known information)

REPORT IDENTIFICATION

1. Report # _____ 2. Block # _____ 3. MDR yes no
 (1) (2)

REPORT

4. Date reported _____ a.m. (1)
 (mo) (day) (yr) p.m. (2)
 5. Time reported _____
 6. Watch 1st 2nd 3rd 7. Date committed _____
 (1) (2) (3) (mo) from to (yr)
 (day)

8. Estimated time committed (1) 6:00 a.m.-11:59 a.m. (3) 6:00 p.m.-5:59 a.m.
 (2) 12:00 p.m.- 5:59 p.m. (4) unknown

9. Day of week: Sun Mon Tues Wed Thurs Fri Sat
 (1) (2) (3) (4) (5) (6) (7)

10. Weather condition at time committed (check one in each column)

(1) rain (1) daylight
 (2) fog (2) dusk
 (3) clear (3) dark

11. Reported by: victim neighbor other: _____
 (1) (2) (3) (specify)

AREA OF CRIME

12. Classification: residential commercial automobile
 (1) (2) (3)
other: _____
 (4) (specify)

13. Location of crime: _____
 (House #) (Street #) (Apt. #)

PRECAUTIONARY METHODS

Before burglary, had the victims:

14. Left the lights on yes no 15. Gone on vacation yes no
 (1) (2) (1) (2)

16. If yes to 15, had the paper been cancelled yes no
 (1) (2)

PHYSICAL EVIDENCE

17. Method of Entry (check one in each column)

(1) garage (1) front (1) door (1) picked lock
 (2) house (2) back (2) window (2) forced entry
 (3) commercial (3) side (3) airvent (3) normal
 building (4) roof

18. Latent prints? yes no 19. Tools? yes no IF YES: _____
 (1) (2) (1) (2) (kind)

20. Footprints: yes no 21. Items left at scene? yes no
 (1) (2) (1) (2)

IF YES to 21: Write in article left _____

MERCHANDISE

22. Type of merchandise

(1) money (4) appliance - kitchen
 (2) jewelry (5) appliance - living room
 (3) guns (6) other: _____
 (specify)

23. Value of stolen article(s): \$0-50 \$51-100 \$101-200 \$201-300
 (1) (2) (3) (4)
\$301-400 \$401-500 \$501-600 \$601-700 \$701+
 (5) (6) (7) (8) (9)

SUSPECT APPREHENDED

24. Race: White Black Oriental Mexican Other: _____
 (1) (2) (3) (4) (5) (specify)

25. Age: 16 or below 17-20 21-26 27-35 36 or above
 (1) (2) (3) (4) (5)

26. Sex: male female 27. School attended: _____
 (1) (2) (specify)

28. High school drop out: yes no 29. Gainfully employed yes no
 (1) (2) (1) (2)

30. Is there other relevant information not given above? yes no
 (1) (2)

IF YES: _____
 (specify)

FIGURE 3-10 Denver Police Department Victim Analysis Report

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1) OFFENSE REPORT NUMBER		2) OFFENSE AS ORIGINALLY CODED		3) 1ST OFF. (where one or more reported)		2ND OFF.		3RD OFF.		4) VICTIM MARITAL STATUS		5) FLOOR LEVEL OF CRIME OCCURRENCE 'N BLDG.		6) NUMBER OF PERSONS INVOLVED IN THE COMMISSION OF THE OFFENSE		7) ELAPSED TIME BETWEEN CRIME OCCURRENCE & REPORT TO POLICE		8) SPECIFIC LOCATION OF OFFENSE IF IN RESIDENTIAL DWELLING					
				0 NOT MARRIED		0 NOT IN BUILDING		0 BROOKRM		0 NOT REPORTED		0 DID NOT OCCUR IN RESIDENCE											
				1 WARRIED		1 GROUND FLOOR		1 ONE		1 IMMEDIATELY		1 NOT REPORTED											
				2 SINGLE		2 2ND FLOOR		2 TWO		2 WITHIN 1 HOUR		2 ENTIRE DWELLING, HOUSE, APT., ETC., WAS THE LOCATION											
				3 DIVORCED		3 3RD FLOOR		3 THREE		3 1-12 HOURS		3 REINLCH											
				4 WIDOWER		4 4TH FLOOR		4 FOUR		4 13-24 HOURS		4 BATHROOM											
				5 OTHER (SPECIFY)		5 5TH FLOOR		5 FIVE		5 2-7 DAYS		5 LIVING ROOM											
						6 6TH FLOOR OR ABOVE		6 SIX		6 8-14 DAYS		6 DINING ROOM											
						7 BASEMENT		7 SEVEN		7 15-31 DAYS		7 KITCHEN											
						8 NOT REPORTED		8 EIGHT		8 1-3 MONTHS		8 DEN OR RECREATION ROOM											
								9 NINE OR MORE		9 OVER 3 MONTHS		9 OTHER (SPECIFY)											
25		26		27		28		29		30		31											
9) SPECIFIC LOCATION OF OFFENSE IF ON OR NEAR RESIDENTIAL PREMISES (not inside dwelling)		10) SPECIFIC LOCATION OF OFFENSE IF OCCURRED IN PUBLIC PLACE		11) W/S COMMISSION OF OFFENSE INTERRUPTED OR ABORGED DUE TO		12) VICTIM ACTIVITY PRIOR TO OFFENSE		13) VICTIM INVOLVED IN SOCIAL ACTIVITIES PRIOR TO OFFENSE		14) FIRST SUSPECT BEHAVIOR INDICATING OFFENSE WAS TO OCCUR		15) VICTIM OFFENDER SOCIAL INTERACTION PRIOR TO OFFENSE											
0 DIDN'T OCCUR OUTSIDE OR NEAR RESIDENCE		0 DIDN'T OCCUR IN PUBLIC AREA		0 NOT INTERRUPTED/ABORGED		0 NOT REPORTED		0 NOT INVOLVED IN SOCIAL ACTIVITY		0 PRIOR INDICATION NOT APPARENT/APPLICABLE		0 NOT REPORTED											
1 NOT REPORTED		1 NOT REPORTED		1 NOT INTERRUPTED/ABORGED		1 ABSENT FROM SCENE FOR ONE DAY OR LESS		1 VICTIM DRINKING ALCOHOL AT RESIDENTIAL GATHERING		1 THREAT OF BODILY HARM		1 NOT APPLICABLE											
2 PORCH/OUTSIDE ENTRY		2 ON STREET (not in vehicle)		2 NOT REPORTED		2 ABSENT FROM SCENE FOR TWO OR MORE DAYS		2 VICTIM DRINKING IN PUBLIC BAR/LOBBY/LOBBY		2 THREAT OF PROPERTY LOSS		2 VICTIM & OFFENDER PRESENT IN GROUP SOCIAL ACTIVITY NOT DIRECTLY INTERACTING											
3 RESIDENTIAL YARD		3 ON STREET (in vehicle)		3 VICTIM CHIEF		3 WALKING IN RESIDENTIAL AREA		3 VICTIM HAD NOT BEEN DRINKING BUT PRESENT AT RESIDENTIAL GATHERING		3 THREATS TO PERSONS OTHER THAN VICTIM		3 VICTIM & OFFENDER DIRECTLY INTERACTING WITHIN GROUP SOCIAL ACTIVITY											
4 IN RESIDENTIAL GARAGE		4 IN PARK/PLEASURED OR RECREATIONAL AREA		3 VICTIMS CALLED CUP		4 WALKING IN COMMERCIAL AREA		4 VICTIM HAD NOT BEEN DRINKING BUT PRESENT AT PUBLIC GATHERING (show, cafe, sports, etc.)		4 PRESENCE OF SUSPECT IN UNUSUAL CIRCUMSTANCES		4 VICTIM & OFFENDER DIRECTLY INTERACTING BUT NOT IN GROUP SOCIAL ACTIVITY											
5 AT ALLEY-WAY		5 PUBLIC RESTROOM		4 VICTIM FILED		5 DRIVING OR RIDING IN VEHICLE		5 VICTIM HAD NOT BEEN DRINKING BUT PRESENT AT PUBLIC GATHERING		5 UNEXPECTED PHYSICAL BLOW TO VICTIM		5 VICTIM AND OFFENDER SOCIALLY INTERACTING ON BASIS OF FREQUENTLY OCCURRING GROUP ACTIVITY (club meeting, etc.)											
6 FRONT SIDEWALK		6 IN PUBLIC BUILDING (not private, business or commercial)		5 VICTIM VERBALLY REFUSED TO COOPERATE		6 HITCHHIKING		6 OTHER (SPECIFY)		6 UNEXPECTED PROPERTY TAKEN FROM VICTIM		6 VICTIM AND OFFENDER SOCIALLY INTERACTING ON BASIS OF FREQUENTLY OCCURRING GROUP ACTIVITY (club meeting, etc.)											
7 STORAGE/UTILITY SHED		7 NON RESIDENTIAL SIDEWALK OR PEDESTRIAN AREA (parking lot)		6 VICTIM PHYSICALLY RESISTED		7 ROUTINE ACTIVITIES IN RESIDENCE OR BUSINESS		7 OTHER (SPECIFY)		7 GAVE VICTIM VERBAL/HAND MOTION INSTRUCTIONS INDICATING OFFENSE ABOUT TO OCCUR		7 VICTIM AND OFFENDER SOCIALLY INTERACTING ON BASIS OF FREQUENTLY OCCURRING GROUP ACTIVITY (club meeting, etc.)											
8 STAIRCASE/STAIR WELL		8 IN/NEAR CHM., BUSINESS BLDG.		7 OTHER PERSON RENDERED VICTIM AID		8 RECREATIONAL OR ENTERTAINMENT ACTIVITIES OUTDOORS		8 POLICE ARRIVED		8 OTHER (SPECIFY)		8 OTHER (SPECIFY)											
9 OTHER (SPECIFY)		9 OTHER (SPECIFY)		9 OTHER (SPECIFY)		9 RECREATIONAL OR ENTERTAINMENT ACTIVITIES INDOORS		10 OTHER (SPECIFY)				9 OTHER (SPECIFY)											
32		33		34		35		36		37		38											
16) VICTIM/OFFENDER NON SOCIAL INTERACTION PRIOR TO OFFENSE		17) VICTIM/OFFENDER RELATIONSHIP		18) VICTIM SUSTAINED INJURIES BY		19) NATURE OF VICTIM INJURIES		20) NATURE OF VICTIM'S ACTIVE RESISTANCE		21) PROPERTY LOSS TRACEABLE TO GATHER		22) HOW WAS ENTRY GAINED											
0 NOT REPORTED		0 NOT REPORTED		0 NOT REPORTED		0 NOT REPORTED		0 NOT REPORTED		0 NOT REPORTED		0 NOT REPORTED											
1 NO PRIOR NON SOCIAL INTERACTION APPARENT		1 STRANGER TO STRANGER		1 NO INJURY SUSTAINED		1 NO INJURY		1 VICTIM ASSENT/NOT APPLICABLE		1 NO PROPERTY LOSS		1 NOT APPLICABLE											
2 VICTIM RESPONDED TO OFFENDER REQUEST FOR INFORMATION OR AID		2 CASUAL ACQUAINTANCE (identity known)		2 BEATING BY HAND, FEET, FISTS, ETC.		2 FRACTURED BONES		2 NO RESISTANCE, UNABLE TO RESIST		2 MPT. SERIAL NUMBERS RECORDED		2 BLOC. APERTURE FORCED OPEN											
3 OFFENDER RESPONDED TO VICTIM REQUEST FOR INFORMATION OR AID		3 VICTIM/OFFENDER WELL KNOWN TO EACH OTHER		3 BLOW FROM CLUB, CHAIN, OTHER WEAPON		3 LACERATIONS/FRACTURE WOUNDS		3 FLIGHT FROM SCENE		3 PROPERTY STAMPED/MARIED WITH OWNER'S IDENTIFICATION		3 NO FORCE REQUIRED OR APPARENT											
4 VICTIM PERFORMED SERVICE FOR OFFENDER		4 VICTIM/OFFENDER RELATED		4 CUT, STABBED, PUNCTURED BY WEAPON		4 BRUISES, CONTUSIONS, STRAINS, ABRASIONS		4 VERBAL RESISTANCE		4 PROPERTY WAS UNIQUE		4 ADMITTANCE THROUGH SUBTERFUGE											
5 OFFENDER PERFORMED SERVICE FOR VICTIM		5 OTHER (SPECIFY)		5 WOUND BY GUN SHOT		5 DAMAGE TO SENSORY ORGANS, BRAIN OR NERVOUS SYSTEM		5 PHYSICAL RESISTANCE		5 REG. SERIAL # (not recorded)		5 LEGITIMATE ACCESS BY OFFENDER											
6 VICTIM AND OFFENDER INTRODUCED TO EACH OTHER IN A NON SOCIAL SITUATION BY OTHER PERSON(S)		6 OTHER (SPECIFY)		6 WOUND BY GUN SHOT (SPECIFY)		6 INTERNAL INJURIES		6 RESISTANCE WITH USE OF WEAPON		6 OTHER (SPECIFY)		6 NEW APERTURE CREATED BY OFFENDER											
7 OTHER (SPECIFY)				7 OTHER (SPECIFY)		7 OTHER (SPECIFY)		7 OTHER (SPECIFY)		7 OTHER (SPECIFY)		7 OTHER (SPECIFY)											
39		40		41		42		43		44													
23) PHYSICAL SECURITY IN OPERATION		24) W/S PROPERTY LOSS/PERSONAL INJURY REDUCED BY SPECIAL PHYSICAL SECURITY METHODS EMPLOYED		25) VICTIM RESPONSE IMMEDIATELY FOLLOWING THE OFFENSE		26) FIRST PERSON TO HAVE POLICE MAKE OFFENSE COMPLETED		27) VICTIM'S ABNORMAL PHYSICAL/PSYCHOLOGICAL STATUS		28) POLICE DISPOSITION OF THE OFFENSE													
0 NOT REPORTED		0 UNKNOWN		0 NOT REPORTED		0 UNKNOWN/NOT REPORTED		0 NOT REPORTED		0 NOT REPORTED													
1 NOT APPLICABLE		1 UNKNOWN		1 NOT APPLICABLE		1 VICTIM		1 NONE APPARENT		1 UNFOUNDED													
2 NONE		1 NOT REPORTED		2 VICTIM INCAPACITATED		2 INVOLVED WITNESS		2 UNDER INFLUENCE OF ALCOHOL/DRUGS		2 EXCEPTIONALLY CLEARED													
3 ACCESS TO PROTECTIVE WEAPON		2 YES		3 NOTIFIED POLICE		3 VICTIM RELATIVE/FRIEND		3 RESTRICTED/HANDICAPPED DUE TO ILLNESS/INJURY		3 INACTIVE NOT CLEARED													
4 DOD		3 NO/NOT APPARENT		4 NOTIFIED FRIEND OR RELATIVE		4 POLICE OFFICER		4 HANDICAPPED DUE TO ILLNESS/INJURY		4 CLEARED BY SINGLE ADULT ARREST													
5 ALARM				5 SOUGHT AID FROM STRANGER		5 SUSPECT		5 HANDICAPPED		5 CLEARED BY MULTIPLE JUVENILE ARREST													
6 PROFESSIONAL SECURITY PATROL				6 STRUGGLED/INJURED TO PURSUE OFFENDER		6 ANONYMOUS CALLER		6 HANDICAPPED		6 CLEARED BY MULTIPLE JUVENILE ARREST													
7 NORMAL LOCKING DEVICES (Inc. safe/strong box, etc.)				7 SOUGHT MEDICAL TREATMENT FOR SELF OR OTHERS		7 OTHER PERSON RENDERING AID		7 OTHER (SPECIFY)		7 CLEARED BY AT LEAST ONE ADULT AND ONE JUVENILE ARREST													
8 LIGHTING (SPECIFY)				8 ADMINISTERED FIRST AID/PERSONAL HYGIENE TO SELF OR OTHERS		8 FELLOW EMPLOYEE (if victim working)		8 OTHER (SPECIFY)		8 OTHER (SPECIFY)													
9 OTHER (SPECIFY)				9 OTHER (SPECIFY)		9 CUSTOMER (if victim working)		9 OTHER (SPECIFY)		9 OTHER (SPECIFY)													

FIGURE 3-10
 Denver Police Department Victim Analysis Report (con't.)

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61		
29) REASON FOR POLICE DISPOSITION OF CASE 0 NOT REPORTED/UNKNOWN 1 LACK OF IEM INFORMATION 2 VICTIM REFUSED TO COOPERATE/PROSECUTE 3 VICTIM UNAVAILABLE/UNKNOWN INDIVIDUAL 4 LACK OF SUSPECT IDENTIFICATION 5 LACK OF CORPUS DELICT 6 DISTRICT ATTORNEY REFUSED TO PROSECUTE 7 SUSPECT ARRESTED 8 WARRANT ISSUED/SUSPECT STILL AT LARGE 9 OTHER _____ (SPECIFY)																		
30) HOW MANY ADULT SUSPECTS WERE ARRESTED FOR THIS OFFENSE 0 NOT REPORTED/NONE 1 2 3 4																		
31) HOW MANY JUVENILE SUSPECTS WERE ARRESTED FOR THIS OFFENSE 0 NOT REPORTED/NONE 1 2 3 4 5 6 7 8 9 OR MORE																		
32) LENGTH OF TIME FROM OFFENSE TO ARREST 0 NOT REPORTED/NO ARREST 1 IMMEDIATELY 2 WITHIN TWO HOURS 3 FROM 2 TO 24 HOURS 4 FROM 1 TO 4 DAYS 5 FROM 4 TO 7 DAYS 6 FROM 7 TO 31 DAYS 7 FROM 32 TO 60 DAYS 8 FROM 60 TO 120 DAYS 9 OVER 120 DAYS																		
33) WAS STOLEN PROPERTY RECOVERED 0 NOT REPORTED 1 NOT APPLICABLE/NO PROPERTY STOLEN 2 NO 3 YES PARTIAL RECOVERY 4 YES TOTAL RECOVERY																		
34) BURGLARIES ROBBERIES RAPE/SEXUAL ASSAULTS HOMICIDES ASSAULTS OTHER FELONIES NUMBER OF ADDITIONAL OFFENSES CLEARED BY ONE OR MORE ARRESTS IN CONNECTION WITH THIS CASE (01 to 99 OR ABOVE)																		
62	63	64	65	66	67	68	69	70	71	72	73	74	75					
35) BURGLARIES ROBBERIES RAPE/SEXUAL ASSAULT HOMICIDES ASSAULTS LARCENY/THEFT AUTO THEFT NARCOTIC/DRUG LAW VIOLATIONS BY PERSONS DRINK ARRESTS AS A JUVENILE WHAT WAS THE NUMBER OF PREVIOUS ARRESTS FOR THE SUSPECTS ARRESTED FOR THIS OFFENSE (0 - 9 OR ABOVE)																		
36) PHYSICAL EVIDENCE COLLECTED FROM CRIME SCENE FOR ANALYSIS 0 NOT REPORTED 1 NO/NONE 2 BY REPORTING OFFICER 3 BY INVESTIGATING DETECTIVE 4 BY POLICE EVIDENCE TECHNICIAN 5 RAPE EVIDENCE AND/OR VICTIM SUBMITTED TO ANALYSIS AT ICR 6 OTHER _____ (SPECIFY)																		
37) EVIDENCE TECHNICIAN CALLED TO CRIME SCENE 0 NOT REPORTED 1 YES 2 NO																		
38) SOURCE OF SUSPECT IDENTIFICATION 0 NOT REPORTED 1 NO IDENTIFICATION 2 INFORMANT 3 SELF CONFESSION 4 VICTIM 5 WITNESS 6 INVESTIGATIVE TECHNIQUE 7 OTHER _____ (SPECIFY)																		
39) INVESTIGATIVE TECHNIQUE WHICH FIRST IDENTIFIED SUSPECT 0 NOT REPORTED 1 NONE/NOT SPECIFIC 2 FINGERPRINTS 3 COMPOSITE DRAWING 4 MUG SHOTS 5 PHYSICAL LINE UP 6 LABORATORY ANALYSIS 7 OTHER _____ (SPECIFY)																		
76	77	78	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
40) ACTION TAKEN ON SUSPECT'S ARREST 0 NOT REPORTED 1 NOT APPLICABLE 2 DISTRICT ATTORNEY FILED CHARGES 3 SUSPECT RELEASED, NOT CHARGED 4 HELD AS A SUSPECT 5 HELD FOR GRAND JURY 6 RELEASED TO JUVENILE AUTHORITIES 7 RELEASED & ISSUED SUMMONS (ordered in) 8 OTHER _____ (SPECIFY)																		
41) WHAT WAS THE SUSPECT'S PHYSICAL STATUS AT THE TIME OF ARREST 0 NOT REPORTED 1 NORMAL 2 UNDER INFLUENCE OF ALCOHOL 3 UNDER INFLUENCE OF DRUGS 4 PHYSICALLY ILL 5 UNINJURED 6 MENTALLY INCAPACITATED/DISTURBED 7 OTHER _____ (SPECIFY)																		
42) STREET LOCATION OF CRIME ADDRESS 0 NOT REPORTED 1 NORTH 2 SOUTH 3 EAST 4 WEST																		
43) ADDRESS OF OFFENDER BLOCK NUMBER DIRECTION STREET CODE																		
44) ADDRESS OF VICTIM BLOCK NUMBER DIRECTION STREET CODE																		

offense report. Another example of a special crime analysis form is the Denver Police Department's Victim Analysis Report presented in Figure 3-10.

If a department has a well-established reporting system that does not lend itself to the production of the types of data an analysis section requires for its analytical functions, a special crime analysis data collection form may be introduced into the operational reporting system. This collection form can be designed to specifically acquire those data elements lacking in the normal reporting system.

g. *Other Departmental Sources.* There are other departmental reports that may be useful to the crime analysis unit in its analysis function. These are reports produced by various units, usually records or statistical units, and computer-produced reports that are made for other police functions. Included in this category are suspect debriefing or screening reports. These types of reports are invaluable in deriving an understanding of how and why a perpetrator committed a certain offense. They also give indications as to the attractiveness of the object of attack, suspect MO, relationship to police practices, etc. Reports produced for use by the department's various units must be reviewed to determine if they contain data useful to the analysis section.

3. *Informal Data Sources.* Informal departmental sources include personal contacts with patrol, investigative, and undercover personnel. Also included in this category is information from criminal informants or "soft intelligence". This informal information, while in most cases not appropriate for quantitative analysis, can provide indications of possible subjects for further investigations. For example, an informant may provide a detective with information that, while insufficient for suspect pick up or arrest, indicates that a certain person should be included in the known or suspected offender's file. This informal type of information may also aid in the determination of the underlying causes of events or trends that the analysis section has been analyzing. It will also give the crime analysis operation an indication of what other areas of crime should be specifically analyzed.

The amount, reliability and source of informal information made available to the crime analysis unit may provide the most valid index to an evaluation of the depart-

ment's crime analysis system. This type of information can indicate the department's or the individual user's confidence in and reliance upon the information produced by the analysis section.

4. *Outside Sources.* In order to get a complete picture of crime within a jurisdiction, data from outside agencies must be brought into the crime analysis function. Those areas of information that are most useful to crime analysis are disposition information, data on suspect/known offenders, data on vehicles of interest, and other local jurisdiction's crime analysis reports.

Disposition information provides crime analysis with the current status of a particular case or individual and allows the unit to keep its records up to date.

Data on suspect/known offenders and vehicles of interest further increases the data available to the crime analysis unit for analysis and identification.

Some outside sources may be able to supply specific data elements that can be used in the department's crime analysis process. If these data are specific to the crime analysis section's area (geographic and subject) of concern and can be directly used in its analytical process, they should be considered for analysis. An example of such data would be juvenile, family or gang data from the juvenile probation authority.

Those agencies or data sources which usually supply information in each of these area are indicated in Table 3-2.

B. Data Collection Methods and Procedures

Since the crime analysis section must depend upon other units to collect its base data, two areas of data collection are of major importance. The first is the data collection process of the units which supply data to the analysis unit; and the second is the data capture process of the unit itself. The crime analysis system must have ready access to the data sources that provide it with information. It must be able to influence the method of source data collection. Further, it must develop a standardized set of data elements and a means of extracting important data from the total information it has been provided.

TABLE 3-2
Outside Sources of Crime Analysis Information

INFORMATION	SOURCE
Disposition Information	Sheriff's Office Prosecutors Courts Probation Corrections Parole
Crime Analysis Data	Pawn Shops Gun Registration Check Data Credit Card Data
Suspect/Known Offender Data	Sheriff's Office Other Police Departments Probation Parole State Police State Identification and Intelligence FBI
Vehicles of Interest Data	Sheriff's Office Other Police Departments State Police FBI National Auto Theft Bureau
Crime Analysis Report	Surrounding Area Police Departments and Sheriff's Offices

1. *Accessibility of Data Sources.* The data sources for a crime analysis unit are diverse in nature, but the majority of them are located within the unit's parent organization. The varying nature of criminal justice reporting, feedback and recordkeeping makes it necessary for each analysis section to determine what data sources are available to it and discover the accessibility of the data source for the specific types of information needed for its analysis. In addition, the amount of influence the analysis unit has on a data source (the ability to define what data will be available to the unit) is related to the distance of the data source (organizationally, philosophically, and physically) from the unit. The accessibility of data from the department's own patrol division is greater than that from the sheriff's patrol division, which is greater than that from the state department of corrections.

The crime analysis section must establish lines of communication with all the data sources and assure itself that it is receiving accurate and complete data. Attempts should be made to widen the lines of communication with the data sources. This becomes especially important in cases in which infor-

mal sources of information are concerned. By widening communications with a data source, the analysis section can not only receive all of the already available data from the source, but may be able to influence the collection, procuring, and distribution of data and, thus, increase the section's effectiveness.

2. *Integrity of Crime Data.* To a large extent, the reliability of crime analysis reports will depend upon the quality of crime data provided by operations units, such as patrol and investigation. In other words, if the MO elements contained within the initial crime report are incomplete, inaccurate or not clear, it is possible that conclusions reached may be erroneous.

Almost without exception, police agencies have some means of reviewing the reports which are submitted by line officers and investigators. The issue for crime analysis to determine is the acceptability of the facts contained within crime reports. Do they accurately reflect what actually occurred? There is great variance in the manner, style and format of crime reports. Many agencies rely totally on the narrative crime report, which often leaves the manner of documenting the facts to the officer's individual writing ability. On the other hand, some of the larger agencies such as Chicago Police Department and Los Angeles Police Department have designed specific reports for different offenses which compel the reporting officer to provide required information by having to "check off" or answer a series of relevant MO questions. In terms of crime analysis, the latter system is the most satisfactory.

It is strongly recommended that agencies forming a crime analysis unit also initiate a quality control system of report review. Such a function is the proper responsibility of the first line supervisor in those units submitting crime reports. Supervisors having such responsibility should be carefully trained in the objectives of crime analysis and its requirements for crime reporting. Report review should be a critical function which is best performed at the time the report is submitted by the officer.

3. *Standardization of Data Elements.* As the data used by the crime analysis section is collected by other units, the section must establish a set of standard data elements. These will be those data elements that the analysis unit will use in its analytical func-

tion. Each data element to be used must be identified and defined according to its function. The data source for each element must be determined and a method for collecting it detailed. For example, if the physical characteristics of the suspect are a defined data element, there could be at least three sources for the data: (1) the complainant's description to the complaint officer, (2) the victim's description to the field investigator, or (3)

the data collected during the booking process. Each of these data sources may be used by the crime analysis unit as suspect data, but as (2) becomes available it should supercede (1) and in like manner as (3) becomes available it should supercede (2). The available forms and sub-elements of each data element must be evaluated to establish how each data element will look when it is received by the analysis section.

FIGURE 3-11
Miami Police GACHA Classification of Personal Descriptors

<u>Closest Estimate of Age</u>	<u>LIMBS</u>	<u>DISTINCTIVE APPEARANCE</u>	<u>LIPS</u>	<u>HANDS</u>
<u>SEX</u>	51. Arm(Right)	<u>HEAD</u>	212. Hairlip	522. Large
01. Male	52. Arm(Left)	001. Full	214. Impediment in Speech	524. Noticeable Different Size
<u>02. Female</u>	53. Arm(Both)	003. Square Face	222. Protruding Upper	526. Thumb Missing
<u>RACE</u>	54. Hand(Right)	004. Triangle Up	224. Protruding Lower	528. Fingers Missing
01. White	55. Hand(Left)	005. Triangle Down	226. Thin Lips	530. Rings on Ring Finger
02. Negro	56. Hand(Both)	006. Round Face	227. Thick Lips	532. Rings on Fingers Other Than Ring Finger
03. Indian	57. Leg(Right)	007. Rectangle	228. Twists Mouth When Speaking	534. Left Handed
04. Chinese	58. Leg(Left)	008. Oval	232. Thick Upper	536. Crippled Right
05. Japanese	59. Leg(Both)	009. Narrow	<u>233. Thick Lower</u>	537. Crippled Left
<u>09. All Other</u>	60. Foot(Right)	010. Goatee	<u>MOUTH</u>	540. Missing Right
<u>HEIGHT</u>	61. Foot(Left)	012. Beard	236. Foreign Accent	<u>541. Missing Left</u>
01. Less Than 5 Foot	62. Foot(Both)	014. Mustache	237. Southern Drawl	<u>STOMACH</u>
02. 5'0" to 5'2"	63. Wrist(Right)	017. Fu Manchu	238. Fast Clipped	562. Very Fat
03. 5'3" to 5'5"	64. Wrist(Left)	019. Skinhead	239. Brooklyn Accent	564. Large
04. 5'6" to 5'8"	65. Wrist(Both)	<u>022. Pockmarked</u>	240. Vulgar Language	566. Medium or Pot
05. 5'9" to 5'11"	66. Elbow(Right)	<u>HAIR</u>	241. Beatnick or Jive	569. Normal
06. 5'0" to 6'3"	67. Elbow(Left)	026. Afro	242. Unusual Looking	<u>572. Thin</u>
<u>07. 6'4" or Over</u>	68. Elbow(Both)	028. Long Straight	243. Heart Shaped	<u>HIPS</u>
<u>WEIGHT</u>	<u>OTHER</u>	029. Long Curley	244. Latin Accent	732. Large or Pear Shaped
01. Less Than 100	71. Pockmarked	030. Short Straight	245. Slurred Speech	<u>735. One Side Higher</u>
02. 100 to 120	72. Bullet or Shrapnel Wounds	031. Short Curley	247. Stutters	<u>UPPER LEGS</u>
03. 121 to 140	73. Needle Marks	032. Receeding	<u>TEETH</u>	756. Heavy
04. 141 to 160	74. Vaccination(Right Arm)	033. Curley	260. Gold	757. Medium
05. 161 to 180	75. Vaccination(Left Arm)	034. Straightened Hair (Processed)	262. Pretty	<u>758. Thin</u>
06. 181 to 200	76. Vaccination(Thigh)	<u>BIRTHMARKS, MOLES, WARTS</u>	264. Irregular or Chipped	<u>KNEES</u>
07. 201 to 220	<u>99. Multiple Scars Over Body</u>	01. Forehead	266. Spaces or Separated	772. Knock Kneed
08. 221 to 240	<u>01. Forehead</u>	02. Eye(Right)	268. Missing Top	774. Bowed
<u>09. 241 or More</u>	02. Eye(Left)	03. Eye(Left)	269. Missing Bottom	776. Straight
<u>EYES (COLOR)</u>	04. Eye(Both)	04. Eye(Both)	271. Protruding Upper(Rabbit)	<u>778. Stiff</u>
01. Blue	05. Nose	05. Nose	272. Protruding Lower	<u>LOWER LEGS</u>
02. Brown	06. Ear(Right)	06. Ear(Right)	<u>290. Visible Decay</u>	792. Heavy
03. Grey	07. Ear(Left)	07. Ear(Left)	<u>CHIN</u>	794. Medium
04. Hazel	08. Ear(Both)	08. Ear(Both)	318. Clipped	<u>796. Thin</u>
05. Green	09. Mouth(Between Mouth & Nose)	09. Mouth(Between Mouth & Nose)	320. Square	<u>ANKLES</u>
06. Maroon or Black	10. Mouth(Lips)	10. Mouth(Lips)	322. Protruding	802. Thick
<u>07. Separate Colors</u>	11. Chin	11. Chin	325. Cleft	804. Medium
<u>HAIR</u>	12. Face or Cheek(Right Side)	12. Face or Cheek(Right Side)	328. Double	806. Thin
01. Blond or Strawberry	13. Face or Cheek(Left Side)	13. Face or Cheek(Left Side)	330. Dimpled	808. Boney
02. Brown(Light)	14. Face or Cheek(Both)	14. Face or Cheek(Both)	332. Receeding	<u>810. Stiff</u>
03. Brown(Dark)	15. Neck	15. Neck	010. Goatee	<u>FEET</u>
04. Black	16. Back of Head	16. Back of Head	<u>012. Full Beard</u>	822. Pigeon Toed
05. Grey or Partially Grey	<u>TORSO AREA</u>	<u>TORSO AREA</u>	<u>NECK</u>	824. Large
06. White	31. Chest	31. Chest	342. Large Adams Apple	826. Small
07. Red or Auburn	32. Shoulder(Right)	32. Shoulder(Right)	344. Thick	<u>828. Amputated</u>
08. Dyed or Unusual or Odd Color	33. Shoulder(Left)	33. Shoulder(Left)	346. Thin	<u>BODY BUILD</u>
09. Bald(Hairless)	34. Upper Back	34. Upper Back	348. Giraffe	837. Slight
<u>SCARS (LOCATION)</u>	35. Lower Back or Buttocks	35. Lower Back or Buttocks	350. Goiter	839. Medium
<u>HEAD AND NECK AREA</u>	36. Stomach	36. Stomach	<u>UPPER TORSO</u>	841. Muscular
01. Forehead	37. Hip(Right)	37. Hip(Right)	361. Lump on Back	843. Large
02. Eye(Right)	38. Hip(Left)	38. Hip(Left)	363. Deformed	844. Square
03. Eye(Left)	<u>LIMBS</u>	<u>LIMBS</u>	365. Paralyzed	<u>COMPLEXION</u>
04. Eye(Both)	51. Arm(Right)	51. Arm(Right)	367. Lopsided	852. Sallow
05. Nose	52. Arm(Left)	52. Arm(Left)	<u>370. Stooped</u>	854. Dark
06. Ear(Right)	53. Arm(Both)	53. Arm(Both)	<u>CHEST</u>	856. Light
07. Ear(Left)	54. Hand(Right)	54. Hand(Right)	387. Large	<u>858. Florid</u>
08. Ear(Both)	55. Hand(Left)	55. Hand(Left)	389. Sunken	<u>CLOTHING</u>
09. Mouth(Between Mouth & Nose)	56. Hand(Both)	56. Hand(Both)	391. Small	869. Partially Dressed
10. Mouth(Lips)	57. Leg(Right)	57. Leg(Right)	394. Protruding	870. Nude
11. Chin	58. Leg(Left)	58. Leg(Left)	397. Hollow	871. Poorly Dressed
12. Face or Cheek(Right Side)	59. Leg(Both)	59. Leg(Both)	<u>SHOULDERS</u>	872. Well Dressed
13. Face or Cheek(Left Side)	60. Foot(Right)	60. Foot(Right)	411. One Side Higher Than Other	873. Neatly Dressed
14. Face or Cheek(Both Sides)	61. Foot(Left)	61. Foot(Left)	413. Sloping	874. Wore Uniform, Military
15. Neck	62. Foot(Both)	62. Foot(Both)	370. Stooped	875. Wore Uniform, Police or Fire
16. Back of Head	<u>OTHER</u>	<u>OTHER</u>	418. Wide	876. Wore Uniform, Workclothes
17. Eyebrow(Right)	71. Freckles	71. Freckles	<u>420. Narrow</u>	877. Wore Coveralls
18. Eyebrow(Left)	72. Pimples	72. Pimples	<u>UPPER ARMS</u>	878. Cap or Hat
19. Lower Lip	<u>TATTOOS</u>	<u>TATTOOS</u>	427. Large	879. Gloves or Stockings on Hands
<u>TORSO AREA</u>	80. On Neck	80. On Neck	428. Small	880. Topcoat or Raincoat
31. Chest	81. On Chest	81. On Chest	429. Amputated(Right)	881. Opposite Sex Clothing
32. Shoulder(Right)	82. On Back	82. On Back	430. Amputated(Left)	882. Mask
33. Shoulder(Left)	83. On Shoulder	83. On Shoulder	431. Withered(Right)	883. Mask, Silk Stocking
34. Upper Back	84. On Stomach	84. On Stomach	432. Withered(Left)	884. Mask, False Face
35. Lower Back or Buttocks	85. Arm or Hand(Right)	85. Arm or Hand(Right)	434. Paralyzed	885. Tennis Shoes, Crepe Soles or Unusual Shoes
36. Stomach	86. Arm or Hand(Left)	86. Arm or Hand(Left)	<u>ELBOW</u>	886. Make Up, False Nose, Etc.
37. Hip(Right)	87. Arm or Hand(Both)	87. Arm or Hand(Both)	457. Cyst(Right)	887. Wore Religious Medalion and/or Chain
38. Hip(Left)	88. On Fingers	88. On Fingers	458. Cyst(Left)	
	89. Leg or Foot(Right)	89. Leg or Foot(Right)	460. Cyst(Either)	
	90. Leg or Foot(Left)	90. Leg or Foot(Left)	461. Cyst(Both)	
	91. Leg or Foot(Both)	91. Leg or Foot(Both)	<u>463. Stiff</u>	
	92. "Pachuco"	92. "Pachuco"	<u>FOREARM</u>	
	98. Multiple Tattoos Over Body	98. Multiple Tattoos Over Body	475. Amputated(Right)	
	99. Multiple Marks Over Body	99. Multiple Marks Over Body	476. Amputated(Left)	
			479. Deformed(Right)	
			<u>480. Deformed(Left)</u>	

This is necessary to aid the crime analysis collection process in recognizing and capturing data elements from operations reports.

Another area of standardization is the definition of sub-element descriptions. After a crime analysis data element has been defined, the manner in which the data element is to be described must be established. This process must be carried on until the lowest level of descriptor has been defined. An example of this is the Miami Police Department's GACHA classification of personal descriptors as shown in Figure 3-11.

The analysis section must determine the level of detail that it requires for analysis or that is available from its data sources. In all cases, the most detailed level of description may not be a determining factor because the detail may add nothing to the analysis function or may be unavailable due to the reduction of the data before it is given to the crime analysis unit.

After the data elements have been determined, the sub-elements defined, data element and data sub-element descriptors established, and data sources identified and weighted for validity, the analysis section must set criteria for the validity of data elements and institute a methodology for collecting the data for analysis.

4. *Collection Methodology.* An analysis of the data elements required and data sources available to supply the valid data must be carried out. This process will interconnect the data elements and the available sources, while determining the weighting factor to be applied to the data sources. This weighting factor is a scale of validity that can be assigned to the particular data element and the data source. For example, our physical characteristic of suspect may be graphically portrayed as depicted in Figure 3-12.

Here the arbitrary weights of 1, 4 and 10 have been assigned to indicate the degree of validity that may be assigned to each data source's descriptive capabilities.

Determining the best data source available is not a static decision, but may change with the event or the time process of the crime. There may only be complainant data until a follow-up investigation and victim interview has taken place. With the occurrence of an arrest, this new data source should supplant other data sources.

Data collection for the crime analysis unit is an internal process. After receiving data

FIGURE 3-12
Information Validity Weighting for Crime Analysis Source Information

DATA ELEMENT		DATA SOURCE
	WEIGHT	
Physical Characteristic of Suspect	1	Complaint Report
	4	Field Crime Report
	10	Arrest Report/Data

from its data sources, the analysis section must extract that data and "collect" it in a form that lends itself to analysis and storage. The crime analysis unit must put a value on each data element captured from a report document. By doing so, a measure of the validity is obtained from captured output. It must be kept in mind that *not* using "soft" or unreliable data in a statistically oriented analysis process is much more advantageous to the analysis output than the use of every item of data, no matter how suspect its nature. Because the elements of data used by an analysis section represent only a sampling of crime data (there are many more crimes that are committed and not reported), the more precise the data elements used, the more valid will be the analysis output.

Some processes within crime analysis are, due to the uncertain nature of the data available or the analytical question posed, not statistical in nature. These processes seek comparisons and evaluations that may indicate trends that the hard data cannot reveal. In order to accomplish this analytical function, "soft" data elements that cannot be classified as reliable must be collected along with the other data. However, an indication should be given that the results of the analysis are dependent on somewhat unreliable data.

There are various means of data collections that will be available to the crime analysis operation. These include such methods as tally sheets, indexing, EDP encoding, direct capture from the supplied report, machine readable copy, direct keypunch, etc. The analysis section must evaluate the data sources method of collection and dissemina-

tion and determine the most appropriate means of extracting the crime analysis data elements. This decision will be greatly influenced by the crime analysis module utilized by the department. The data capture criteria will remain constant, but methodology may change. A street location can be captured for a system that automatically produces maps by encoding it for keypunching, having it keypunched from the crime report or having the data entered by the records division. The same process for a manual system may involve the production of index cards for each event, along with subsequent transfer of data to maps.

C. Data Storage

The data that is stored by the crime analysis unit should be data which has been "collected" from the information supplied by its data sources. Data input forms used for analysis and outputs of the crime analysis function should be stored by the unit. The crime analysis section should not store for long periods of time records that are available in other departmental record storage systems. A report from which crime analysis data elements have been extracted should, after a predetermined period of time, be returned to records, routed to another function, or destroyed. If future analysis definitions require additional data from the report, the report will be available from the central records division and need not be maintained in a duplicate file. The crime analysis unit's files should be operational in content and should contain the historic output of the unit. To be effective, most of the information extracted from the data must be recorded and filed according to organized methods and techniques. Data should be easily retrievable from the specialized crime records kept by the system. Certain data should be purged regularly from the system, although this criteria will vary according to the type of data kept within the system.

1. *Filing and Record Keeping Techniques.* The basic philosophy for filing and record keeping in a crime analysis section should be nonduplication of departmental records, maintenance of operational files, and easy access to analysis data. The techniques utilized by the analysis section will vary from unit to unit due to size, level of automation, and detail of the analysis function.

Filing data for manual systems may include (a) index cards of crime events by type, location, time, MO, etc.; (b) a criminal/victim/witness name file; (c) data collection/analysis form files (tally sheets, analysis forms and matrices, etc.); (d) reports or data inputs from external sources; and (e) analysis unit output files (reports, maps, summaries, etc.). An automated system retains files of data inputs (either maintained by the analysis unit or DPD) on cards, tape or disc, computer reports and other analysis reports generated. Either unit might carry files on physical description of suspects.

FIGURE 3-13
Typical Crime Analysis Data Files

Crime Description File

- a. Type or classification
- b. Location (beat, reporting district, street address)
- c. Crime descriptors (entry - premise- MO)
- d. Time
- e. Etc.

People File

- a. Master name file
 1. Known offenders
 2. Suspects
 3. Victims
 4. Witnesses
 5. Offender Associates
- b. Criminal history file
- c. Physical descriptor file
 1. Photo
 2. Fingerprint
 3. Physical descriptor (height, weight, eyes, hair, build, scars, distinguishing marks, etc.)

Vehicle File

- a. Stolen
- b. Stolen/Recovered
- c. Location (stolen - recovered)
- d. Known offender - of interest

Property File

- a. Stolen - lost
- b. Recovered
- c. Pawned

The record keeping of the crime analysis unit will be determined by the type of structure (manual or automated) and the crime elements it analyzes. An example of the files the analysis section may keep is listed in Figure 3-13.

2. *Data Retrieval Requirements.* The data retrieval requirements of a crime analysis unit will be determined by the level of analysis the unit carries out. A very sophisticated analysis operation may require the ability to retrieve data from every data element collected in the crime analysis system. This type of indexing or retrieval would undoubtedly be a complex computerized model. In a manual system, only those elements that will be continuously retrieved for analysis would be indexed or separated for easy data retrieval. If a collected data element is used only once, it should not be given an index or access mode in the system.

In order to define its data retrieval requirements, the crime analysis unit must

define which categories of questions and analysis it will address. The more sophisticated the analytical function employed, the more complicated the retrieval requirements will be. The type of indices and cross references that the analysis section might use are presented in Figure 3-14.

3. *Data Purge Criteria.* The data purge criteria for the crime analysis section should be set according to the utility of the data. If data is used only once, the analysis report will suffice. But, if the data is used repeatedly, it should be maintained as long as it has a useful analysis life. The utility of some data may be very short—such as field interrogation reports. These are given purge or utility spans of from 48 hours to 60 days. The depth at which the analysis function is carried out by the analysis unit will greatly influence the purge criteria of data elements maintained by an analysis unit. The set of criteria in Figure 3-15 is set off for explanatory purposes.

FIGURE 3-14

Typical Crime Analysis Index or Cross Reference Methods

Crime Incident Assigned Number
 Crime Classification
 Location
 Time
 MO
 Persons/Business Name
 ID Numbers (police department, state, FBI, drivers license, social security, etc.)
 Photo Classification/Organization (sex/race/age, appearance group type offense, etc.)
 Fingerprint Classification
 Personal Physical Descriptors
 Vehicle License Number
 Vehicle ID Number (VIN)
 Vehicle Descriptors (make, model, color, year, etc.)
 Property Descriptors (type, manufacturer, model, serial number, etc.)

FIGURE 3-15

Example of Purge Criteria

Crime Data
 Location - 5-10 years
 Time - 5-10 years
 MO - 3-5 years

Personal
 Criminal History - Indef., but updated
 MO - 5-10 years
 Associates - 10-15 years
 Field Interrogations - 2-60 days

Vehicles
 Stolen - 6 mos.-1 year
 Suspect/of Interest - 3-5 years

Chapter IV

DATA ANALYSIS TECHNIQUES AND STATISTICAL METHODS

A. Identification of Specific Crimes and Data Elements Most Applicable to Analysis

CRIME ANALYSIS is most effective when applied to the class of criminal offenses where a high probability of recurrence exists.

Single incident type crimes should be identified as not lending themselves to analysis. Most Part I crimes against persons, on the other hand, do not usually benefit from analysis, with the notable exceptions of rape, robbery, and related combinations of offenses (such as kidnap-rape, robbery-attempted murder, burglary-rape, burglary-robbery-kidnap). Analyzing the isolated criminal offenses has some value, such as gaining knowledge of where these offenses are most likely to reoccur. However, this knowledge is usually difficult to utilize effectively for either preventive or suppressive purposes.

The crime analysis operation should direct its efforts toward those classes of criminal offenses that the police function is most capable of preventing or suppressing and, failing this, those offenses in which the criminal offender can be apprehended.

The information coordination function of crime analysis serves to increase apprehension of criminals, while the analysis and strategy formation functions serve to prevent and suppress crime.

The crime analysis operation must also analyze crimes on a priority basis. In most instances, the analysis section will be somewhat limited by manpower availability and cost considerations. The analysis operation

should establish priorities based on individual agency policies and operational needs, as well as prevalent community crime problems. The crimes to be analyzed should be decided by the individual agency. This text will discuss the general suitability of various crime types to analysis.

A large percentage of the offenses reported to any law enforcement agency are committed by persons who have committed similar crimes in the past. If not prevented, these persons will commit similar crimes in the future. These criminals have established an MO pattern based on past successes. In his recent book, *Crime and Informational Theory* (Aldine Publishing Company, 1970), M.A.P. Willmer examines the criminal as an emitter of informational signals. Willmer believes that a systematic interpretation of

TABLE 4-1
Universal Factors for Crime Analysis

• CRIME TYPE	Burglary (class: business-commercial, residential, other) Robbery (class: armed vs. not armed) Auto Theft (automobile, commercial vehicle, motorcycle, etc.) General Larceny (thefts from autos, auto acc.s, scrap metal, dock, etc.) Fraud (forgery, credit cards, confidence games, etc.) Rape and Sex Crimes (forcible rape, child molesting, indecent exposure) Aggravated Assault and Murder
• GEOGRAPHICAL	Location offense occurred Street address or intersection Block Sub-reporting area or census tract Reporting area, patrol area or beat Zone, precinct, or district
• CHRONOLOGICAL	Specific time offense occurred Time span in which offense occurred (day-night) Day of week Week of year Month of year
• VICTIM TARGET	Victim person (sex, age, race, etc., of victim) Type victim structure (single dwelling house, apartment, high rise, etc.) Type victim premise (commercial, industrial, public, etc.) Victim purpose (sales, service, manufacturing, etc.) Victim knowledge of suspect
• SUSPECT	Name of responsible Age of responsible Race of responsible Height of responsible Weight of responsible Clothing and unusual characteristics
• SUSPECT VEHICLE DESCRIPTIVE	Specific license number Make of vehicle Model and year of vehicle Color of vehicle Damage to vehicle
• PROPERTY LOSS DESCRIPTIVE	Serial number of property loss Make of property loss (brand name, etc.) Model of property loss Type of property loss Purpose of property used for

such signals can lead to the solving of cases. The informational signals establishing a particular MO provide the crime analysis operation a means of identifying crime patterns, trends and individual suspects.

For almost all crimes there are universal factors available for analysis. The availability of these factors varies greatly between crime types and specific reported offenses. These universal factors are important in that once they have been identified and recorded, they are available for analysis purposes. An example listing of these universal factors for analysis is presented in Table 4-1.

The utility of these universal factors for the analysis of different crime types is related to the availability of the above factors. The comparison of one crime to another (or body of other crimes) requires that the information for comparison be commonly available. For example, in the analysis of burglaries, a description of one suspect in a particular case may be of less value than the type of property taken or the type of structure entered. This is because the analyst will not usually have a suspect description for comparison purposes, but he will have available information on cases involving similar property losses or similar structures victimized.

In addition to the above universal factors, there is an almost infinite number of factors that may be considered specific to a particular crime class or type. These crime-specific factors are data elements that are usually recorded during the reporting of a particular type of offense and are used for analysis purposes. An example listing of crime-specific analysis factors is presented in Table 4-2.

Crime-specific factors provide information which can be used by the analyst to connect crimes with similar characteristics and also to identify MO patterns. Information regarding physical evidence may have considerable value in the analysis of several crime types, such as burglary and auto theft. Thus, the suitability of different crimes to analysis is dependent upon the seven universal factors, specific MO factors, and physical evidence. With these considerations in mind the different crime types and classifications will be examined in order to determine their applicability to analysis.

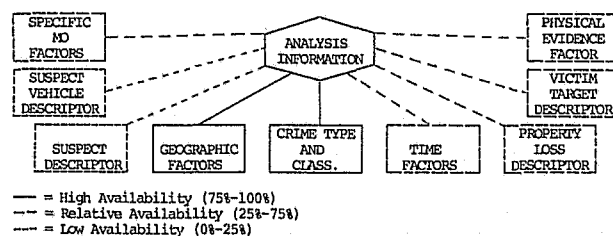
1. *Residential Burglary Analysis.* Although residential burglary is one of the most difficult crimes for the police to prevent, sup-

press, or prosecute,¹ it is the most applicable to analysis. The typical residential burglar establishes an MO pattern based upon successful past offenses. Usually the residential burglar will continue to commit similar crimes until he is either apprehended or for some other reason ceases to commit burglaries.

The analysis of residential burglaries is hampered by the tremendous volume of reported cases and the general lack of clearly distinguishable MO characteristics. Residential burglars with clear-cut trademarks are uncommon. This is caused by the use of similar MO's by many residential burglars in such things as location, point and method of entry, and type of property stolen. However, in many cases residential burglars will establish patterns of operation that the crime analysis can identify.

One isolated residential burglary case will not provide a great deal of information about the criminal. An identified pattern of burglaries, however, can provide a great deal more information if individual informational components are extracted and correlated. The universal and crime specific informational factors previously presented are depicted in Figure 4-1 for a typical burglary case in which the criminal offender succeeds in completing the crime unapprehended.

FIGURE 4-1
Typical Available Information Factors in a Residential Burglary



This figure depicts that information which is typically available for analysis in a residential burglary case. The available information evaluation must consider the specificity, accuracy, and value of the information received.

The analysis of residential burglaries should be systematically directed toward examining the following factors:

- Crime type and classification
- Geographic factors

¹ The FBI Uniform Crime Reports for 1971 indicates that 60% of the total number of reported burglaries were residential and that 19% of the total were solved by arrest.

- Property loss descriptors
- Specific MO factors
- Victim target descriptors
- Physical evidence factors

TABLE 4-2
Crime-Specific Factors for Crime Analysis

● RESIDENTIAL BURGLARY SPECIFIC	<ul style="list-style-type: none"> Type premise attacked (house, exterior apt., interior apt., etc.) Occupied vs. unoccupied Point of entry (window, door, etc.) Method of entry (pry door or window, pipe wrench door, break window, etc.) Presence of physical evidence (latent prints, etc.)
● COMMERCIAL BURGLARY SPECIFIC	<ul style="list-style-type: none"> Type of business attacked (TV store, clothing store, svqns. & loan, etc.) Alarm information (no alarm, alarm defeated, method, etc.) Point of entry (window, door, roof, wall, floor, vent, etc.) Method of entry (window smash, lock in-break out, peel wall, etc.) Safe attack method (rip, punch, peel, burn, drill, grind, etc.)
● ROBBERY SPECIFIC	<ul style="list-style-type: none"> Type of business victim (diner, bar, taxi, savings & loan, gas station, etc.) Victim person descriptors (sex, race, age, occupation, etc.) Type weapon used (handgun, shotgun, knife, club, etc.) Suspect mask and type (facial area covered) Suspect statement during commission (or note), particular M.O.
● THEFT FROM PERSON SPECIFIC	<ul style="list-style-type: none"> Exact location of victim (sidewalk, park, hallway, bar, etc.) Victim person descriptors (sex, race, age, etc.) Victim condition after attack Suspect particular M.O. (approach, flight, statements, etc.) Object of theft (cash, checks, credit cards, jewelry, etc.)
● AUTO THEFT SPECIFIC	<ul style="list-style-type: none"> Area stolen vs. area recovered Exact last location (on-street, parking lot, carport, sales lot, etc.) Make, year and model of vehicle Degree of strippage and parts Presence or absence of physical evidence
● LARCENY SPECIFIC	<ul style="list-style-type: none"> Type victim property (business, personal, use, purpose, etc.) Location of property (left unattended, in vehicle, etc.) Specific property taken and market potential Suspect particular M.O. Presence or absence of physical evidence
● FORGERY SPECIFIC	<ul style="list-style-type: none"> Check and credit card specifics (how obtained, type, etc.) Type business or person victimized Document descriptors (stolen commercial, personal, etc.) Type of identification used Confidence game specifics (ploy used, etc.)
● RAPE & SEX OFFENSE SPECIFIC	<ul style="list-style-type: none"> Victim person descriptors (age, race, sex, occupation, etc.) Location of encounter vs. location of departure Suspect statements during commission Suspect particular actions or M.O. (include relationship) Weapon or degree of force used
● AGGRAVATED ASSAULT AND MURDER SPECIFIC	<ul style="list-style-type: none"> Degree of relationship between victim and suspect Victim personal descriptors Motive Weapon used Physical evidence

- Time factors
- Suspect descriptors
- Suspect vehicle descriptors

In this listing the informational factors are presented in order of relative importance. It should be emphasized that the above listing is for analysis purposes. The ordering of a listing for investigative solutions would be very different.

2. *Commercial Burglary Analysis.* The analysis of commercial or business burglaries is in many respects easier than that of residential burglaries. More pertinent information is available to the analyst in analyzing commercial burglaries. Commercial burglaries are more specialized and will exhibit more specific MO characteristics. The analyst has more specific information regarding point and method of entry, victim target description, and property loss description. The time factors for commercial burglaries may be of less value in commercial burglary analysis than in residential burglary analysis since most commercial burglaries occur at night or during weekends.

The commercial burglar is generally more mobile than the residential burglar. An analysis of commercial burglaries is not as restricted in geographical area as an analysis of residential burglaries. The commercial burglar may travel a considerable distance to attack a particular type of business. The residential burglar, however, is less discriminating because he has a greater number of potential targets. Figure 4-2 depicts the availability and informational value of the universal and crime-specific factors for a commercial burglary case.

A comparison of this figure with that for residential burglary will reveal certain differences. The analysis of commercial burglaries should be systematically directed toward examining the following listing of informational factors:

- Crime type and classification
- Victim target descriptors
- Specific MO factors
- Geographic factors
- Property loss descriptors
- Physical evidence factors
- Suspect descriptors
- Suspect vehicle descriptors
- Time factors

The commercial burglar may be the juvenile criminal, the addict, or the true profes-

sional. Each of these types provides a different set of factors to analyze. The above listing is a composite of the three types.

3. *Robbery Analysis.* Armed robbery offenses also have good analysis potential. Armed robbery offenses contain a number of analysis factors similar to burglary although there are some differences in informational value. Like burglars, robbers will establish an MO pattern based on past successes. However, since the risk of apprehension is much greater for armed robbery, robbers are more apt than burglars to vary their MO patterns. An armed robber always exposes himself to apprehension, whereas the burglar is rarely seen. The analyst has in many cases a physical description of a robber, although victims' and witnesses' descriptions of the same suspect may vary greatly. The suspect's physical description is a valuable piece of information for collation and analysis.

The analysis of reported armed robberies is especially suited to listing cases in which MO patterns or physical description of the criminal offender is similar. If apprehended, a previously unknown armed robbery suspect can be shown to have committed a number of robberies by recontacting previous victims and witnesses of past listed robberies for possible photo portfolio identifications. In many larger departments different detectives may be investigating offenses committed by the same criminal without the knowledge that the case similarities exist. An analysis of reported robberies can do a great deal to aid in the detection and apprehension of the responsible criminal offender.

FIGURE 4-2
Typical Available Information Factors in a Commercial or Business Burglary

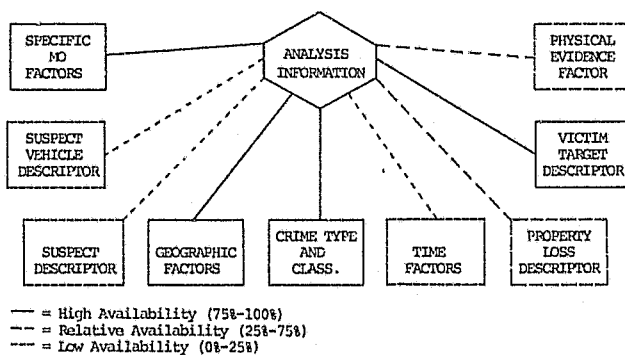
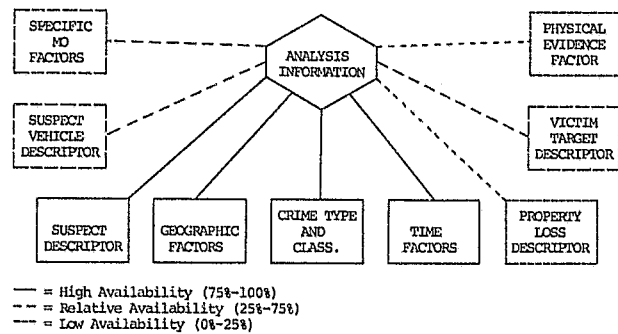


FIGURE 4-3
Typical Available Information Factors in an Armed Robbery



The analysis of armed robberies is well suited to identifying potential crime targets. In many cases a robber will attack only a particular class of person or business. Analysis of such data can be extremely influential in the deployment of tactical and special assignment police personnel.

Examples of the universal and crime specific informational factors for a typical armed robbery case in which the suspect is not immediately apprehended are depicted in Figure 4-3. The differences in informational availability can be seen when this figure is compared to that presented for burglary.

Especially note the suspect descriptive factors, property loss descriptors, and time factors. In residential burglary analysis geographical factors are of primary importance, while in commercial burglary the victim target descriptive factors are of special concern to the analyst. In the analysis of armed robbery, the analyst is more concerned with the suspect, vehicle, and the victim target descriptors. Less concern is paid to property loss and physical evidence descriptors. This is due to the low probability of tracing cash and connecting similar crimes through the use of physical evidence. In addition, information on specific MO factors (such as type and description of weapon) have a higher availability in cases of armed robbery. This provides a highly usable factor for connecting similar reported crimes.

The differences in information availability and value indicates that the analysis of armed robberies should be systematically

directed toward examining the information factors listed below:

- Crime type and classification
- Suspect descriptors
- Victim target descriptors
- Specific MO factors
- Geographic factors
- Suspect vehicle descriptors
- Time factors
- Property loss descriptors
- Physical evidence factors

The primary problem in analyzing armed robberies is the usual high mobility of the criminal offender. An analysis of armed robberies should not be restricted to closely defined geographical areas. Instead, the analysis should cover as large a geographical area as is possible.

4. *Strong-Armed Robbery and Theft from Person Analysis.* Strong-armed robberies (SAR's) and thefts from persons (TFP's) are well suited to analysis. The analyst will usually have less information in analyzing SAR's and TFP's than he has in armed robberies. However, this class of criminal offenders is usually more likely to operate in a given geographical area. The armed robber generally seeks a sizeable amount of cash, while targets of the strong-armed robber frequently include credit cards, checks, and other valuables in addition to cash.

The presence of physical evidence is more probable in SAR's and TFP's than in armed robbery because the criminal offender frequently discards such evidence as purses and wallets after completing the offense. The SAR and TFP offender frequently utilizes surprise as part of his MO in order to

reduce his chances of apprehension by physical identification.

The probability of universal and crime-specific informational factors for a typical SAR or TFP offense is depicted in Figure 4-4.

This figure shows the analyst has, in many respects, less total information available in analyzing SAR and TFP offenses than in armed robbery. The SAR and TFP offender is less apt to display specific MO factors than is the armed robber. The analysis of these crimes should be primarily concerned with systematic examination of cases according to the following listing:

- Crime type and classification
- Geographic factors
- Victim target descriptors
- Time factors
- Suspect descriptors
- Property loss descriptors
- Specific MO factors
- Physical evidence factors
- Suspect vehicle descriptors

The primary problems in analyzing SAR's and TFP's, as with burglary, are the volume and frequency of such crimes. Further, the problem is compounded by the frequent physical similarities of the offenders as described by victims and witnesses. These problems can be largely overcome by placing additional emphasis on the victim descriptors and geographical factors.

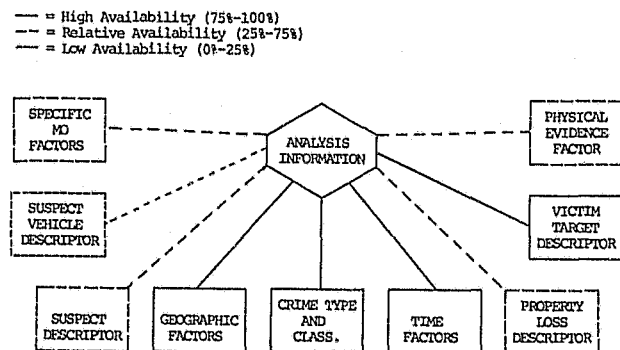
5. *Auto Larceny Analysis.* Auto theft is probably the best suited crime for analysis. The analyst frequently has more information available on any given auto theft than any other crime. Although suspect descriptive information is usually lacking in auto larceny cases, the greater availability of crime specific information makes auto theft extremely receptive to analysis.

Auto theft offenders include joy-riders, professional car dismantlers, and wholesalers of stolen vehicles. In many cases, until apprehended, all of these offenders will establish and maintain a particular MO.

Helpful elements in analyzing auto theft cases are the availability of information, the presence of physical evidence, and the ability of the property stolen to be traced. The probability of universal and crime specific informational factors for a typical reported auto theft case is depicted in Figure 4-5.

Of special importance in this figure are the geographic factors, suspect vehicle descriptors, and property loss descriptors. In

FIGURE 4-4
Typical Available Information Factors in a Strong-Arm Robbery or Theft from Person



analyzing an auto theft, the analyst usually has information concerning two geographic locations for analysis (location stolen and location recovered). Also, the suspect vehicle descriptors, property loss descriptors, and victim target descriptors are all the same. This greatly augments the analysis of auto thefts. In the following listing of general priorities, the suspect vehicle descriptors, property loss descriptors, and victim target descriptors should be considered of equal importance:

- Crime type and classification
- Geographic factors
- Victim target descriptors
- Suspect vehicle descriptors
- Property loss descriptors
- Specific MO factors
- Time factors
- Physical evidence factors
- Suspect descriptors

In an examination of specific MO factors in auto theft, the analyst will place emphasis on the condition of the vehicle when recovered. Factors of primary importance in analyzing auto theft cases are the recovery location, make and model, and the degree of stripping of the stolen auto.

6. *Larceny and Theft Analysis.* Theft reports of a general nature are not usually well suited to analysis. Some benefits are derived from analyzing larceny offenses when specific factors are selected; scrap metal thefts, for example, can be specifically analyzed. Another benefit in analyzing larceny offense is the possibility of correlating information to other analyzed crimes.

The problems encountered in attempting to analyze general theft cases result from the tremendous volume of reported offenses, the large number of possible crime types, and the many possible MO patterns. In order to analyze theft cases, the analysis

operation must first restrict the number of cases and crime classifications to a workable level. This may be done by classifying general theft cases into special categories and analyzing them by considering only special MO factors. Logical subclassifications include thefts from autos, thefts of auto accessories, scrap metal thefts, bicycle thefts, shipping dock thefts, tool and equipment thefts, etc.

Many of the general theft cases received by the crime analysis section will be helpful in analyzing other crime types. For example, an increasing trend in automobile parts thefts may have common perpetrators involved in auto theft and stripping.

Due to the great number of possible crimes encompassed in theft and larceny statutes, a listing of informational factors and their values is difficult to construct. The following listing represents a more general set of analysis priorities than those previously presented, and may be useful in considering general theft analysis:

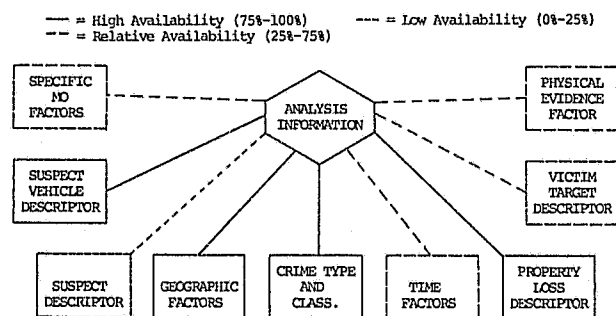
- Crime type and classification
- Property loss descriptors
- Victim target descriptors
- Geographic factors
- Specific MO factors
- Time factors
- Suspect descriptors
- Suspect vehicle descriptors
- Physical evidence factors

Whether a crime analysis operation considers performing an in-depth analysis of general theft cases will be left to the discretion of the individual agency. The analysis section should have access to general theft information for review, collation, and correlation purposes. When particular patterns appear, the analysis section can undertake specific in-depth analysis programs.

7. *Rape and Sex Crime Analysis.* Rape and sex crimes fall into two distinct categories, (1) those in which the criminal offender is known to the victim and (2) those in which he is unknown (stranger-to-stranger). Those cases in which the offender is known to the victim are of limited informational value to the analyst. The in-depth analysis of rape and sex crimes should be restricted to those cases in which there is no apparent relationship between the suspect and victim. Rape and sex offenses in which the victim knows the suspect are often crimes of opportunity. Usually a particular MO is not established by these offenders. On the other hand, the rapist or sex offender committing crimes of

FIGURE 4-5

Typical Available Information Factors in an Auto Theft Offense



the "stranger-to-stranger" type will usually provide definite MO information. These cases are also more likely to result in prosecution.

The habitual criminal sex offender will establish definite MO patterns, making his crimes well suited to analysis. The burglary with rape motive, for example, is particularly well suited to analysis, as is the kidnapper-child molester. The advantages to analyzing rape and sex offenses of the stranger-to-stranger type lies in the seriousness of the crime, its relative rareness, and the availability of information for a particular offense or body of offenses.

The probability of universal and crime specific informational factors for a typical reported rape or sex offense of the stranger-to-stranger type is depicted in Figure 4-6. As can be seen, the "property loss factor" has been changed due to its lack of applicability.

As with armed robbery, the suspect descriptive factors are of primary concern to the analyst in examining rape and sex offenses. The victim descriptive factors are also of importance in analyzing rape and sex offenses; in many cases, the perpetrator will restrict his attacks to victims of a certain age, a particular race, or particular occupation grouping. The analysis of rape and sex crimes should consider examining cases according to the following listing based on information availability and value:

- Crime type and classification
- Suspect descriptors
- Specific MO factors
- Victim target descriptors
- Geographic factors
- Time factors
- Suspect vehicle descriptors
- Victim-suspect relationship
- Physical evidence factors

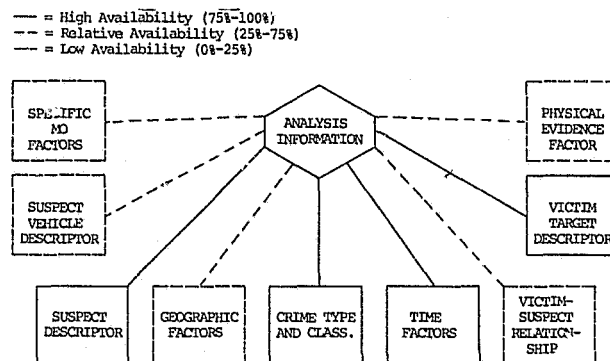
8. *Forgery and Fraud Analysis.* Forgeries and fraud cases can provide correlative information on other reported criminal offenses such as burglary and strong-armed robbery. The analysis of forgeries is also aided by the fact that most forgers are repeaters who have established definite MO patterns.

Although forgery and fraud offenses are difficult to prevent or suppress, these are crimes that can be solved if available information is effectively utilized. The analyzed information from forgery and fraud cases can be most effectively used by individual detectives or investigators. For example, by

reviewing forgery cases the crime analysis section should be able to forward information to a burglary investigator that a particular suspect was apprehended passing a check stolen in a burglary case that had been assigned to that particular investigator.

In addition to serving in the apprehension of offenders, analysis of forgery and fraud cases can generate information that is disseminated to area merchants in the form of "Check Warning Bulletins". The use of these bulletins can enhance community relations.

FIGURE 4-6
Typical Available Information Factors in a Rape or Other Sex Offense



The principal problem encountered in analyzing forgery and fraud cases is the temporal availability of information. In many cases a delay of between three or four days to a month occurs between the time the offense was committed and the time it was reported. For this reason analysis of forgeries should be limited to review, collation, and correlation comparison to recorded and extracted information. When a suspect is apprehended, this information can be retrieved to generate the appropriate investigative leads.

9. *Aggravated Assault and Murder Analysis.* Most criminal offenses constituting aggravated assault and murder do not lend themselves to analysis. The comparative rarity of these crimes involving complete strangers makes it difficult to plot and predict aggravated assaults and murders. To effectively predict aggravated assaults and murders, a tremendous amount of time and research will be necessary.

The information on reported aggravated assaults and murders should be reviewed by the crime analysis operation to utilize its supportive functions of criminal information comparison and correlation. The intelligence function of the crime analysis operation may provide information crucial to solving a

murder case by generating investigative leads.

In cases where the aggravated assault or murder is committed in relation to another crime (such as rape-murder, robbery-murder, etc.) the crime analysis operation can perform a more detailed analysis based on available information and communication coordination.

B. Geographical Analysis

A geographic analysis is performed to determine information not available in either the original data element source (a crime report for example) or the geographical measuring device (such as a map). For example, when a pin is used to indicate a crime location on a map, the relationship to other reported crimes of the same type becomes apparent to the analyst. Geographical analysis can be performed by mapping, graphical or statistical methods.

Mapping analysis techniques involve the use of a map to depict the actual geographical relationships between particular criminal events according to prescribed data elements. A pin map displaying the actual locations of day or night residential burglaries over a given period of time is an example of such a technique.

Graphical analysis methods include the comparison of prescribed geographical areas to a body of crime data.

Statistical methods of geographical analysis categorize the total number of crimes according to location of occurrence within a number of prescribed geographical areas and reduced to percentage figures of the total.

Thus, a bar graph with 15 bars, each listing percentage figures for a particular crime type for different mobile patrol areas for a given time period, represents a tabular presentation of percent of reported crime type by geographical area by period of measurement.

1. *Manual Visual Techniques.* Manual visual geographical techniques involve a manual process for the visual analysis of crime information. This may include pin-maps, symbol maps, dot maps, or other means of depicting crime location. Several different techniques will be discussed.

Before the various techniques can be discussed, several different things must be considered. These include the number of data elements that are to be recorded in the mapping, the temporal considerations that must be met, the retrievability of stored data, and the number of maps to be maintained.

The number of data elements to be recorded on a map can dictate the technique to be utilized. For example, if the case number is to be recorded in conjunction with the location of offense, a dot (color-coded, self-adhesive paper disks) map or flag pin map can be utilized, whereas a typical color-coded pin map cannot. If particular MO factors are to be recorded, various color-coded and marked pins can be utilized for identifying specific MO patterns.

In addition, the length of time a particular map or set of maps is maintained should be considered. No set rules have been established regarding map maintenance time; however, a number of agencies with operating crime analysis systems were surveyed. Generally, the maps are maintained either for a one to three month period, or two maps were maintained for each crime type (one on a weekly or monthly basis and the other on a year to date or quarterly basis). This decision should be based on the volume of crime types for the area to be mapped, physical space limitations, the specific mapping technique adopted, and the number of maps to be maintained.

Stored map data should be easily retrievable for use in comparisons of data. Pin maps can be recorded by photographic means. The use of two slide projectors to superimpose one figure over another is one effective method of data retrieval. The use of color-coded paper dots placed on acetate overlays covering area maps facilitates the retrieval of recorded data. Computer-produced, coded area maps can be of great benefit and are easily stored.

The number of maps to be maintained must be based on physical space limitations, staffing of the analysis section, the types of crimes selected for analysis, and the maintenance period for each map. The agencies surveyed maintained from 18 maps to 3 maps. There are five crime types suited to geographical analysis (burglary, robbery, special theft classifications, auto theft, and sex crimes). In addition, two of these have logical subclassifications (burglary—commer-

cial or residential, and robbery—armed or unarmed). Thus, a total of seven crime types and classifications is established.

The number of maps to be maintained by the crime analysis section can be reduced by utilizing one map to record more than one crime type. For example, commercial and residential burglaries can be placed on the same map by using different colored pins for each type of crime. The incorporation of numbered pins of different colors can be used to designate the type of premise attacked. Armed robberies and strong-armed robberies can be mapped together by using pins of a different color, dotted or striped pins can be used to designate the race of the offender. Auto theft and recovery maps may be kept on the same map with recorded information on thefts of vehicle parts.

The number of maps maintained should reflect the needs of the agency according to the volume of reported crimes and the different data elements or informational factors to be recorded. Thus, the more detailed the analysis, the more maps required. The actual number of maps to be maintained must be left to the discretion of the individual agency; however, a starting point for this decision might be to consider keeping one map for each of the seven crime classifications for the present period, on a weekly or monthly basis, and either keep the previous period recorded map or maintain a year-to-date activity map. Fourteen maps, therefore, may be considered a point to work from.

The crime analysis section might also maintain specialized maps depicting the last known residences and crime speciality of certain offenders. Other maps might depict the locations of those who deal in stolen property or narcotics.

A number of the police agencies surveyed have developed highly sophisticated geographical analysis techniques based on variations of the pin map method. These include the Oakland Police Department, Chicago Police Department, Detroit Police Department (7th Precinct), and several others. An illustrative example is the analysis possible from a recovered (stolen and stripped) vehicles pin map used in Chicago². The location of an auto theft and the make of the vehicle is designated according to the following codings:

1. Cadillac = white with red dot
2. Chevrolet = yellow
3. Ford = red
4. Pontiac = pink
5. Other = red with white stripe

The location of recovery and parts stripped is then designated by a pin coded from the following:

1. engine = orange
2. transmission = purple
3. interior = pink
4. combination or other = dark blue
5. no evidence of stripping = yellow

The two locations and pin designators are then connected by a yellow string for previous period activity or a red string for present period activity.

The following pin map key for the armed robberies of businesses reveals a sophisticated mapping system.³

The color of the pin indicates the race of the offender and also the number of offenders:

1. Black—indicates 1 negro offender
2. Blue—indicates 2 or more negro offenders
3. White—indicates 1 white offender
4. Orange—indicates 2 or more white offenders
5. Yellow—indicates 1 other offender (Latin, oriental, etc.)
6. Green—indicates 2 or more other offenders

The numeral on the pin indicates the victim establishment type:

- 1 = bank, savings and loan
- 2 = cleaner
- 3 = bus, train, or station
- 4 = delivery driver
- 5 = drug store
- 6 = finance company
- 7 = gas station
- 8 = grocery store
- 9 = hallway person
- 10 = home and apartment
- 11 = hotel or motel
- 12 = jewelry store
- 13 = misc. small business
- 14 = medical offices
- 15 = restaurant
- 16 = taxi
- 17 = tavern, liquor store

In many cases, particularly in departments with smaller geographical areas and popula-

² Chicago Police Department Detective Division Headquarters Operations Manual, Appendix C.

³ Chicago Police Department Detective Division Headquarters Operations Manual, Appendix F.

tions, aerial photographs can be utilized for pin-mapping purposes with positive results.

An interesting variation of the pin map technique is the use of small color-coded target symbols to designate the time, type, and location of general crime types. This method is particularly well suited to photographic slide recording methods. Color stripings or numerals can also be used with this method to indicate the codings for property loss indicators. For example: a light blue small house symbol with a red stripe would indicate that the house burglarized was a single family type attacked in the morning or early afternoon and a firearm was reported taken; or a dark blue auto symbol with a yellow stripe would indicate an auto burglary committed in the late afternoon-early evening and camera equipment was reported stolen. The informational content of this type of analysis is almost endless.

The use of self-adhesive color-coded dots applied to acetate plastic map overlays is another manual visual geographic analysis technique. Using large area maps mounted on slides, the Dallas Police Department Operations Analysis Section maintains several crime type maps with the crime locations designated by paper dots on which the report number is written. The color of the dots is changed monthly and the plastic overlay changed quarterly. The removed plastic overlay is then placed on a previous quarter period map and the preceding previous quarter period overlay is rolled up, although still readily accessible. This technique avoids damage to expensive wall maps. Although the paper dots are only slightly larger than a typical map pin (approximately $\frac{1}{4}$ " in diameter), it is important to note that a specific case number can be recorded on each dot. The dot method facilitates the compiling of lists of specific cases occurring in a defined area. This may be useful to a detective who desires a list of cases about which he may interrogate a particular suspect. This method also makes the task of correlating other information easier by increasing the retrievability of information not recorded on the map. The analyst need only check the report as indicated to verify suspected similarities between crimes.

2. *Computer Mapping Analysis.* The use of the computer has several important advantages over the manual visual mapping techniques.

- The computer can not only be pro-

grammed to plot the locations of the crimes but can also indicate certain patterns.

- The computer can be programmed to provide regular printouts on a daily, weekly, and monthly basis.
- The computer can be queried to provide printouts of combinations of different crimes, specific crimes or composites of all crime types.

An example of a computer generated map is presented in Figure 4-7. This is a reduced reproduction of an actual map received from the St. Louis Police Department.⁴ The original map is color coded (not shown in the reproduced map) with red print indicating first watch activity, blue print indicating second watch activity, and black print indicating third watch activity. In addition, the circles indicate areas of high activity deserving special consideration. The computer is, in many respects, analyzing the data.

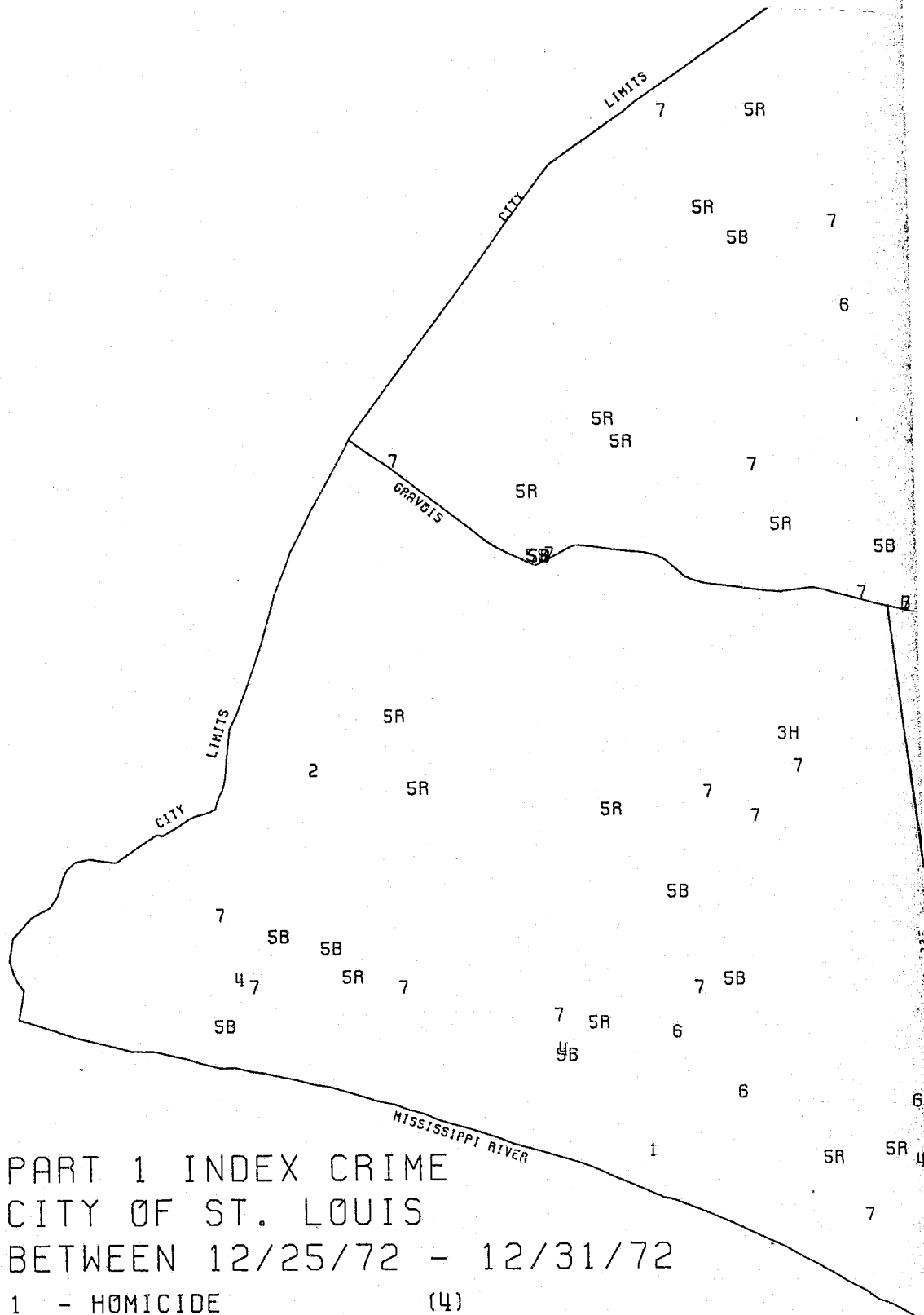
3. *Graphical Geographical Analysis Techniques.* Graphical analysis methods include the comparison of prescribed geographical areas to a body of compiled crime data. The compiling of raw data elements into totals which are plotted on graphs can be extremely useful in identification of criminal trends. This method of analysis is well suited to comparing criminal activity of a given type in different geographical areas.

Two examples of graphic analysis are provided in Figures 4-8 and 4-9. The first figure represents a comparison of the total reported burglaries for a prescribed geographical area (such as a city or precinct-district) which contains 10 reporting districts (such as patrol car areas).

This type of analysis is useful when performed on a weekly basis for review and identifications of crime trends which might go unnoticed on a pin map kept on a monthly basis.

Figure 4-9 illustrates a graphic analysis technique for determining the relationship of the present year's crime and clearance rates to those of previous years for a particular crime type. The example, in this case, illustrates that between the seventh and fourteenth weeks the present crime rate was significantly higher than the previous year's, but that it was somewhat less after the fifteenth week.

⁴ Pauly, G. A., McEwen, J. T., Finch, S. J., "Computer Mapping—A New Technique in Crime Analysis," *Law Enforcement Science and Technology*, Vol. 1, Thompson Book Company, Washington, D.C.



PART 1 INDEX CRIME
 CITY OF ST. LOUIS
 BETWEEN 12/25/72 - 12/31/72

1	- HOMICIDE	(4)
2	- RAPE	(7)
3H	- HIGHWAY ROBBERY	(59)
3B	- BUSINESS ROBBERY	(31)
4	- ASSAULT	(56)
5R	- RESIDENCE BURGLARY	(211)
5B	- BUSINESS BURGLARY	(110)
6	- LARCENY (OVER \$50.)	(70)
7	- AUTO THEFT	(204)

+

TOTAL (752)

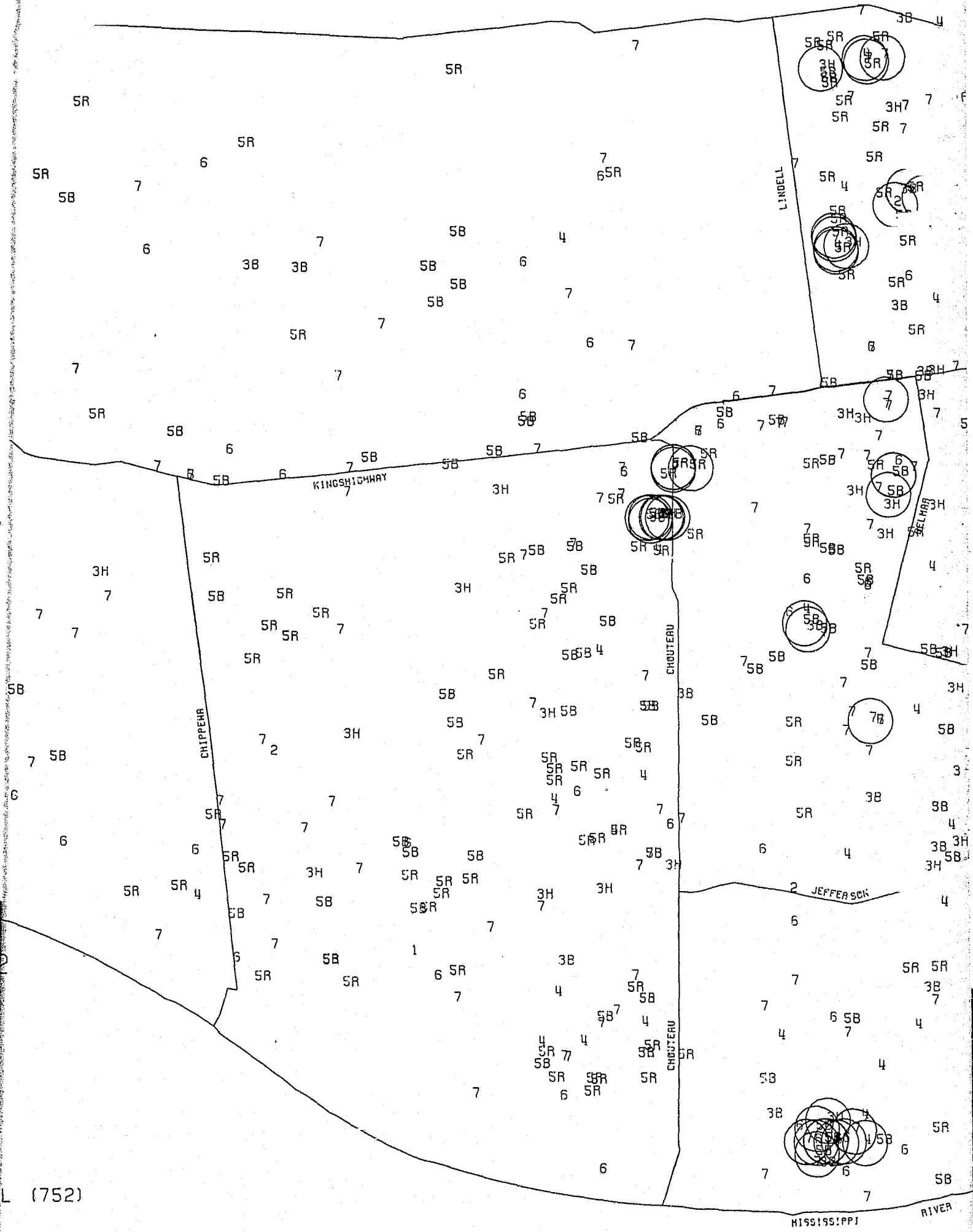
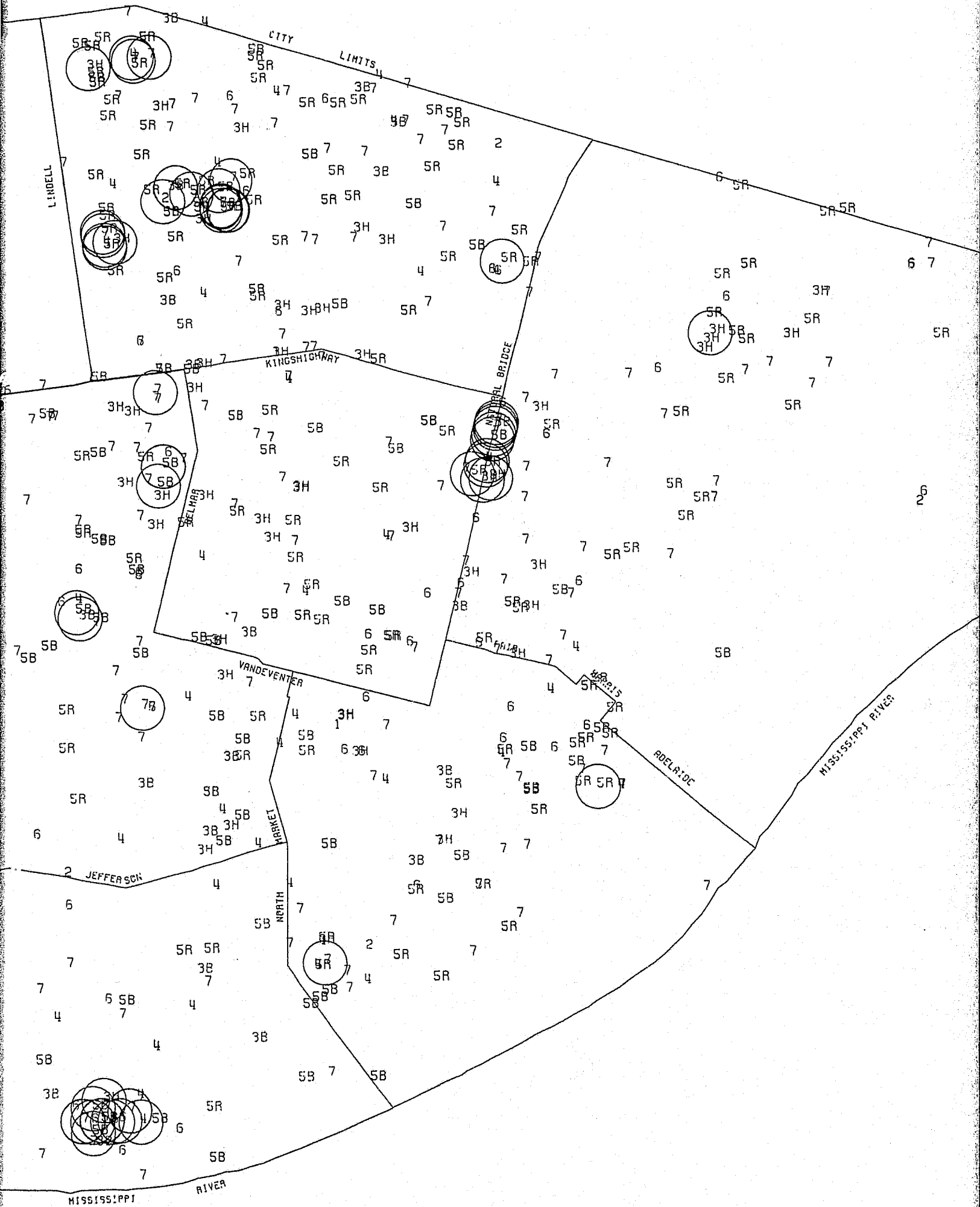
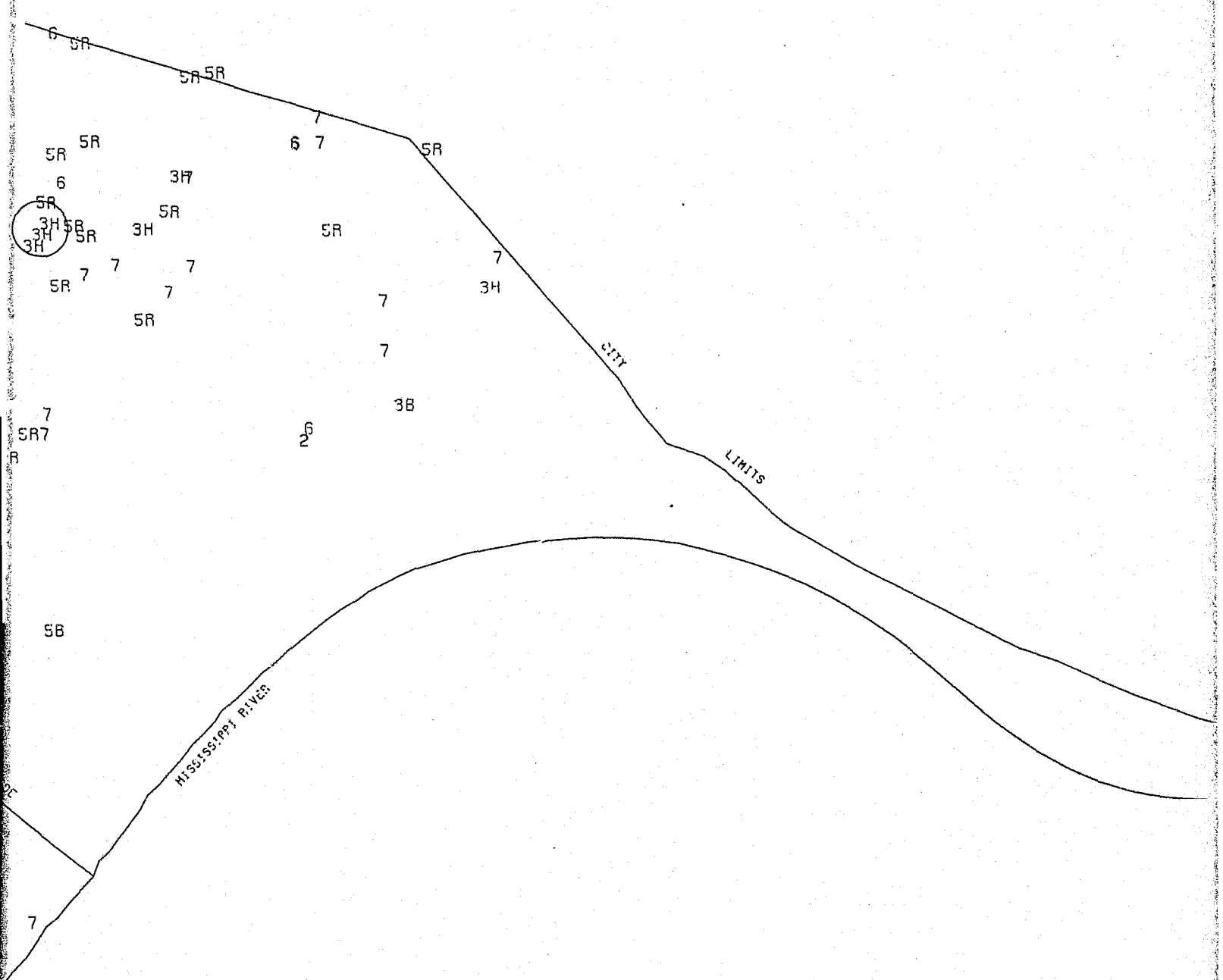
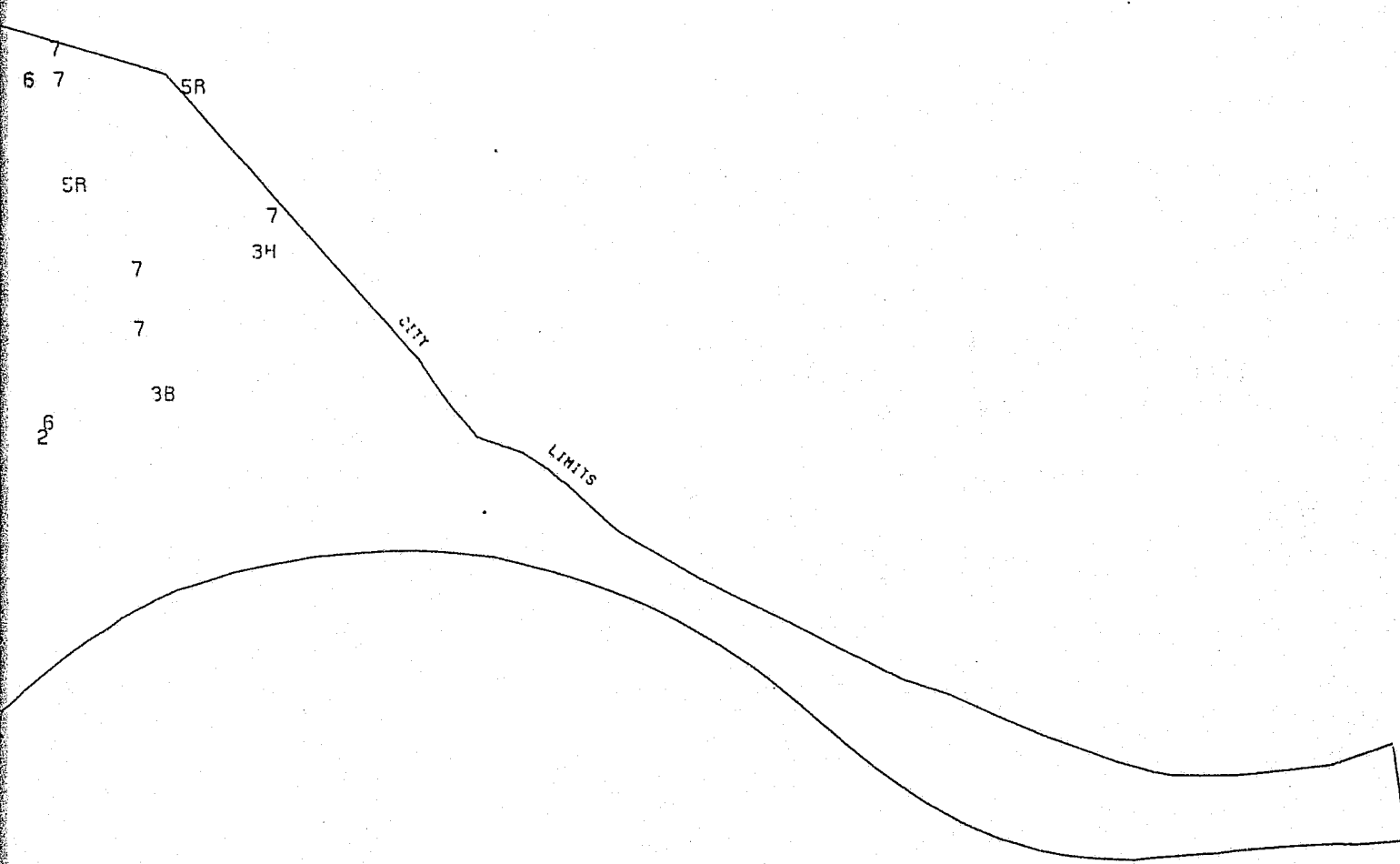


FIGURE 4-7
Reduction of a Computer Generated Crime Type Map





— FIRST WATCH
 — SECOND WATCH
 — THIRD WATCH



- FIRST WATCH
- SECOND WATCH
- THIRD WATCH

FIGURE 4-8
 Example of a Graphical Analysis of Burglary by Geographical Beat Area

N											
U											
M											
B											
E											
R											
25											
24											
23											
22											
21											
20											
19											
18											
17											
16											
E			0							0	
P			0							0I	
O			0							0I	
R			0							0I	
T			0							0I	
E			0							0I	
D			0		0			I		0I	
9	0		0		0		X 0	IX		0I	
8	0		0		0		X 0	IX		0I	
O	0I	X	0	0	0		X 0	IX	I	0I	
7	0I	0IX	0	0I	0	0 X	0IX	0	IX	I 0I	
F	0I	0IX	0	0I	0	0 X	0IX	0	IX	I 0I	
6	0I	0IX	0	0I	0IX	0IX	0I	0IX	0I	0I	
F	0I	0IX	0IX	0I	0IX	0IX	0IX	0IX	0I	0I	
5	0I	0IX	0IX	0I	0IX	0IX	0IX	0IX	0I	0I	
E	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0I	0IX	
N	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	
S	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	
E	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	
1	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	
S	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	
0	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	0IX	
	BEAT NO.	1	2	3	4	5	6	7	8	9	10

0 = Residential Burglary
 I = Locked Vehicle Burglary
 X = Business/Commercial Burglary

This type of plotted graph can also be useful in analyzing data for the day of the week. This is shown in Figure 4-10.

4. Statistical Geographical Analysis Techniques. Statistical analysis of crime information for geographical areas can be very useful in

determining where and for what purpose tactical and special assignment personnel should be deployed. For example, a percentage analysis of purse snatch and strong armed robberies for a particular city during a one-month period might indicate that 75% of these crimes occurred in an area comprising approximately 25% of the city. A monthly manual-visual map analysis would identify this as a pattern, probably within a week or two at the most.

Statistical geographical methods are well suited for computer operations but are not well suited to manual methods. Generally, statistical methods performed manually are too time consuming as a primary method. On the other hand, statistical geographical methods can be a primary method in a system with extensive computer capabilities.

For example, a crime analyst working in an automated system might query a computer terminal regarding how many burglaries had occurred in a given area for a particular period. The computer would provide this information almost instantly. Later the same analyst might ask the computer

FIGURE 4-9

Example of a Graphical Analysis of the Present 6-month Period Compared to the Same Period of the Previous Year for the Residential Burglary Rate

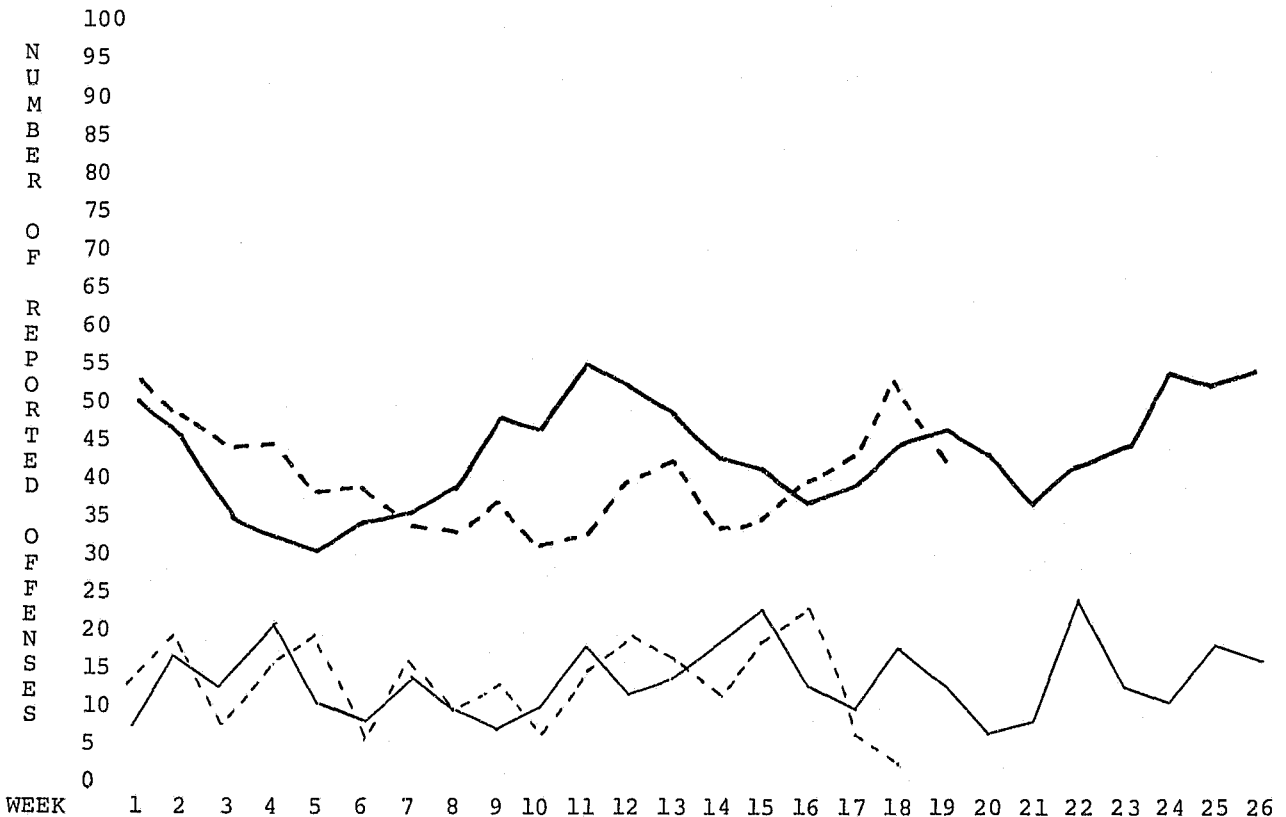
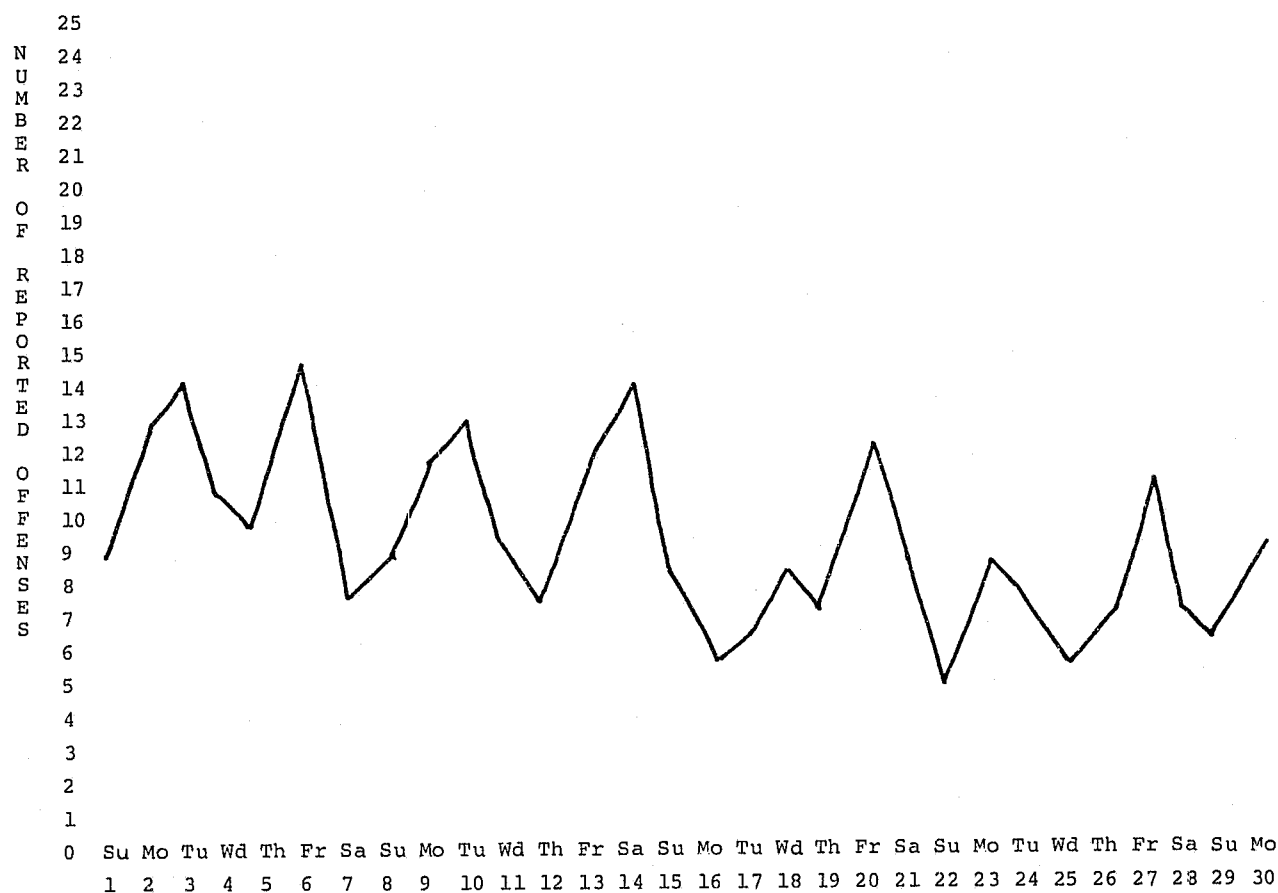


Figure 4-10
Example of Graphical Analysis of Reported Residential Burglaries by the Day of the Week



what percentage of the total burglaries this figure represented and what percentage of the total geographical area this subunit comprised. The computer could be programmed to provide this information on a regular print-out for analysis. By utilizing grid systems and geo-coding methods, computer technology can provide extensive geographical statistical crime analysis.

Statistical analysis of crime report data by geographical analysis can determine the probabilities of crime occurrence within different geographical areas. Murray Spiegel⁵ provides numerous examples of statistical applications of multiple and partial correlation as well as analysis of time series for determining trends. Although not dealing directly with crime analysis or police problems, many of the examples provided by Mr. Spiegel have parallels applicable to crime analysis.

C. Data Correlation Techniques

The correlation and collation of crime analysis data is dependent upon the expertise of the analyst, the analytical techniques utilized, and the availability or retrievability of stored or recorded crime data. All of these variables may be considered equally important because deficiencies in any one area will result in an overall lowering of crime analysis effectiveness.

The skill and motivation of the individual analyst greatly influences both the number and quality of crime data correlations attempted and performed. Much of the information received and analyzed in crime analysis is subjective and ambiguous in nature. Thus, the analysis function requires considerable interpretive ability.

The vast majority of the correlations made by the analyst will be a result of memory recall responses. For example, in reviewing field contact card information, the analyst might read that a WM (white male) wearing a navy pea coat was interviewed in a certain

⁵ Murray R. Spiegel, Ph.D., *Schaum's Outline Series*, McGraw Hill, 1961.

area driving a white/blue Chevrolet. The circumstances surrounding the contact might indicate that the card be forwarded to the burglary unit. In reviewing the card, however, the analyst might recall that a WM wearing a navy pea coat had committed an armed robbery in another area. The particular robbery case could be retrieved and the information correlated to the contact card. Should this comparison provide additional information verification, the contact card information could be forwarded to the robbery detail.

The analytical techniques employed by the analyst will affect the number and quality of correlations by providing several points at which a memory recall response might be initiated. The use of extensive crime logs can provide one point at which a memory recall response might be initiated as the data from a particular case is being extracted and recorded. Another memory recall point might be at the time a specific case is being plotted on a map and the geographical relationship to other recorded cases becomes apparent. Numerous other examples of this type can be cited.

As with the techniques described above, geographic correlations can be simplified by the use of crime location mapping. A comparison between residential burglary locations and proximity relationship to known stolen property fences can easily be seen if the dealers' locations have been marked. A location map of known criminal offenders' residences provides a correlative means for determining possible suspects for criminal activity in a particular area.

The availability and retrievability of stored or recorded crime data greatly influences the analyst's ability to verify correlations and data collation generated by a memory recall response. Should the data be difficult to obtain, the analyst may defer any verification effort. Cross index filing methods can greatly increase informational data retrievability.

Computer storage of extracted data provides almost limitless collation and correlation potentials. In addition, the time consumed in obtaining the data for verification and augmentation is tremendously reduced. For example, an analyst might receive a request to obtain a listing of residential apartment burglaries in which a revolver had been taken for a vague geographical area over a period of two weeks (as would be

the case if a detective obtained information from an informant who had limited knowledge of the crime and specific knowledge of the suspect). The analyst working in a manual system might require 15 to 30 minutes to extract this listing from crime logs or card files. The analyst working with a well-programmed computer terminal would obtain this information in a matter of a few seconds.

The Miami Police Department has developed an extensive coding system based on the physical characteristics of known robbery suspects. Using a felony screening process for these subjects, approximately 40 physical characteristics are examined with over 300 possible physically distinctive sub-categories. The extracted data is coded and cross index filed for retrieval purposes. Using this system a list of potential suspects based on the available physical description can be obtained for any given robbery. In addition, investigative information is generated.

Mechanical storage of MO data greatly increases its usefulness and availability. The use of small computers for this purpose facilitates effective utilization of the extracted information. Several law enforcement agencies are presently operating such systems. These include the Cincinnati Police Department, the Oakland Police Department, the Long Beach Police Department, etc. The Cincinnati Police Department, using a Miracode system of mechanical storage, has developed a coding system based on physical characteristics and crime type in conjunction with a single print coding method. By providing the machine information on the type of crime and physical characteristics of the criminal, the analyst or investigator receives data on a number of the subjects fitting the input criteria. As the computer is provided additional information, the number of suspects can be reduced and specific information on each subject (along with a booking photo) may be shown on the video screen.

The correlative linking of specific crimes to specific criminal subjects can be tremendously facilitated by utilizing the above methods of information utilization.

D. Identification of Crime Trends and the Projecting of Criminal Activity

Reported crimes on criminal activity show variations and fluctuations according to sev-

eral influencing variables. One of the most important purposes of a crime analysis operation is to identify volume changes in any type or body of crime at the earliest point in time. By utilizing the various analysis techniques, the crime analysis unit can identify patterns and crime changes and make this information available to others. Once a crime trend or pattern increase has been identified, a strategy can be formulated to eliminate or alter the pattern.

For example, a city (or precinct-district) with a population of 100,000 might have an average residential burglary rate of 200 to 250 reported offenses per month. The addition of one addict-burglar committing two offenses per day, seven days a week, will cause an increase in this rate of from 22.5% to 28% per month. A daily and weekly analysis of the residential burglary picture should identify this increase within a period of several days. In this case, a deviation from the norm is identified at the earliest point in time after a particular MO pattern has been established.

In a further study of this case, the analyst might note that the crime pattern was geographically restricted. The analyst could then examine the time of occurrence data and, using a statistical analysis, find that 62% of the reported residential burglaries in this area occurred between 1000 and 2000 hours, with 70% of this category occurring between 1200 and 1800 hours. Thus, in the first category, it is shown that 62% of the

reported offenses occurred in 41% of the available time period; in the second case, 42.5% of the total reported offenses occurred during 25% of the available time period.

By using the above developed data, a deployment plan might be adopted for assigning special assignment personnel, possibly plain clothes officers in unmarked cars, to this area for a given time period.

Analysis of crime data can also be used to statistically project criminal activity. In some cases, a crime analysis section might be asked to determine the effect of a rezoning or building project on the crime rate. City boundaries change when the city incorporates or annexes additional land, or when a previously unused area of land is designated as the site of a high-density housing project. The crime analysis operation, by selecting a similar housing complex for comparison, could predict, with some validity, the effect this complex would have on the crime rate for the particular police assignment area.

In many cases, the crime analysis section will undertake the task of identifying potential crime targets which require the deployment of special assignment personnel. By recording information on known highly probable targets, the analysis section can examine these frequent targets to determine what factors make these so attractive to the criminal. The analysis personnel should go into the field to identify, for predictive purposes, possible potential targets.

Chapter V

DISSEMINATION AND UTILIZATION OF CRIME ANALYSIS INFORMATION

A. Dissemination Techniques

FOR CRIME ANALYSIS to be effective, the information developed from the analysis must be communicated to those personnel capable of utilizing it. There are various techniques for performing this communication, both formal and informal.

Formal dissemination methods include periodic publications, and scheduled meetings. This type of communication is expected and structured. Informal dissemination of information results from personal contact and individual involvement. Usually, this communication is disseminated to others in unexpected and unstructured forms.

For functional efficiency, most of the information disseminated by the crime analysis section will take a written form. The various written techniques for crime analysis information dissemination are presented in condensed tabular form in Table 5-1. It becomes apparent from reading the contents of Table 5-1 that a crime analysis operation can be considered a system for criminal information dissemination and coordination.

1. *Daily Crime Recap (DCR)*. The Daily Crime Recap is a listing of selected crimes reported during the previous 24 hour period. This listing can provide a great deal of information covering crime type, classification, date, time, location, evidence, suspect and vehicle information, and particular MO factors. The information contained in the DCR is extracted from the original offense reports by the crime analyst. It is condensed into a form systematically distributed to

patrol, tactical, and investigative personnel. An example form for a DCR is presented as Figure 5-1.

Since the DCR information is highly confidential, it should be restricted to the use of official law enforcement personnel. One method of satisfying this requirement is to have the immediate line supervisor distribute the DCR to his supervised personnel at the pre-duty briefing. Another method of controlled distribution is to have a clerk or cadet deposit the DCR in each officer's departmental mail box.

The DCR is utilized primarily for crime suppression through officer awareness, information coordination through increased involvement, and investigative review for collation and correlation.

For optimum utilization, the DCR can be used as a personal record for recipient personnel. The department may direct personnel to retain the DCR in a loose leaf or ring binder for a specified period (3 months for example); thus, each officer is provided with a personal record of reported crimes in a reference log form.

The records and services division in many departments provides something very similar to a DCR. This material, however, is prepared by a clerk with little knowledge of what information is pertinent. The experienced crime analyst should be the person to extract information to be condensed and disseminated to user personnel.

The greatest problems associated with the DCR are encountered by the large departments. Problems such as large volume of reported crime may make it impractical to condense and reproduce information for inclusion within the DCR. These problems can be largely overcome by dividing jurisdictional areas into sub-units (such as existing precincts or districts) and issuing individual DCR's for these areas.

Many of the larger departments also distribute a district crime summary with the DCR. The district crime summary consists of a breakdown of reported crimes by type and district, beat or reporting area. The Detroit Police Department has had this capability programmed into their computer system so that the previous 24-hour breakdown is available at any time.

2. *Daily Information Bulletin (DIB)*. The Daily Information Bulletin contains general information on wanted persons, requests for informational assistance, missing persons

TABLE 5-1
Various Formal Written Dissemination Techniques for Crime Analysis Information

	DISSEMINATION TECHNIQUE	INFORMATION CONTENT	BASIS	RECIPIENTS	PURPOSE and UTILIZATION
DAILY	DAILY CRIME RECAP	Listing of selected crimes reported during the previous 24 hour period. Covering: crime type; classification; date; time; location; evidence; and M.O. factors.	Information extracted from reported offenses and disseminated in capsule form	Patrol personnel Tactical & Special assignment personnel Investigative personnel	Crime suppression Officer awareness Information coordination Investigative review
	DAILY CONFIDENTIAL INFORMATION BULLETIN	General information concerning wanted persons, assistance, missing juveniles, major crimes not usually in DCR, and other crime particular information.	Information extracted from miscellaneous reports. Information received from individual patrol and investigative personnel. Outside jurisdiction information received.		Criminal apprehension Officer awareness General service information Information coordination
WEEKLY	KNOWN OFFENDER IDENTIFIER or M. O. BULLETIN	Information on known or suspected criminal offenders, with; photo of subject, crime specialty, past arrests, addresses, associates, vehicles, and request for field contact information, etc.	Data extracted from; Offense reports, Arrest reports, Supplemental reports, Field contact reports, pawn slips, probation records, etc. Also "soft intelligence" as received from informants & other criminals.	Chief Executive Patrol supervisors Tactical supervisors Investigative supervisors	Criminal apprehension Officer awareness Investigative information Information coordination
	WEEKLY CRIME SUMMARY	Report on crime rate, percentage increases or decreases to previous weeks and years, breakdown by area and crime type. Selected problem areas. Presented with graphic representation.	Information extraction, tabulation, comparison, and correlation with recorded information. Statistical breakdown and analysis.		Administrative review Crime suppression line manpower deployment information Strategy review & evaluation
ISSUED	WEEKLY PUBLIC NEWSLETTERS	General crime information concerning particular areas and problems. Home alert information and special police programs. Crime statistics for public knowledge.	Information extracted from selected crime reports, arrest reports, and supplemental reports.	General public and concerned citizens groups	Community relations Crime prevention through increased citizen awareness and involvement
ISSUED MONTHLY	MONTHLY ANALYSIS SECTION REPORT	General report on analysis section monthly activity and effectiveness.	Section feedback information, number of cases analyzed, number of reports issued and content, and comparison report on apparent effectiveness.	Chief Executive or supervising administrator	Management information Unit review and evaluation
NEEDED	CRIME PATTERN IDENTIFICATION BULLETINS	Directive report that a particular area is experiencing a particular M.O. pattern for a particular crime type or class. Included should be: all available suspect and vehicle information and potential crime targets.	Correlative analysis of reported crime by; area, crime type, M.O., suspect & vehicle information, time, and other factors. Analytical expertise.	Patrol supervisors Special units Tactical units Investigators	Crime suppression by identification of the problem Criminal apprehension of the responsible Special manpower deployment eliminate the pattern
AS	INVESTIGATIVE LEAD or CORRELATION REPORT	Report to an investigative unit that a particular case exhibits similarities to other reported offenses or available suspect information. Listing of cases for suspect interrogation.	Correlative analysis of the particular report or class of cases to other available crime analysis information.	Investigative unit or detective having follow-up responsibilities	Criminal apprehension for a particular case or pattern of cases
ISSUED	SPECIFIC MAJOR CRIME BULLETINS	Available information on a particular major crime with a request for assistance to any agency having additional information	Information extraction and condensation from a particular offense.	Other law enforcement and criminal justice agencies	Criminal apprehension
BY REQUEST ONLY	SPECIAL IMPACT or EVALUATION REPORT	Specific study information on proposed or implemented programs or projects with regard to effect on crime rates or percentages	Analysis of available information on similar or related programs or projects.	Requesting unit, city agency, or departmental division	Community planning Management information

FIGURE 5-1
Example of the Daily Crime Recap

CRIME ANALYSIS SECTION <u>DAILY CRIME RECAP</u> Wed:14 Mar 1973									
OFF. NO. & R.O. NO.	DATE	TIME	LOCATION	SUSPECT INFORMATION	VEHICLE	EVIDENCE	M. O. INFORMATION	PROPERTY LOSS DESCRIPTION	BEATS SEC.
Reported Residential Burglaries									
72-7822 712P	13 Mar	1230-1415	405 Golden Gate Apt. 9; old apt. house, mid-block	NA	NA	3Pvprint 1* palm	app. key used or lock slipped; neat search of drawers & cabinets	woman's BULOVA watch jewelry, \$25.00 in misc. coin	067-705
7-7828 559P	13 Mar	0900-1530	5511 Columbia single dwelling	WM 20 lg. brn. hr. thin build NFD WP 18 lg. bnd hr. driver of vehicle	66-7 Chev 2D-HT blk w/ dam. rr	2* print	pry kitchen window took small & med. size items. app. fled to adj. St. & met girl in car	SONY cas. tape NFD G.E. port. B & W TV CANON 35mm camera	167-317
7-7830 614P	13 Mar	1330-1630	612 So 39th St. Apt. D; new apt. house	NM 22 6'160# blk leather coat, lace boots, blk floppy hat, pimp shades	NA	door knob & tool (marks, no v prints)	channel lock front door cased by knocking of doors; asked wit. if "Jean" lived in apt.	men's & woman "SEIKO" w-watches; jewelry; BofA pers. checks in name JONES, Harriet	119-708
7-7832 614P	13 Mar	1130-1630	612 So 39th St. Apt. F; new apt house	app. same as above	NA	door knob & tool (marks, no v prints)	same as above	S.O. & ENCO gas cards in name FOYE, John	119-708
7-7838 634P	9-13 Mar	UNK	1101 S Olono Ave single dwelling	NA	NA	1Pvprint 1* "	taped & broke secluded side bathroom window. ransack entire house	ZENTH port col TV ser 2K51411; WINC. 12 ga. DB shgm; tools	315-115
7-7847 644P	13 Mar	0700-1900	777 43rd St. single dwelling	NA	NA	NA	app. entered by unlocked rear door; took only piggy bank	appr. \$10.00 in coin	097-312
7-7851 656P	13 Mar	1945	5191 Santa Rita single dwelling	LONG, Royce E WM6Aug53:KO#72-255 (in custody)	BSK 699 Whi 62Chev2D-SD (towed)	NA	pry sliding glass patio door; wore gloves; tried stealing camera & ster equip. rifle	NO LOSS all property rec.	188-315
Reported Bus/Com Burglaries									
72-7995 844P	12-13 Mar	1800-083	900 44th St Lincoln High School office	FA	NA	3* print 1* palm	Pried lavatory window ransacked offices; took petty cash box	appr. \$50.00 cash	093-312
73-7989 811P	12-13 Mar	2345	3912 Macdonald Power's TV tele. alarm	FORD, Leroy nm INM9Jul50:KO#72-009 THOMPSON, Clyde Lee NMSFeb53:Arr#73-1566 (In custody)	UGT 032 red 59Merc SW (towed)	gloves & golf club seized	Window smash TV store grab displ TV's and split in vehicle. Arr. by S.O. in county area	NO LOSS / 5 port TV's recovered by S.O. & returned to PR victim	088-311
73-7999 821P	12-13 Mar	1930-0700	788 Cutting Bldg J & O FIRE SERVICE	NA	app. large truck	NA	pry metal siding at joint, exit via large front doors; DID NOT enter bugged office	appr. \$5,000.00 in large truck tires	076-706
Reported Thefts from Locked Vehicles									
3-7819 670P	13 Mar	0900-1100	So 6th & Ohio Linen Delivery Van	NA	NA	2Pvprint 1* print	break driver's side door glass, enter vehicle and remove various linen	appr. 25 sets of sheets and pillow cases in gen paper	055-706
3-7833 699P	13 Mar	0945-1300	4300 Macdonald WARD's parking 69 Chev HT	3 NM juv.s NFD	NA	1Pvprint	slipped HT windows to reach knob; pass. door	5 books Blue Chip stamps	117-311
3-7834 699P	13 Mar	1000-1315	4300 Macdonald WARD's parking 67 Olds 4D-SD	3 NM juv.s NFD	NA	1Pvprint 2* print	pry driver's wing window; prop. in view	MINOLTA 35mm camera & brn leat. case	101-311
3-7850 702P	13 Mar	1230-1630	9th & Navin Ave Macy's parking 66 Ford S-W	N/A	NA	NA	Broke pass. wing window shopping bags lying on rear seat in view	misc. new clothes	008-702
Reported Armed Robberies									
3-7990 593P	13 Mar	1715	12967 San Pablo TACO BELL diner	MM 25 5'6" 165# blk-brn, slick hair, must. goatee; Levi jacket dk pants small auto pistol	pos. blk chev 55-6 w. loud pipe	NA	suspect approached PR & requested taco, when PR returned susp. had gun in hand & demanded all cash from the register	app \$175.00 in bills	116-313
3-8904 633P	13 Mar	2105	7th St. Lucas Red & White Taxi driver	NM 20 5'9" 140# blk brn lar. natur. dark clothing NFD	NA	NA	Cab called to Bill's Pool Hall. Susp. entered cab & directed driver to loc of off. used knife at throat & choke hold	app. \$35.00 in cash wallet containing I.D. & CCs in name of WILLIAMS, Alfred Jr.	031-701
Reported Strong Arm Robberies & Purse Snatches									
3-7835 817P	13 Mar	1630	400 blk 12th St. FW 65 yrs.	MW 16 yr. lg bnd hr. red nylon jack, levis & tennis shs.	NA	NA	approches victim from front and in passing grabs purse striking victim inrgs off face.	app. \$15.00 cash food stamps, I.D. in name WHITE, Wilma	039-703
3-7851 832P	13 Mar	1800	1100 Bissell Av FW 30 yrs.	THOMAS, Rodney Lee Nm1Apr56 #J-7845 Arr. #177-1578	NA	NA m	grabbed victim's purse from behind while victim awaiting bus. Heli. pat spotted suspect hiding in rear yard blk away	NO LOSS all property rec.	047-704
3-7877 678P	13 Mar	2110	416 Chanslor Imperial Hotel MW 46	FW 30 5'5" 118 red hr. (prob. wig) purp pant suit whi belt; MN 6'200 NFD	NA	NA	#1 picked victim up in Bob's Bar & \$25 fun at hotel. #2 grabbed vict in hallway & #1 removed wallet	appr. \$250 cash & wallet cont. I.D. & CCs in name of HALL, William D. merc. marine	066-701

and juveniles, major crimes not usually on the DCR (such as attempted murder of policemen), information on known offenders, and general service information such as patrol advice, etc. The information contained in the DIB is extracted from miscellaneous reports, information received from individual patrol and investigative personnel, other jurisdictions, and administrative or supervisory personnel. The informa-

tion from these various sources is reviewed and condensed by the crime analyst. An example of a DIB is presented as Figure 5-2.

Like the DCR, the information contained in the DIB should be restricted to distribution among law enforcement personnel. The DIB is utilized primarily for criminal apprehension, crime suppression, information coordination, and officer awareness.

FIGURE 5-2
Example of the Daily Information Bulletin

DISTRICT TWO INFORMATION SHEET

FEB. 1, 1973

FOR THE INFORMATION OF COMMISSIONED POLICE OFFICERS ONLY

OFFICERS BE ON THE LOOK-OUT FOR THE BELOW DESCRIBED SUSPECTS IN A RAPE & ASSAULT OF A 16 YR. OLD U.S.W.F. ON 1-31-73 AT THE "DENVER INDIAN CENTER", E. 16TH. & GAYLORD. APPARENTLY SUSPECT #1 KNEW THE VICTIM BY HER FIRST NAME & HAD STOPPED HER ON THE PREVIOUS DAY GETTING OFF OF THE BUS NEAR EAST HIGH SCHOOL & ASKED HER IF SHE WANTED TO GO TO A PARTY. ON THE ABOVE DATE, SUSPECT #1, ALONG WITH THE OTHER SUSPECTS, ASSAULTED THE VICTIM IN THE SAFEWAY PARKING LOT, E. 16TH. & JOSEPHINE & DRAGGED HER TO THE CENTER WHERE THE RAPE OCCURED.

1. "PEE WEE", S/A MALE, 40 YRS. OLD, 5'10" 110 LBS. MEDIUM LENGTH BLACK HAIR, SIDEBURNS TO BOTTOM OF EAR LOBE & HIS RIGHT "EYE TOOTH" WAS MISSING.
2. U.S.W.M. 23 YRS. OLD, 6'5" 210 LBS. SHOULDER LENGTH SANDY BLOND & FUZZY HAIR, SUSPECT IS A HIPPIE TYPE & HAD A 1/2 IN. SCAR ON LEFT CHEEK.
3. U.S.W.M. 19 YRS. OLD, 5'7" 160 LBS. COLLAR LENGTH BROWN HAIR, "KIND OF FUZZY". "FU-MAN-CHU" MUSTACHE & BEARD, DARK BROWN.
4. RACE UNKNOWN, 19 YRS. OLD, 5'5" 120 LBS. COLLAR LENGTH BLACK HAIR & PORK CHOP SIDE BURNS.

NEED C.C. CARDS ON TWO S/A MALES, NO FURTHER DESCRIPTION, IN A DARK BLUE OR BLACK CHEV. STATION WAGON, PARTIAL LICENSE # 4211, PREFIX LETTERS UNK. THESE SUSPECTS POSSIBLY INVOLVED IN A BURGLARY AT 2627 ADAMS RECENTLY.

OFFICERS IN THE VICINITY OF 4300 ONIEDA, THE RED SEAL POTATO CHIP CO. BE ON THE LOOK-OUT FOR THE BELOW DESCRIBED SUSPECT & VEHICLE WHO HAS BEEN STEALING GAS FROM THE CO. LOT & ON THE LAST OCCASION, TRIED TO RUN DOWN SOME EMPLOYEES WHO ATTEMPTED TO DETAIN HIM.

1. N-M, 25-30 YRS. OLD, 6'4" 180 LBS. & WEARING A BLACK FLOPPY HAT. ON THE LATEST INCIDENT, HE WAS DRIVING A FASTBACK BEIGE MUSTANG WITH A BLACK STRIPE, TP# 11315-G & HAS BEEN OBSERVED IN THE PAST DRIVING A 1959 GREEN CHEV, NO FURTHER DESCRIPTION. APPARENTLY THIS HAS BEEN GOING ON FOR A MONTH OR MORE.

OFFICERS IN THE E. COLFAX AREA BE AWARE OF THE BELOW SUSPECT WHO, ACCORDING TO DISTRICT THREE, IS RESPONSIBLE FOR NUMEROUS BURGLARIES IN THE CAPITOL HILL AREA.

1. EUGENE D. ~~XXXXXXXXXX~~, 9-6-51, DPD# 151853 OF 1220 EMERSON #20. PRIORS FOR ROBBERY, BURGLARY, CCW, AWDW, T.F.M.V. & NARCOTICS. ALSO HAS AN EXTENSIVE RECORD FOR VIOLENT CRIMES WHERE WEAPONS WERE USED. USE CAUTION WHEN APPROACHING THIS PARTY.

INFORMATION FROM DISTRICT THREE IS THAT THE BELOW LISTED PARTY IS A SUSPECT IN DAYLIGHT APARTMENT HOUSE BURGLARIES & HAS A PRIOR RECORD FOR BURGLARY & NARCOTICS.

1. EDWARD S. ~~XXXXXXXXXX~~, 7-2-53, DPD# 18860, N-M. OF 1410 PEARL & IS KNOWN TO ASSOCIATE WITH:
 - A. MICHAEL A. ~~XXXXXX~~, 1-13-51, DPD# 188582, U.S.W.M. LONG LIGHT BROWN HAIR WITH A DARK BROWN FULL BEARD & MUSTACHE, HIPPIE TYPE & ADDRESS UNKNOWN.

FURTHER INFORMATION FROM DISTRICT THREE IS THAT THE BELOW LISTED SUSPECTS ARE POSSIBLY ACTIVE IN BURGLARIES DISTRICT THREE, HOWEVER, LIVE IN DISTRICT TWO.

1. STANLEY A. ~~XXXXXXXXXX~~, 8-11-52, DPD# 157462, N-M, OF 3049 KRAMERIA & PRIORS FOR NARCOTICS USE & POSSESSION.
2. ROBERT ~~XXXXXXXXXX~~, 7-1-49, N-M of 2930 LEYDEN.
3. JOSEPH M. ~~XXXXXXXXXX~~ AKA: PEACHES, 9-1-54, DPD# 180174, OF 3015 MONROE. USUALLY CARRIES A GUN & HAS PRIORS FOR ROBBERY & BURGLARY. ALSO IS A FEMALE IMPERSONATOR. SUSPECT #2, PROBABLY IS HIS BOYFRIEND.

The DIB, unlike the DCR, has limited temporal validity. The information on the DIB should be repeated for a few days, then deleted. The DIB is not as suited to retention for record reference as the DCR; thus, the DIB may be disposed of by the recipient officers.

In many departments the DIB is produced by the records and service division. As is the case with the DCR, a clerk is often assigned this responsibility. The crime analysis section should assume this function to increase information correlation and coordination.

Again, the problems with the DIB are the same as those encountered with the DCR. The possible solutions to these problems are similar to those offered for the DCR.

3. *Known Offender Identifiers or Suspect MO Bulletins.* The Known Offender Identifier (KOI) contains information on known or suspected criminal offenders with: a photo of the subject, crime specialty, aliases, past arrests, addresses, criminal associates, vehicles, requests for field contact information, etc. The information contained in the KOI is received from individual officers, arrest reports, offense reports, supplemental reports, field contacts, etc. Several examples of KOI's are Figures 5-3, 5-4 and 5-5.

The KOI is used primarily for: criminal apprehension by offender identification, information coordination on the identified offenders, and criminal suppression. The value of DCR and DIB can be augmented by the KOI. Suspected or identified offenders can be referred to in the DCR and DIB by KOI reference number or date.

Like the DCR, the KOI has excellent temporal validity. The KOI bulletins should be retained and kept in binders or notebooks. One department publishes its KOI in notebook size with an individual subject on each page; this facilitates filing either alphabetically or by physical characteristics, and provides space for the individual officer to update the information on a particular subject.

Other departments publish KOI's according to crime type or specialty, or by physical characteristics. The examples presented can be considered as representative of the three types.

In many departments, KOI's are either published by the criminal investigation division (or individual investigative units) or the intelligence section. This function should be performed by the crime analysis section

because criminal investigation may be subject to pressures causing this important function to be neglected. The crime analysis section is *better* prepared to correlate information on specific criminals and reported crimes.

Different departments utilize KOI's for various purposes. The use of KOI's can vary from an aid to apprehension of criminals to community relations. Most law enforcement agencies utilize KOI's solely for official purposes. Many departments do not allow individual field officers to use a KOI for in-field photo line up identifications.

The Denver Police Department is an exception to the above restriction. Field officers, during the preliminary investigation of robberies, may display photos in the KOI based on supportive information received from the victim or reporting person. Officers are instructed to place the photo of the principal subject in a group photo before displaying the photo to a witness. Should an identification be effected, it is not, in most cases, authority for arrest; but the same group of photos is then taken to the robbery investigators as potential evidence. The investigator should conduct the case from that point.

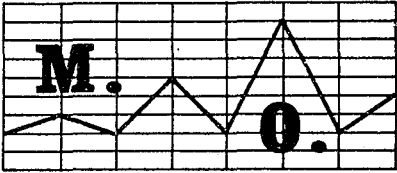
The Oakland Police Department utilizes KOI's for what can be considered public relations purposes. A KOI containing photos and names of habitual shoplifters is distributed to the security sections of department stores and area merchants. The recipients are admonished regarding the limitations of the KOI, but are encouraged to let the known offender encountered know that he is identified as a known shoplifter in an effort to persuade him to leave. The results of usage of the KOI in this manner can gain merchants' support for the police agency.

The KOI can be either published weekly, monthly, or on an as-needed basis. One department has adopted a method in which a set number of individual KOI's are published weekly. The Tucson Police Department publishes 10 per week and individual officers are encouraged to personally maintain a field file of 150 of the most active known offenders.

The problems encountered in using KOI's can largely be eliminated by training personnel in their use. Officers can be admonished regarding the restrictions required within the regional interpretation of existing laws. If officers are instructed that this valuable

FIGURE 5-3
Example of the Known Offender Identifier

O A K L A N D P O L I C E D E P A R T M E N T

Special  *Bulletin*

C. R. GAIN..... CHIEF OF POLICE

PUBLISHED BY CRIME ANALYSIS UNIT ***** 455 7TH STREET ***** TELEPHONE 273-3741

October 1970

DOWNTOWN OAKLAND STORE BOOSTING OPERATION

The persons listed on this bulletin constitute a loosely knit group of shoplifters operating in the greater downtown Oakland area. Although they are not members of any formal gang, these individuals, for the most part, know each other and often work together. All have numerous arrests for shoplifting.

These persons spend many hours in the downtown area looking for the opportunity to steal. They favor ladies' dress shops or the bigger department stores which have a large selection of clothing. They have a good knowledge of clothing, taking women's knit suits and dresses as well as men's suits and sport clothes.

The shoplifters usually will enter a store in a group of two to four persons, then separate, making it difficult for store detectives to observe them. Most are "grab and run" thieves who, when they can, merely grab an armful of clothing and flee out the nearest door. Other members of the group simply wander about until they feel they are unobserved, then quickly secrete merchandise on their person and walk from the store. These thieves will vary their method of operation somewhat by merely picking up an object of merchandise and walking unobtrusively from the store with the item in plain view.

The best methods of protection against this operation are as follows:

1. Know the thieves and be able to recognize them when they enter.
2. Immediately assemble enough personnel to effectively watch the suspects.
3. Have someone call the police and request that an officer be assigned to assist.
4. Make your observations obvious, even to the suspects; this may cause them to leave the premises.
5. If possible, let them know you are well aware who they are. Calling them by name is very effective.

Restricted to the Use of Law Enforcement Officers

tool can be lost through misuse, they will be more likely to respect its confidentiality.

Again, problems of increasing numbers of known identifiers may cause large depart-

ments to distribute known offender information on a precinct or district level.

4. *Weekly Crime Summary*. The weekly crime summary issued by the crime analysis section

FIGURE 5-3
Example of the Known Offender Identifier (con't.)



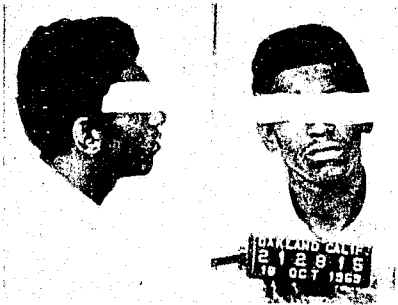
ER, Douglas D.
 MN 30 Jun 45
 6'2" 160 Brn blk brn
 CII: 2391335



ER, Rufus C.
 MN 23 Sep 38
 6'1 1/2" 165 brn blk blk
 CII: 1208306
 AKA: Charles WILSON
 "DE WITT"



KS, Roland H.
 MN 22 Oct 48
 5'6" 150 brn blk Dk
 CII: 2813863



ER, Joseph L.
 MN 10 Oct 51
 6'3" 172 brn blk Dk
 CII: 3911525



ER, William C.
 MN 14 May 50
 5'8" 152 brn blk Choc
 CII: 3611190



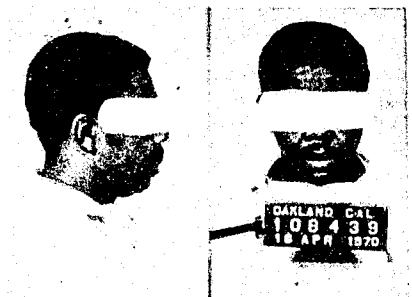
JAN, Lee N.
 MN 4 Jul 45
 5'11" 195 brn blk dk brn
 CII: 2906701
 AKA: Lee Morris CHAPMAN



ER, Melvin
 MN 7 Jan 49
 5'10" 135 brn blk brn
 CII: 3240902
 AKA: "Boo Barker"



KS, Donald M.
 MN 3 Jun 47
 5'8" 130 brn blk brn
 CII: 3271390
 AKA: Donald MILLER
 John Miller BROOKS



WICK, Ulysses
 MN 9 Mar 36
 5'10" 175 brn blk brn
 CII: 1033924
 AKA: Ulysis DOMINICK
 Ulyses DOMMINCK
 Ulysses BARKER
 Ulysses DOMINK

1

2

3

represents the publication of analyzed information for a one week period. It contains information on increases or decreases in crime rate when compared to the previous week or the same week of the previous year, in the form of graphs, statistical breakdowns, general crime trends and problem areas, and other crime information. Two examples of weekly crime summaries are presented as Figures 5-6 and 5-7.

Unlike the DCR and confidential information, the weekly crime summary does not contain any information of specific crimes. It may contain beat and shift breakdowns of various crimes in conjunction with map representations, but this information is intended for executive and supervisors use. The strategy formulation of patrol, tactical, and investigative supervisors should be a result of this crime analysis information.

FIGURE 5-4
Example of a Known Offender Identifier

DENVER POLICE DEPARTMENT, DENVER, COLORADO



SPECIAL BULLETIN

VOL. #5

September 1, 1972

STICKUP BULLETIN

NOTICE: DO NOT LEAVE THESE BULLETINS LAYING IN THE POLICE CRUISERS, VISIBLE TO THE PUBLIC: THEY HAVE BEEN FOUND IN THE POSSESSION:

This bulletin has been compiled by the Denver Police Department's Armed Robbery Detail, with the assistance of the Denver Uniform Officers, the Detective Bureau, Intelligence Bureau, and the surrounding counties and cities. We appreciate everyone's help in making this bulletin possible. We feel that it will be a great assistance to the uniform officers on the street. All of the people in this bulletin are talking about robberies, have been convicted of robberies, paroled for robberies, discharged, on bond for robberies or wanted for robberies. These same people are also burglars, narcotic users and pushers.

USE EXTREME CAUTION AT ALL TIMES. When stopping or contacting these people, handle them as if they DO have a gun in their possession. This year alone, several officers were shot at by stickups and most of these parties would not hesitate in shooting you to get away.

When you receive information or make contact on these parties, obtain all information possible as to addresses, nicknames, girl friends, who is with them, car description, employment (if any) or any other pertinent information. Forward to Lieutenant C. D. Brannan or Detective R. L. Rennick, Robbery Detail, or Detective D. Lawless, Robbery Detail.

If you cover a stickup and have a specific suspect in mind, make sure that you place his picture with at least five other pictures to show the victim or witness. DO NOT show only the suspect's picture. If an identification is made, then staple the group of pictures together, and hand carry to the Robbery Detail. We have to have the identical group that was shown to the victim for Court, or if picked from this bulletin, make sure we are aware of it, so that information can be given to the D.A.'s office.

On parties picked up with a gun, jail them for Investigation of C.C.W., make out another completed arrest form, with a court date, BUT leaving 'served' blank. Forward Advisement form, completed arrest form, and details of arrest in a letter immediately to the Robbery Detail. We will check them against stickups and check their record to see if they are in violation of the "Felony Gun Law".

A Stickup Team, X-59, will be working from 7:00 P.M. to 3:00 A.M. Call us if we can assist in any way. You may not realize the importance of your contacts of these parties on the street but many cases have been solved by your efforts, and contact cards. Keep the information coming. If you know any of these parties and have good addresses and cars, forward the information to us.

BE ALERT, CAUTIOUS AND STAY ALIVE:

Uses of the information contained in the weekly crime summary include administrative review, crime suppression through line manpower deployment, and supervisory strategy evaluation. By receiving this information, field supervisors can make timely

changes in deployment priorities and techniques.

The weekly crime summary can be used as the basic source information in a weekly formal staff strategy review meeting with attendance limited to midlevel supervisors

FIGURE 5-4
Example of a Known Offender Identifier (con't.)

-1-
U. S. WHITES



MT, Stephen aka "Poet",
 DPD 179404, USW, 5'11", 155,
 Brown eyes, brown hair. Last
 address 3701 So. Santa Fe.
 Assoc. Harold Whatley. 7-11
 Stores & other small grocery
 stores. DOB 10-5-47.



LD, Daryl, Jr., DPD 180649,
 DOB 7-1-53, USW, 5'5", 120, brown
 eyes & hair. 885 So. Decatur. 7-11
 stores.



MS, Robert R., DPD 40452,
 DOB 4-1-38, USW, 5'11", 150,
 2615 W. Argyle, '61 Chev. 4-dr.
 S/W white; Assoc. Gilbert Lopez,
 Bennie Lopez, Armondo Aguirre,
 paroled 11-26-71.



AN, Michael aka Assman, DPD
 138881, DOB 9-26-50, USW, 5'8",
 130, blue eyes, blonde hair, last
 known address 1562 W. Alameda.
 Paroled 9-1-72.



EN, George F., DPD 175106,
 DOB 7-4-38, USW, 5'7", 135,
 blue eyes, brown hair.



IN, Timothy M., DPD 121808,
 DOB 10-4-48, USW, 6'1", 160, Gray
 eyes, brown hair. Paroled 10-22-71.



IO, Mike, DPD 170986, DOB
 8-14-51, USW, 5'10", 170, Brown
 eyes, blonde hair, 2501 W. 17th
 Ave., Paroled 7-31-72.



ES, Larry T., DPD 156290, DOB
 8-11-52, USW, 5'9", 155, brown
 eyes, red/brown hair, 190 So. Dale
 Ct. Assoc. Daniel Martinez, Solo-
 mon Martinez.



OR, Michael R., DPD 166096,
 DOB 11-15-45, USW, 6'1", 185,
 brown eyes, brown hair.
 Paroled 3-1-72.



OK, Gabor George, DPD 178421,
 DOB 10-26-54, USW, 6', 145, brown
 eyes & hair. Paroled 6-10-71.

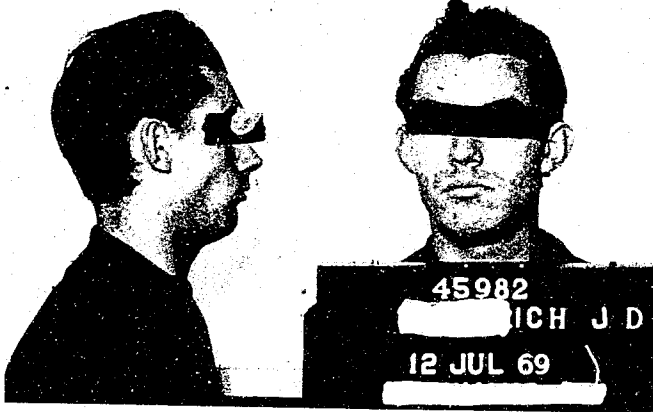


ON, Byron K. aka 'Biff',
 DPD 93288, DOB 1-23-44, USW,
 6'4", 225, blue eyes, brown hair
 1112 Broadway (hotel). Super-
 markets, is a narcotic user.



AN, Terry W., DPD 107631, DOB
 6-2-44, USW, 5'9", 151, blue eyes,
 Medium brown hair. Paroled 3-1-72.

FIGURE 5-5
Example of a Known Offender Identifier



SUBJECT: _____, John David 19May49
 DESCRIPTION : 5'7" 145 lb.s Brn hr. blu eyes
 K. O. No. : 72-455
 1110 Liberty St. (15Aug72)
 1647 Elm Ave. (20May72) (brother's)
 ASSOCIATES: 232 19th St. (29Nov71) (mother's)
 BILLTICH, Ronald E K.O.#72-299
 BAKER, Patrick B K.O. #72-312
 HAMILTON, John L K.O. #71-667
 MAY, David J K.O. #72-456
 MAY, Joyce E WF 6Sep53 (girl-friend)
 PAST ARRESTS:
 Burglary & Narcotics (June 72); CCW(Mar72)
 RSP(Apr71) ON PROBATION with search clause
 M. O.:
 Heroin addict, will steal anything to support habit. Prefers to burglarize friends and relatives houses but will work with others on unknown residences. Uses pawn shops to dispose of property.
 VEHICLES:
 1959 Cad 2D-HT lt Blu IPQ 763
 1963 VW Bus red & blu NJ1190 (brother's)
 1962 Chev 2D-SD Whi UHR 694(BAKER's)

ADD ADDRESSES: _____

ADD ASSOCIATES: _____

ADD VEHICLES: _____

NOTES: _____

FIGURE 5-6
Partial Example of a Narrative Weekly Crime Summary

CRIME PREVENTION INFORMATION BULLETIN

CRIME ANALYSIS UNIT
OAKLAND POLICE DEPARTMENT

CRIME: *** COMMERCIAL BURGLARY 459 P.C.	WEEK OF: 15-21 Feb 71
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Of the 97 commercial burglaries reported this week, all were analyzed, wholly or in part, for the following information.

- TIME:** Forty-four occurred between 1600 and 2000 hours, and 20 took place between 0000 and 0400. Five were of unknown time, and the remaining 28 showed no time significance.
- DAY:** Monday reported 16 offenses. Friday reported 9 offenses.
Tuesday reported 10 offenses. Saturday reported 17 offenses.
Wednesday reported 15 offenses. Sunday reported 17 offenses.
Thursday reported 13 offenses.
- AREA:** District I reported 25 offenses (Beat 3).
District II reported 22 offenses (Beats 5 and 7).
District III reported 17 offenses (Beats 15 and 17).
District IV reported 10 offenses (Beat 21).
District V reported 23 offenses (Beats 27 and 28).
- ENTRY:** Of the 97 entries, 88 were by force and 9 were open. Forty-nine were through front doors, 22 through windows, 21 through rear doors, and 4 through walls.
- LOSS:** Identifiable losses were as follows: office equipment was taken in 11 offenses, tools in 7, money in 14, clothing in 4, TV's in 6, stereos in 1, guns in 3; and the remaining losses were miscellaneous items.
- SUSPECTS:** Of the 34 suspects listed, all were male; 30 were Negro, 3 were Caucasian and 1 was Latin. Ages of the suspects were listed as follows: under 13, 1; 13-15, 2; 16-18, 10; 19-21, 3; 22-25, 6; 26-30, 4; older, 1; and unknown, 7.
- VICTIMS:** The types of businesses broken into varied. Offices reported 17 incidents; schools, 14; warehouses, 9; public buildings, 10; other stores, 12; cafes, 7; gas stations, 5; motels, 2; construction shacks, 1; boxcars, 1; cleaners, 1; automotive stores, 7; churches, 2; liquor stores, 1; and bars, 3.

ANALYSIS:

Particular attention could be given to commercial establishments on Beats 3, 6, 15, 17, 27 and 28, concentrating on these areas from early afternoon to early morning. Male Negroes, from 13 to 40 years, are the suspects most often seen. Schools should be given particular attention on the weekends.

*** DESIGNATED AS THE CRIME PROBLEM OF THE WEEK.

representing the patrol, tactical, investigative, and special services (vice and narcotics) units. A good time for this meeting is on Monday or Tuesday morning; the meeting can last from one to three hours depending on the information to be disseminated and

the complexity of the information being discussed. This type of meeting allows the exchange of information between the various field unit representatives. Also, the analysis personnel can obtain informal feedback evaluation information as to their

FIGURE 5-6
Partial Example of a Narrative Weekly Crime Summary (con't.)

RESIDENTIAL BURGLARY 459 P.C.

15-21 Feb 71

The 196 Residential Burglaries reported this week contributed, wholly or in part, to the following analyzation.

- TIME:** Of the 196 reports indicating a time of occurrence, the time span of 0600 to 2000 hours totaled 160 offenses, and 2000 to 2400 totaled 19. The remaining 17 offenses did not reflect a time significance.
- DAY:** Monday reported 22 offenses. Friday reported 36 offenses.
Tuesday reported 31 offenses. Saturday reported 24 offenses.
Wednesday reported 28 offenses. Sunday reported 23 offenses.
Thursday reported 32 offenses.
- AREA:** District I reported 20 offenses (Beats 1 and 4).
District II reported 45 offenses (Beats 6, 8 and 10).
District III reported 47 offenses (Beats 14 and 17).
District IV reported 43 offenses (Beats 19, 20, 22 and 23).
District V reported 41 offenses (Beats 25, 26, 27 and 28).
- LOSS:** Various types of losses were reported, but identifiable losses were as follows: televisions, 66; radios, 30; stereos, 37; jewelry, 27; clothing, 20; guns, 13; money, 33; cameras, 11; tools, 5; and office equipment, 3.
- ENTRY:** Force was used as the method of entry in 144 offenses while open doors and windows accounted for 52. Entry was directed at front doors in 60, at windows in 81, and at rear doors in 55.
- SUSPECTS:** Sixty-two suspects were seen. Of these, 59 were male. Forty-eight were Negro, 8 were Caucasian, and 6 were Latin. Ages were reported as follows: under 12, 1; 13-15, 6; 16-18, 17; 19-21, 14; 22-25, 14; 26-30, 2; 31-40, 2; older, 1; and 5 were unknown.

ANALYSIS:

Marked and unmarked patrol units in residential areas, with particular emphasis on Beats 1, 4, 14, 17, 20, 22, 23, 25 and 26 may be effective. Male Negroes, between the ages of 16 and 40 years, loitering or driving slowly in these areas during daylight and early morning hours, are possible suspects. Thirteen-to-17-year-olds should be watched going and coming from school.

methods and effectiveness. Many of the surveyed departments with operating crime analysis systems use the formal meeting method of disseminating the weekly crime summary. All interviewed personnel thought highly of the informational exchange that resulted from the meeting.

5. *Weekly Public Newsletter.* The weekly public newsletter contains neighborhood information on crime and related neighborhood problems. The content of the weekly public newsletter may be raw numerical data on criminal activity within geographical areas (not necessarily defined by patrol boundaries). An example of a weekly public newslet-

ter published by the Oakland Police Department is presented as Figure 5-8.

The weekly public newsletter effects community relations and crime prevention through citizen awareness and involvement. Many departments should use the community relations or preventive services sections to publish information received from the crime analysis section.

The problems with publishing a weekly public newsletter are cost and informational content. The cost of publishing the newsletter must be weighed against the increased public support and citizen involvement that should result. However, if the information

FIGURE 5-6
Partial Example of a Narrative Weekly Crime Summary (con't.)

COMMERCIAL ROBBERY 211 P.C.

15-21 Feb 71

From the 22 commercial robberies occurring during the last week, the following information is available.

TIME: Seven offenses occurred between 1800 and 2200 hours.

DAY: Monday reported 1 offense. Friday reported 4 offenses.
Tuesday reported 3 offenses. Saturday reported 6 offenses.
Wednesday reported 1 offense. Sunday reported 4 offenses.
Thursday reported 3 offenses.

AREA: The offenses were spread throughout the City, however, District II was the highest with 8 offenses.

LOSS: Money was the object of attack in 18 offenses and jewelry in 1.

WEAPON: Guns were displayed in 15 offenses and simulated in 3; knives were used in 2 offenses, and physical force in 1.

SUSPECTS: Of the 39 suspects described, all were male; 37 were Negro and 2 were Caucasian. Ages of the suspects ranged as follows: 13-15, 1; 16-18, 7; 19-21, 13; 22-25, 13; 26-30, 3; and 2 were unknown.

VICTIMS: The types of businesses robbed were as follows: grocery stores were hit on 1 occasion; gas stations, 2; cafes, 6; taxis, 5. Bars, theaters, catering truck, toy store, barbershop, laundry, office and a dairy all reported 1 offense.

ANALYSIS:

Early and late afternoon and evening hours were hardest hit. An attempt should be made to increase preventive patrol during these hours.

content is too specific, the criminal responsible may read the newsletter and determine that the police agency has taken notice of his activities. This may result in the criminal changing his MO. This situation would reduce the effectiveness of the crime analysis.

The departments operating with little citizen involvement should consider the weekly public newsletter a means of soliciting such increased involvement in combating the criminal element.

6. *Monthly Analysis Section Report.* The monthly crime analysis section report contains information for administrative review and evaluation of section activity and effectiveness. This information may take the form of general activity, such as the number

of reports or meetings generated, or it may be specific, i.e., problems identified and solved or specific feedback information received. A model monthly analysis section report is presented as Figure 5-9.

The monthly report to the administrative head may also take the form of a report on general criminal activity and crime rates, with identification of rate changes over previous periods or comparison to the same month for the year before.

7. *Crime Patterns Identification Bulletins (CPI).* The crime pattern identification bulletin is one of the most important dissemination techniques utilized by the crime analysis section. Indeed, the CPI and investigative lead report may be considered as most

FIGURE 5-6
Partial Example of a Narrative Weekly Crime Summary (con't.)

ROBBERY FROM THE PERSON
Strongarm Robbery - Pursesnatch

15-21 Feb 71

Of the 47 robberies from the person this week, all were analyzed for the following information.

TIME: The time span of 1400 to 2000 accounted for 22 offenses; 10 occurred between 2000 and 0200. The remaining 15 offenses did not reflect a time significance.

DAY: Monday reported 9 offenses. Friday reported 3 offenses.
Tuesday reported 10 offenses. Saturday reported 5 offenses.
Wednesday reported 7 offenses. Sunday reported 5 offenses.
Thursday reported 8 offenses.

AREA: The west, north and near east end areas were the most affected areas. Beats 1, 5, 14, 17, 24, 25 and 26 had from 3 to 5 offenses each.

LOSS: Money was the primary object of attack, but no loss was reported in 2 offenses.

WEAPON: Force was the main instrument of attack reported in 27 offenses. Guns were observed in 6, knives in 4, and simulated in 1.

SUSPECTS: Of the 76 suspects listed, 72 were male; 69 were Negro, 4 were Caucasian, and 3 were Latin. The ages given for suspects were as follows: under 12, 4; 13-15, 3; 16-18, 14; 19-21, 13; 22-25, 8; 26-30, 5; 31-40, 2; older than 40, 2; and 25 ages were unknown.

ANALYSIS:

Most offenses occurred during early and late evening hours and early morning hours. Suspects were usually male Negroes, in pairs, aged 13 to 25. Attention should be given to elderly and middle-aged Caucasians, walking alone, who are consistently the prime victims in this type of offense. Approximately one-third of these offenses occurred on main thoroughfares.

exemplary of the crime analysis mission. The content of the CPI is based on the analysis of reported crimes and should so indicate by reference to specific crimes, locations, times, and suspects; it can be comprehensive, providing either directive or suggested patrol strategies, or it may only identify the problem pattern and leave the solution to the recipients. Three types of crime pattern identification bulletins are presented in Figures 5-10, 5-11, and 5-12.

The crime pattern identification bulletin is used primarily for criminal apprehension of the offenders described in the pattern, crime suppression by identifying the problem pat-

tern, or specific manpower deployment by field line supervisors. The recipients of CPI's can include: all field personnel, patrol and tactical supervisors, and investigative personnel.

Many departments with crime analysis sections merely communicate the identified crime pattern to those personnel requiring knowledge and make no attempt at obtaining feedback information or directing recipient utilization. A step above these are the crime analysis sections that direct any arrest or field contact information be relayed to the crime analysis section and/or the investigative unit involved. More involvement is

FIGURE 5-7
Example of a Numerical Weekly Crime Summary With Comparison to Previous Activity

AVOID VERBAL MESSAGES

C I T Y O F T U C S O N

To: Chief of Police
 Subject: Comple Summary

From: Planning and Research
 Date: Feb 12 to Feb 18, 1973

	A1	A2	A3	A4	A5	A6	D1	D2	D3	D4	D5	D6	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	TW	LW
ROBBERY		1	1		1		1	1	1			2	1	2	1			1								13	10
BURGLARY BUSINESS		2	5	1	3	1	2			1				1	1					1		1				19	29
BURGLARY RESIDENCE	1	1	1		1		4	3	7	1		1	1	1	1	7	1	7	3	1	8	4	5	1	1	61	70
LARCENY FROM AUTO	2	1	5	1	2	5	1	1			1		6	1		3		3		2	4	2	3	1		44	42
STOLEN VEHICLES	1	2	2		1		2	1	1			1	2			1	1		2	1	1	2	1		1	23	31
TOTAL	4	7	14	2	8	6	10	6	9	2	1	4	10	5	3	11	2	11	5	5	13	9	9	2	2	160	
LAST WEEK	9	4	9	10	18	6	9	4	8	4	5	2	3	9	9	5	5	9	10	6	6	9	9	6	8		182
DIFFERENCE	-5	+3	+5	-8	-10		+1	+2	+1	-2	-4	+2	+7	-4	-6	+6	-3	+2	-5	-1	+7				-4	-6	-22
RECOVERED VEHICLES	1	2	1						1	2														1		8	
LAST WEEK	2						1	1								1											5
DIFFERENCE	-1	+2	+1				-1	-1	+1	+2						-1									+1		+3

Home Alert News

OAKLAND CITIZENS' CRIME PREVENTION COMMITTEE...IN COOPERATION WITH OAKLAND POLICE DEPARTMENT
PHONE: 273-3069

455-7TH STREET, ROOM B-49
OAKLAND, CALIFORNIA 94607

June 1972

CRIME-SPECIFIC

Oakland and five other jurisdictions in California have received funding from the California Council on Criminal Justice to engage in a concerted effort to reduce residential and commercial burglaries. In Oakland, the resources obtained under the grant will be used in a drive to curb burglaries in that portion of East Oakland which includes the Far East Home Alert Area, the East Hill Home Alert Area and the South East Oakland Home Alert Area. These areas were selected for special attention because they have suffered the most persistent burglary problem.

Grant funds will enable the Police Department to assign additional personnel and equipment to East Oakland for specific burglary prevention and enforcement purposes. In addition, the funds have made it possible to employ two investigative aides in the Department's Burglary Section to assist investigators with routine tasks so they may expend more time in investigative duties. Particularly important, the grant funds have made it possible for the Department to employ and train ten East Oakland residents who will perform residential security inspections upon request. Persons who reside in the Far East, East Hill and South East Oakland Home Alert Areas are invited to telephone the Home Alert office at 273-3068 to arrange for a residential security inspection. Remember, the citizen-inspectors have been trained to detect security weaknesses and to make recommendations to improve the security of your home or apartment, but they will conduct the inspections only upon request.

The Crime-Specific Burglary Prevention and Control Program has been funded for a period of one year. The program will receive extensive evaluation and, hopefully, the most effective and efficient methods of preventing the crime of burglary can be identified and applied throughout the entire City.

LITTERING

With some frequency, citizens have asked for information concerning the action they should take when they observe littering violations. California Penal Code section 374b makes it unlawful to litter or to dump any waste matter on any public or private road or upon any public or private property without the consent of the owner or person in charge of the property. Because violation of section 374b is a misdemeanor, an officer may not arrest or cite a violator unless he observes the violation. When he does not witness the violation, the officer will be limited to taking a report which will be the basis for follow-up investigation and, when possible, prosecution.

When you observe a person dumping garbage, you should obtain as complete a description of the violator as possible and, of particular importance, you should obtain an accurate description, including the license number, of the vehicle used by the person. Telephone the Police Department's Communications Section at 273-3481 and inform the complaint operator concerning the nature and location of the violation and the description of the offender. An appropriate crime report will be taken via telephone or, depending upon the circumstances, an officer will be dispatched to the scene.

FIGURE 5-8
Example of the Weekly Public Newsletter (con't.)

June 1972

CRIME IN THE MID-EAST OAKLAND AREA

The Mid-East Oakland Home Alert Area includes the Fruitvale District, the Allendale District, the Maxwell Park District, the Fairfax District and the Havenscourt-Seminary District.

Residents of the Mid-East Oakland Area reported 110 burglaries during May, a 3% increase over April's figure. The reports were scattered throughout the Area with no concentrations developing in any particular neighborhood. Because of long summer days, the break-ins are being committed later in the evenings. Two reports were received of a burglar working after midnight and the apprehension of a nighttime burglar on 36th Avenue may have resolved this problem. Increased activity during daylight hours can be expected with school vacation.

Robberies from the person decreased again this month with 26 incidents of strongarm robbery and pursesnatch reported. Most of these thefts were of the strongarm type and occurred during the late afternoon on Foothill Boulevard from 45th Avenue to 55th Avenue and on East 14th Street from Seminary Avenue to 73rd Avenue.

Automobile thefts increased slightly over last month with 48 vehicles reported stolen during May. The majority of these thefts were scattered throughout the Area with no established pattern. Older model Chevrolets are the favorite target of auto thieves in this Area.

Thefts of property from parked vehicles totaled 49 offenses during May. Many of these offenses involved entries into locked vehicles parked in the neighborhood of MacArthur Boulevard and Mills College.

Residential burglaries in the Fruitvale District decreased slightly during May with 26 break-ins reported. Small concentrations occurred in the neighborhood bounded by 35th to 39th Avenues, East 14th Street to Foothill Boulevard and in the vicinity of 35th Avenue and Davis Street. In one burglary on Bridge Avenue, the resident's unexpected arrival surprised the intruder who fled out the rear door only to be confronted by the waiting jaws of the homeowner's two large dogs.

Residents of the Allendale District reported 15 homes broken into last month. Except for three break-ins committed in the 3800-3900 block of Lyon Avenue, the majority of offenses were scattered throughout the District and no established pattern has developed. Several car thieves were apprehended during May and they have implicated other persons. It is believed the arrests may help to relieve the current rash of stolen vehicles in the District.

Fifteen homes and apartments were reported burglarized in the Fairfax District during May, a 40% decrease compared to April's figures. The bulk of these entries were concentrated in the neighborhood bounded by 47th to 52nd Avenues, Bancroft Avenue to Melrose Avenue. Four persons were apprehended during the commission of four separate offenses in the District. We are grateful to alert neighbors who called the police when they observed suspicious activity and persons prowling about the neighborhood in a suspicious manner.

The Maxwell Park District again experienced the lowest incidence of crime. Eight residential burglaries were reported, many of which were concentrated in the area of Brookdale Avenue to Fleming Street, Lilac Street to Modesto Avenue. One young man was captured while breaking into a home on Maxwell Avenue although his two accomplices managed to escape. In another case on Brookdale Avenue, a young man was apprehended for attempted burglary when officers in an unmarked patrol car observed him attempting to force a padlock on a locked garage door.

Residential burglaries in the Havenscourt-Seminary District almost doubled during May with 46 reported offenses as compared to 26 in April. These offenses were scattered throughout the District except for minor concentrations in the neighborhoods bounded by 67th to 76th Avenues, East 14th to Orral Streets and in the vicinity of Seminary Avenue and East 14th Street. Vehicles seen fleeing these break-ins are a 1964 brown Pontiac sedan, a dark blue old model Chevrolet, a blue 1955 Chevrolet with a noticeably loud muffler, and a dark colored 1965 Thunderbird. Several youths, responsible for a series of pursesnatches in the vicinity of Bancroft Avenue, were apprehended.

FIGURE 5-9
Example of the Monthly Analysis Report

Seventh Precinct

September 11, 1972

TO: District Inspector-Eastern District

SEVENTH PRECINCT PROBLEM IDENTIFICATION REPORT
August 1972

Analysis of data from Precinct Sources discloses the following crime problem areas

ROBBERY:

There were 202 robberies and attempt robberies reported in the precinct during the month of August.

Problem Areas:

- | | |
|-----------|--|
| Scout 7-9 | 32 robberies mostly on platoon #3, concentrated in an area bounded by Dequindre to Chene, Gratiot to E. Forest. |
| Scout 7-1 | 28 robberies mostly on platoon #3, concentrated in an area bounded by Concord to VanDyke, E. Jefferson to St. Paul. |
| Scout 7-2 | 28 robberies mostly on platoon #2 and #3, concentrated in an area bounded by Mack, Bellevue to Field and Charlevoix and Mt. Elliott. |
| Scout 7-6 | 27 robberies, evenly distributed on all three platoons, concentrated on Leland, Chene to Gratiot. |
| Scout 7-7 | 21 robberies mostly on platoon #3, concentrated in an area bounded by Hendricks to Preston and McDougall to Mt. Elliott. |

Proposed Remedy:

Seventh Precinct Supervisors and Patrol Personnel have been apprised of this problem and have been instructed to give attention to business establishments in their areas. Increased patrols by STRESS Units should also prove to be effective.

B&E DWELLINGS:

There were 229 B&E and attempt B&E Dwellings reported in the Precinct during the month of August.

Problem Areas:

- | | |
|-----------|---|
| Scout 7-2 | 46 B&E Dwellings evenly distributed on all three platoons, concentrated in an area bounded by East Grand Boulevard to VanDyke and E. Forest to Mt. Elliott. |
| Scout 7-6 | 33 B&E Dwellings evenly distributed on all three platoons, concentrated in an area bounded by Leland to Warren and Chene to Mt. Elliott. |

(cont)

FIGURE 5-9
Example of the Monthly Analysis Report (con't.)

TO: District Inspector-Eastern District

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- | | |
|-----------|---|
| Scout 7-5 | 28 B&E Dwellings evenly distributed on all three platoons, concentrated in an area bounded by Warren to Ferry and Chene to St. Aubin. |
| Scout 7-1 | 27 B&E Dwellings mostly on platoon #1 and #3, concentrated in an area bounded by East Grant Boulevard to Seyburn and LaFayette to St. Paul. |
| Scout 7-3 | 24 B&E Dwellings evenly distributed on all three platoons, concentrated in an area bounded by East Grand Boulevard, Forest to VanDyke and Congress to St. Paul. |

Proposed Remedy:

Seventh Precinct Patrol Personnel and Supervisors have been instructed to continue giving residential areas as much special attention as possible. The use of un-marked patrol cars would also be advisable in regard to this category of crime.

B&E BUSINESS PLACES:

There were 98 B&E and attempt B&E Business Place reported in the precinct during the month of August.

Problem Areas:

- | | |
|------------|---|
| Scout 7-6 | 18 B&E Business Place mostly on platoon #1, concentrated in an area bounded by Chene to McDougall and Garfield to Warren. |
| Scout 7-9 | 11 B&E Business Place evenly distributed on all three platoons, concentrated in an area bounded by Chene to Dequindre and Garfield to Warren. |
| Scout 7-10 | 11 B&E Business Place mostly on platoon #3, concentrated in the area of Milwaukee, St. Aubin to Chene. |
| Scout 7-1 | 11 B&E Business Place evenly distributed on all three platoons with no particular concentration. |
| Scout 7-3 | 10 B&E Business Place mostly on platoon #1, concentrated in an area bounded by Gratiot, Mt. Elliott to Helen. |

Proposed Remedy:

Seventh Precinct Personnel and Supervisors have been informed of the situation in regard to crime in their respective areas. Increased foot patrols on the main arteries would also be advisable.

B&E AUTOS:

There were 97 B&E and Larceny from Auto reported in the precinct during the month of August.

Problem Areas:

- | | |
|-----------|---|
| Scout 7-9 | 7 B&E Auto evenly distributed on all three platoons, concentrated in an area bounded by Gratiot to Erskin, and Russell to Dequindre. |
| Scout 7-9 | 7 B&E Auto evenly distributed on all three platoons, concentrated in an area bounded by Rivard to Orleans and E. Jefferson to Larned. |

FIGURE 5-9
Example of the Monthly Analysis Report (con't.)

TO: District Inspector-Eastern District

-3-

Proposed Remedy:

Seventh Precinct Patrol Personnel and the C.O.P. Unit have been apprised of the situation regarding this category of crime and have been instructed to give special attention to areas where vehicles are left unattended.

LARCENY FROM PERSON:

There were 38 Larceny from Persons reported in the precinct during the month of August.

Problem Areas:

The 38 Larceny from Persons reported in the Precinct were evenly distributed with no particular concentration.

Proposed Remedy:

Seventh Precinct Patrol Personnel, including the C.O.P. Unit have been instructed to give this category of crime special attention.

U.D.A.A.:

There were 142 U.D.A.A.s reported in the precinct during the month of August.

Problem Areas:

Scout 7-5	21 U.D.A.A. mostly on platoon #3, concentrated in no particular area.
Scout 7-3	19 U.D.A.A. evenly distributed, with no particular concentration.
Scout 7-8	16 U.D.A.A. mostly on platoon #2, with no particular concentration.

Proposed Remedy:

Seventh Precinct Patrol Personnel and Area Supervisors have been instructed to continue to give special attention to areas where vehicles are left unattended. They were also instructed to increase their investigation of suspicious vehicles on the street.

Seventh Precinct Personnel are continually striving to eliminate the time problem as it develops. Patrol Personnel are being shifted to areas where crime patterns are developing and every effort is being made to keep the Patrol Force informed in regard to the crime situation in the Seventh Precinct.

John D. Gnotek
Sergeant S-65
Crime Analysis Unit
Seventh Precinct

FIGURE 5-10
Example of a Crime Pattern Identification Bulletin

MEMORANDUM

DATE December 12, 1972 CITY OF DALLAS

TO Director R. H. Lunday - Central Division
Director B. J. Edington - Northeast Division
Director C. C. Wallace - Northwest Division

SUBJECT Residence Burglars

Several burglaries have occurred in Northeast and Northwest with the following suspects:

W/M/20's - clean cut - shoulder length hair, parted in middle - 5'11" - 160 lbs. - wore army type field jacket.

W/F/18-20 - long brown hair wearing army type field jacket.

Some of the offenses they have been seen on are:

<u>Beat</u>	<u>Location</u>	<u>Time</u>
212	5656 Live Oak #111-B	4:00 pm
212	1810 N. Fitzhugh #20	4:00 pm
224	1242 Peavy #236	2:00 pm
226	2615 Mayerick	7:00 pm-1:00 am
234	6487 Merry Meadow #154	3:00 pm
534	2809 North Haven	7:00 am-8:00 pm
534	2809 North Haven #1124	9:00 am-3:30 pm

Suspects Vehicle:

68-69 Blue Dodge - Oregon License
64-65 White Ford PU - License 4V-468
Chev. PU White, crumpled right front fender 4V-6300

Crimes Against Property says these license are registered to junker cars.

If these subjects are arrested please contact J. W. Dyson - Crimes Against Property.

Kathryn Bonham
Operations Analysis Unit

KB:dp

CRIME ANALYSIS PATTERN

CRIMINAL INVESTIGATION DIVISION
Auto Theft Section

#73-A/T-009

17 January 1973

TO: Deputy Chief of Patrol, Area 4; District Commander, 10th District;
Commanding Officers of Traffic, Special Operations Group, Youth and Auto Theft
Units, Area 4; Patrol Division Liaison Officer; Field Lieutenant 1090;
Patrol Sergeant 1084; _____; Beat Officer 1018; _____; _____.

CRIME PATTERN: MAJOR STRIPPING (TIRES) IN THE 10TH DISTRICT

<u>Beat of Theft</u>	<u>Beat of Recovery</u>	<u>Type</u>	<u>Location of Recovery</u>	<u>Time</u>	<u>Day</u>	<u>Date</u>	<u>RD Number</u>
1421	1018	71 Pontiac	2258 S. Kolin	0530	Thurs	4 Jan	N-003039
2036	1018	73 Cadillac	4429 W. Cermak	0800	Sun	7 Jan	N-007103
1019	1018	73 Buick	2309 S. Kenneth	2145	Fri	12 Jan	N-013753

GENERAL TIME PATTERN: All Watches

REMARKS: Reports indicate late model General Motor products are stolen from various locations in the city and recovered stripped of all tires and wheels on Beat 1018.

BEAT MEN, TACTICAL UNIT AND SPECIAL OPERATIONS GROUP:

Aggressive patrol should be employed in areas of seclusion such as empty lots, alleys or abandoned garages where it is convenient for the stripper to work undetected.

CHECKPOINT: Persons driving a late model auto with old worn tires or a pulled door lock should be the subject of a street stop and intensive field interrogation. Persons who appear to be working on an auto or changing a tire should be investigated. Keep in mind the right door lock is usually pulled.


PATRICK McDONOUGH, COMMANDER
AUTO THEFT SECTION

Notify the Auto Theft Section, Criminal Investigation Division, Headquarters (PAX 394) if an arrest results from this information, or if an arrest is made by normal patrol or investigation which would affect the continuance of this Pattern.

gained by the analysis sections that identify the problem for particular line supervisors but leaves the solution to the supervisor.

However, formal feedback on the strategy adopted and its effectiveness should be transmitted back to the crime analysis section

★ CRIME ANALYSIS PATTERN

Criminal Investigation Division Ref. # 72 - R - 24A Date 10 April 1972
 Robbery Section Ref. # 72 - R - 24

TO: Deputy Chief of Patrol, Area 3; District Commander 7th Dist.;
 Dep./Chief, Special Operations Group; Patrol Division Liaison Officer; Commanding
 Officers of Auto Theft, Burglary, General Assignments, Homicide/Sex, Robbery,
 Special Operations Group, Traffic, Youth, Area 3; All Field Lieutenants;
 All Patrol Sergeants; All Beat Officers.

CRIME PATTERN ARMED ROBBERY - DELIVERY TRUCKS
 IN 7th DISTRICT(S)

<u>Beat</u>	<u>Type</u>	<u>Location</u>	<u>Time</u>	<u>Day</u>	<u>Date</u>	<u>R. D. No.</u>
710	Armed-Ross Oil	6807 S. Justine	1230	Fri	25 Feb	M-069198
728	Armed-Hartigan Oil	1311 W. 71st St.	1310	Fri	3 Mar	M-078677
728	Armed-Ebonie Oil	7049 S. Throop	1825	Mon	13 Mar	M-091908
710	Armed-Ward's Baking	6910 S. Bishop	1150	Thu	23 Mar	M-104699
719	Armed-Hostess	69th & Elizabeth	1450	Tue	28 Mar	M-111628
728	Armed-Ogden Oil	7220 Racine	1505	Tue	28 Mar	M-111706
719	Armed-Ebony Oil	6934 S. Throop	1100	Fri	31 Mar	M-115204
726	Armed-Gillund Dairy	950 W. 72nd St.	0915	Thu	6 Apr	M-123584
728	Armed-UNKNOWN	7020 S. Throop	1610	Thu	6 Apr	M-124075
728	Armed-Midway Oil	1262 W. 72nd St.	1605	Fri	7 Apr	M-125410

GENERAL TIME PATTERN: 2nd & 3rd Watches

WEAPON: B/S Revolver and N/P Revolver

DESCRIPTION: 2 or 3 M/N'S

#1-M/N, 16-20, 5'6-5'10, 155-165, medium complexion wearing brown 3/4 length coat, dark pants, and tennis shoes.

#2-M/N, 16-20, 5'6-5'10, 160-170, dark complexion, wearing tan hat, dark blue or black car coat and blue levi pants.

M.O.: Offenders approach victim, after he is done making delivery
 Offenders produce weapons and announce hold-up, and
 offenders reach into victim's pocket and take USC William B. Griffin
 and all flee on foot. Commander-Robbery Section

Notify the Robbery Section, Criminal Investigation Division Headquarters (PAX 386) if an arrest results from this information.

within a period of from five to seven or ten days. Some crime analysis operations have adopted the use of directed pre-planned patrol routes in which specially assigned units are given routes specifying streets, times, and directions of travel for a specified

FIGURE 5-12
Example of a Crime Pattern Identification Bulletin

MEMORANDUM

DATE February 16, 1973

CITY OF DALLAS

TO Assistant Chief Paul Townsend
Patrol Bureau

SUBJECT Armed Robberies of Pizza Parolors

As of Friday morning, February 16th, three armed robberies of pizza places have occurred. The three robberies were definitely committed by the same suspect(s). The suspects will be two Mexican males. The descriptions follow:

- #1 Mexican male, probably late twenties, 6'1" tall, His weight varies from 180#-210#. Dark brown hair, shortish.
- #2 Mexican male, also late twenties, 5'9"-6' tall. Weight varies from 170#-210#. The 210# on this suspect will probably be quite a bit too heavy. This suspect being the shorter of the two, he will have a small mustache. In the last offense both suspects had band-aids over their lips as if to hide mustaches.

The last two A/R have occurred at closing time around 12:00 a.m. The men pull .45 automatics (one will have brown grips and possibly the other will have pearl handles) then tape the peoples hands and feet up with masking or adhesive tape. On the A/R on Lemmon on the 6th, only one man went in. He was there eating for an hour before he held it up. On the A/R on Audelia on the 4th, both men had been in previously but had left and then came back.

These locations have been robbed by the pair.

Pizza Hut	9721 Audelia	2/4	10:38 pm
Pizza Hut	4436 Lemmon	2/6	12:20 am
Pizza Inn	3619 Forest Ln.	2/16	12:15 am

period. This latter method provides a technique very conducive to evaluating the operational strategy (by utilizing the experimen-

tal methodology briefly discussed in the last chapter).

The issuance of crime pattern identifica-

FIGURE 5-12
Example of a Crime Pattern Identification Bulletin (con't.)

Assistant Chief Paul Townsend
February 16, 1973
Page 2

It might prove to be very beneficial to keep an eye on these locations at closing time this month.

<u>Pizza Hut</u>	<u>Pizza Inn</u>
8148 Spring Valley	2834 N. Buckner
4208 Live Oak	7260 Gaston
9721 Audelia	5460 Lemmon
4436 Lemmon	5632 E. Mockingbird
	5450 E. Mockingbird
	3140 W. Northwest Hwy.
	2604 Oak Lawn
	6565 Skillman
	3619 Forest Ln.

Martha McGee
Operations Analysis Unit

MM:jb

cc: Director B. J. Edington
Director C. C. Wallace
Director R. H. Lunday
Lieutenant L. W. Spradlin
Captain P. G. McCaghren

tion bulletins can greatly aid department operations. For example, where an officer effects an arrest based solely on information received from a CPI, the officer may, out of necessity, resort to citing the crime analysis information as the basis for the stop in his

offense report. In this case, the analyst responsible for identifying the pattern and disseminating the information may be required to provide testimony in court to successfully prosecute the case.

8. *Investigative Lead or Crime Correlation*

FIGURE 5-13
Examples of the Investigative Lead Report

OFFENSE EVALUATION RPT.
CRIME ANALYSIS SECTION
BUREAU OF FIELD OPERATIONS.

TO: C.I.D. REPORT CONTROL SECTION	CRIME REPORT BURGLARY (459PC)	RD# 72-09173
COMPLAINANTS NAME SPENCER, Eugene M.	DATE AND TIME COMPLETED 14 Feb 72	1930
<p>THE ABOVE MENTIONED REPORT HAS BEEN REVIEWED BY THIS SECTION AND IT IS FELT THAT THE FOLLOWING INFORMATION MAY BE OF VALUE TO THE INVESTIGATOR.</p> <p>On the 14Feb72 between 1900-1915hrs a 459PC occurred at 8025 Greenridge Dr. The suspect in the report was described as an MN 20-30 5-9 155 pounds. On the 10Feb72 at 1500hrs a known burglar was FC'd in the same area. The description of the suspect and the FC'd suspect don't match BUT the passenger that was with the FC'd subject DOES match the suspect seen. The person in question is: NEARS, Sylvester MN 22 (16Sep49) 5-7 155 pounds address of 236 Sextus Rd. 638-1075. Attached you will find a copy of the FC. As you will find, the FC indicated that the subjects tried to evade OPD officers. Their vehicle at that time was a 58 VW convert. whi IKE785.</p> <p>BY: <u>d Nishihara 6616S</u> CRIME ANALYSIS OFFICER</p>		

FIGURE 5-13
Examples of the Investigative Lead Report (con't.)

OFFENSE EVALUATION RPT.
CRIME ANALYSIS SECTION
BUREAU OF FIELD OPERATIONS.

TO: C.I.D. REPORT CONTROL SECTION	CRIME REPORT BURGLARY (459PC)--Locked Auto	RD# 72-09484
COMPLAINANTS NAME DANIELS, Reonna FN29	DATE AND TIME COMPLETED 16Feb72	
THE ABOVE MENTIONED REPORT HAS BEEN REVIEWED BY THIS SECTION AND IT IS FELT THAT THE FOLLOWING INFORMATION MAY BE OF VALUE TO THE INVESTIGATOR.		
<p>The ID left by the suspect had the name of ALLEN, Glenn N. MN (1Apr51). The FC file was checked for this individual and numerous cards were on file for this subject. The FI's were primarily routed to Burglary Detail but other FI's were sent to homicide and robbery details. Below is the information extracted from the FC's on file:</p> <p>ALLEN, Glenn Nicholas MN (1/apr/51) 5-8 145 1107 Stanford Ave #8 (11Nov71) 1834 Wood St (6Nov70) 1672-7th St (6Aug70)</p> <p><u>IN COMPANY WITH:</u></p> <p>AIKENS, Lee MW 34 767 Santa Rey---67 Olds 4dr TKF900 ADAMS, Tony Milton MN17 355-7th St---57 Chev 2dr ZGS748 ROBERTSON, Charles MN 11Mar42 1672-7th St BOBO, Edward Lee MN---10799 Pippin Rd 62 Olds 2dr whi DPV842 ROMERO, Edward Lee MM 19 10025 Edes " " " " "</p>		
BY: <u>d Nishihara 6616S</u>		CRIME ANALYSIS OFFICER

FIGURE 5-14
Example of the Major Crime Bulletin

SPECIAL BULLETIN

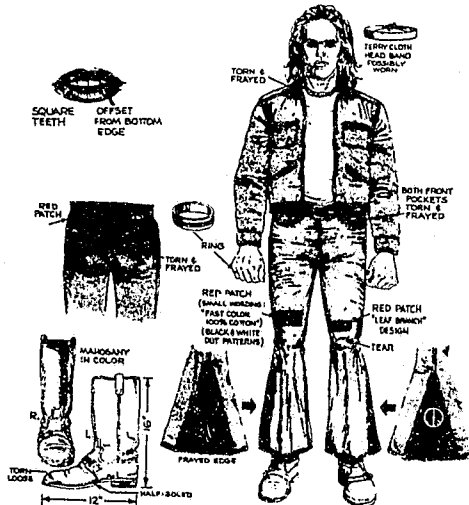
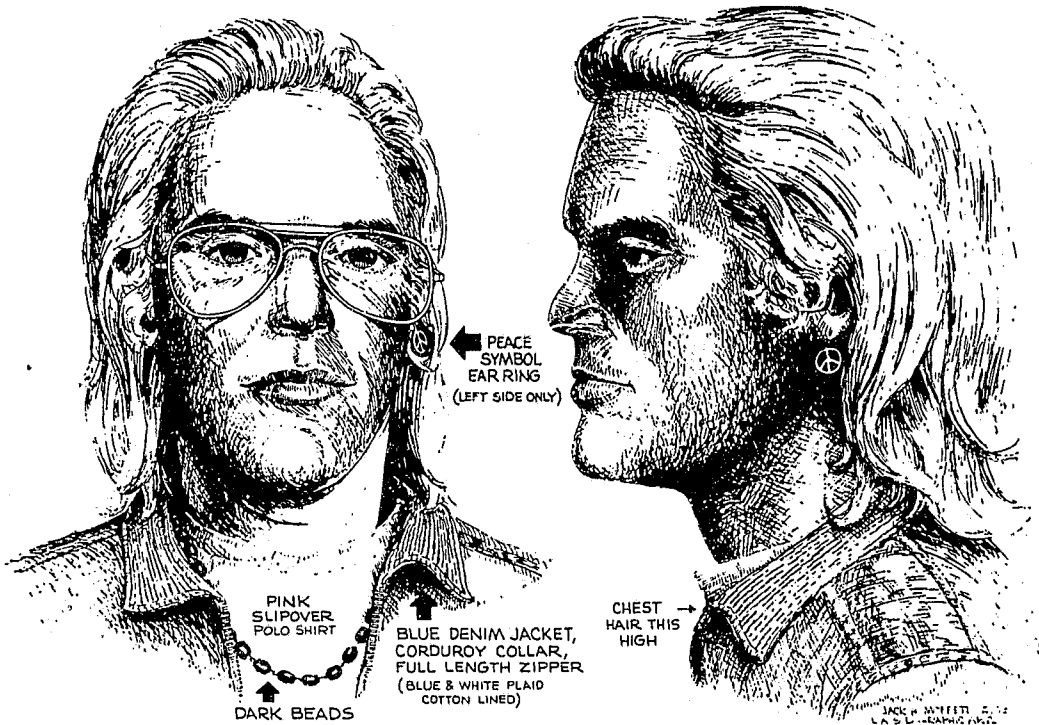
LOS ANGELES COUNTY SHERIFF'S DEPARTMENT

PETER J. PITCHESS · SHERIFF

3H-AD-287

INFORMATION WANTED

UNIDENTIFIED MURDER VICTIM JOHN DOE #158



-OVER-

FIGURE 5-14
Example of the Major Crime Bulletin (con't.)

DESCRIBED AS MALE CAUCASIAN, 18 TO 25 YEARS OF AGE, 6'3", 195 LBS., SHOULDER LENGTH BROWN HAIR (REDDISH TINGE), BLUE EYES, LIGHT TO MEDIUM COMPLEXION. VICTIM HAS A 2½" SURGICAL SCAR IN THE OUTSIDE OF THE RIGHT KNEE CAP, A 6" SCAR (T-SHAPED) OVER THE TAILBONE AREA, ARMS AND BODY CLEAN AS TO TATTOOS WITH NO HYPERDERMIC MARKS.

VICTIM FOUND 0930 HOURS, NOVEMBER 5, 1972 IN THE RAVINE BESIDE A ROADBED IN THE HACIENDA HEIGHTS AREA OF LOS ANGELES COUNTY. HE HAD BEEN SHOT TWICE AT CLOSE RANGE AT THIS LOCATION WITH A .20 GAUGE SHOTGUN, ONCE THROUGH THE LEFT SIDE OF HIS FACE AND ONCE THROUGH THE RIGHT SHOULDER, AND ONCE WITH A .45 CALIBER AUTOMATIC THROUGH THE HEART.

CLOTHING WORN BY VICTIM SUGGESTED HE MAY HVE BEEN ASSOCIATED WITH A MOTORCYCLE GANG OR WAS A HIPPIY. VICTIM APPARENTLY SMOKED SALEM CIGARETTES AND HE HAD IN HIS POSSESSION A BOOK OF MATCHES FROM WASHINGTON, D.C. WITH THE POLITICAL ADVERTISEMENT ON THE FACE COVER ADVERTISING HAROLD RUNNELS, CONGRESSMAN, 2ND DISTRICT, NEW MEXICO.

EFFORTS TO IDENTIFY VICTIM THROUGH FINGERPRINTS HAVE BEEN NEGATIVE AS TO FBI (CIVIL, CRIMINAL, OR MILITARY) AND AS TO CII, LAPD, OR LOS ANGELES SHERIFF'S DEPARTMENT. FINGERPRINT CLASSIFICATION IS AS FOLLOWS:

25	L	29	W	100	22
	1	2	R	001	19

PHOTOS AVAILABLE.

ANY INFORMATION FOR PETER J. PITCHESS, SHERIFF, LOS ANGELES COUNTY, REFER TO SERGEANT LAWTON OR DEPUTY POLLOCK, HOMICIDE BUREAU, DETECTIVE DIVISION, TELEPHONE 626-9511, FILE NUMBER 072-17617-1479-010.

2/73

Reports. As stated above, the investigative lead or crime correlation report is one of the most important dissemination functions of the crime analysis section. Like the CPI, the crime correlation report is based on analysis of available crime offense report information with the important addition of specific suspect and MO information.

Essentially, the CCR is a report to an individual investigative unit detailing similar-

ities between a particular case or body of cases. This information may be transmitted by the crime analysis section routinely, or it may be the result of a request by an individual investigator actively seeking correlations. Two examples of CCR's are presented in Figure 5-13.

Crime correlation reports are directed toward criminal apprehension and specific case clearances. The number of these re-

ports will be a result of the analyst's expertise and the reliance of the detective units on this crime analysis information.

9. *Specific Major Crime Bulletins.* The major crime bulletin contains information extracted from a particular case and is directed to other law enforcement agencies capable of providing additional information or assistance. An illustration of a major crime bulletin is shown in Figure 5-14.

The purpose of the major crime bulletin is solely for criminal apprehension in a particular case. Many departments require that the individual investigative unit provide this function in specific cases. The advantages of having the crime analysis section provide this function are obvious. The crime analysis operation is set up for information coordination, and investigative personnel are freed from this task and may work toward clearing the case.

In many cases, the crime analysis section is the primary source of information on major crimes and criminal activity which is released to the news media for public dissemination. This is a good system for monitoring public information and aids in eliminating the possibility that a suspect will be "tipped off" by public information.

10. *Special Impact or Evaluation Reports.* Special reports written by the crime analysis section should be made by request only. These reports may take the form of specific study information on proposed or implemented programs or projects with regard to effect on crime rates or percentages. In addition, reports may be in response to a request for a particular analysis of reported crime or criminal activity not usually provided by the analysis section. Special reports from the crime analysis section are less structured than are most of their other reports. Special reports may be written in almost any format as dictated by the type of information conveyed.

B. Informal Information Dissemination

There are various informal means of dis-

seminating analyzed crime analysis information. The importance of informal communication at regular and unscheduled meetings has been previously discussed. Many departments have made concerted efforts to increase informal crime analysis information dissemination. These methods will be examined next.

The Denver Police Department has implemented a program in which information collators are largely responsible for keeping track of known criminal offenders. A large percentage of the collator's time is actually spent in the field where personal contact with regular field officers facilitates information dissemination and communication. A similar method is used by the Seaside Police Department in California in a burglary crime specific reduction effort based on analysis and analyst personal involvement. The special burglary investigators spend approximately half of their available time analyzing reported burglaries. The other half of their time is spent in the field directing the burglary investigations of regular patrol personnel. Again, the analysis information developed by these officers is generally disseminated through informal personnel field contacts.

The Detroit Police Department's 7th Precinct maintains several precinct area crime pin maps in the pre-duty briefing squad room. These maps are maintained on a monthly and previous period basis and are kept in locked glass display cases mounted on the wall. The maps are available for the individual officers and supervisors to refer to and analyze for themselves.

Several police agencies have attempted to physically locate the crime analysis section in areas that are highly accessible to other individual officers. Sworn personnel are generally free to enter the analysis section for personal contact with crime analysis personnel and to examine the analysis process. Techniques such as these tend to increase an individual officer's awareness of the crime analysis section's activity. These techniques also give support to the other dissemination techniques utilized.

Chapter VI

EVALUATION

A. Purpose of Evaluation

A CENTRAL ELEMENT in any program is the establishment of means for evaluating its operational activities and effectiveness. Police administrators with limited fiscal resources will not waste precious manpower on unproductive activities.

Therefore, a critical evaluation scheme must be devised by management to accurately measure both the program's internal productivity and its external impact. Central to an evaluation are certain key administrative concerns:

- Is crime analysis an effective tool in combating crime?
- If so, to what extent?
- Are the services of the crime analysis unit worthwhile or unnecessary?

- If crime analysis is needed, can it be provided by any other means at a cheaper cost?
- Is the crime analysis unit cost-effective?

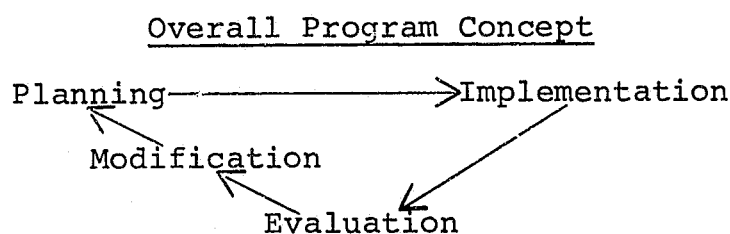
The specified objectives or goals of the crime analysis program will largely control and determine the criteria by which its effectiveness will be measured. Moreover, the goals and criteria should not be restrictive and the evaluation must be flexible enough to expand the criteria—particularly when the crime analysis unit is new.

Evaluation can be understood as a phase in a systematic program development. Ideally, crime analysis unit programs are preceded by a planning process that includes:

- Identification of problems.
- Specification of objectives.
- Analysis of the causes of the problem and shortcomings of existing system.
- An examination of possible alternatives.

"Evaluation follows program implementation and provides a basis for further planning and program refinement. The planning-action-evaluation cycle may be repeated indefinitely until objectives are realized or until problems and objectives are redefined. Results of evaluation may be used to modify the program while it is in progress. When evaluation is viewed as part of the process of planned change, the utilization of evaluation findings in decision making becomes a key concern."¹

FIGURE 6-1



B. Evaluation Methods and Procedures

1. *Establishing the Program Justification.* Where a crime analysis unit program has been implemented, a logical order should exist which forms the basis for the program. This basis, or justification, should be clearly spelled out before the program is implemented and will be used in retrospect to determine which assumptions were valid, and which assumptions had to be subsequently modified. The following outline can

be used in most cases to relate the program to the problem being addressed.

- Define the Problem
Its nature, its extent and its importance. Statistics which demonstrate the problem's scope.
Known information about offender characteristics and crime patterns.
- Present Operations

¹ Caro, Francis G., *Readings in Evaluation Research*. Russell Sage Foundation, New York, 1971.

How the problem is presently handled.
Deficiencies of the current method.

- Crime Analysis Objectives
 - How the crime analysis program will operate.
 - What crime analysis is expected to accomplish.
 - How the present deficiencies will be eliminated.
 - Anticipated reactions of crime analysis user groups.
- Evaluation Data
 - Sources of required data and their sufficiency.
 - Problems in using these data sources.
 - Ways in which data reliability may be affected.
 - Steps taken to insure uniform data quality and reliability.

A program evaluation report should contain an analysis of a prior justification for the program. The logic supporting the program should be modified based on the information developed during the program.²

2. *Crime Analysis Evaluation Problem Areas.* Establishing the relationship between the activities of the crime analysis unit and the final results is not a simple matter. The primary product of the crime analysis unit is informational reports which, to become worthwhile, are dependent upon the actions taken by other user groups within the police agency. The climate in which the reports are received also has a great bearing upon the overall program "impact". Furthermore, external factors which are beyond the control of the program often dictate the conditions under which changes in criminal activity occur. Examples include: shifts in residential patterns, redevelopment projects, changes in attitudes between police and the public, seasonal variations, unemployment, changes in patrol practices, etc.

3. *The Program Evaluator.* A primary responsibility of an administrator is to evaluate the efforts of his agency. Agencies should develop expertise in this area, but if expertise is lacking, qualified consultants should be retained. However, agency personnel should be included on the evaluation team and they should be as involved in the evaluation as the consultants. Complete reliance on outside consultants to conduct the evaluation will only perpetuate a depend-

ency relationship, while contributing little of permanent value to the agency.³

The evaluation problems associated with an "in-house" evaluator generally result from a lack of research expertise. An associated problem is the nature of the relationship between evaluator and the agency conducting the program.

Critical factors in a successful program evaluation are the attitude and objectivity of the agency administrators. "Some may want a fair evaluation of the program, others may want a program to be proved a success regardless of its merits. In the latter case the evaluation may be of little or no value."⁴ However, the agency administrator still needs to make decisions concerning the program as to continuing it, modifying it, etc. The evaluator who has an overall view of the program is in the best position to give the administrator guidance. In spite of the lack of clearcut results, the evaluator should draw conclusions and make recommendations concerning the immediate disposition of the program. Recommendations should also be made regarding further research, program improvement, and program evaluation.

4. *Overview of Evaluation Procedure.* This section contains a summary outline of the steps which should be taken to evaluate a crime analysis program.

General Evaluation Framework for Crime Analysis Program

- Develop the program justification.
- Select the evaluator.
- Choose external measures of impact effectiveness.
- Choose internal measures of productivity.
- Determine data requirements for the measures of impact effectiveness and methods of compensating inadequacies of official crime data.
- Collect and analyze user group responses and impact results.
- Modify the program, data collection procedures, and the measures of effectiveness, as necessary.
- Describe the permanent changes that have resulted from the program.

5. *Internal Evaluation.* The internal evaluation of the crime analysis unit should be oriented toward:

² Evaluation of Crime Control Programs, p. 12, U.S. Dept. of Justice, Law Enforcement Assistance Administration, 1972.

³ Ibid., p. 14.

⁴ Ibid., p. 14.

- Examining those tasks which the unit is performing.
- Identifying users.
- Establishing the overall budget requirements for the crime analysis unit and establishing a cost per unit of work.
- Establishing the degree to which the crime analysis unit is satisfying user group needs.

Employee daily activity reports, or time cards, are an ideal source of collecting data as to the internal activity of the crime analysis unit. These reports describe what work is being actually performed. Summary reports, charts or graphs could later be prepared to illustrate a "time expended" breakdown for each of the user groups, and for the specific report types prepared for each user group.

The following are some considerations which should be given to the design of activity reports for crime analysis unit employees. These are not exclusive and may be modified for adjustment to individual agencies.

Crime Analysis Daily Activity Report

- Time spent for report review (quality control).
- Time spent for filing or record keeping.
- Time spent for analyzing data.
- Time spent preparing output reports by user group.
- Number and type of reports prepared.
- Time spent consulting with user groups.
- Number of offenders identified.
- Number of correlations made.
- Number of new patterns identified.

Additionally, a cost figure should be placed on the crime analysis unit work products. One suggested procedure would first establish the yearly cost of all employee salaries and benefits. To this would be added the yearly crime analysis unit operating expenses including such factors as: depreciation of capital expenditures (equipment), rent, utilities, and all other miscellaneous expenses. The overall cost figure when divided by the total number of man hours worked will give the average cost per hour per employee for the crime analysis unit. Using this figure as a base, it becomes a simple matter to convert the amount of labor being expended into a unit-work-cost figure.

By identifying the amount of time, effort and money which is required to serve user group needs, the administrative staff can

assess whether the crime analysis unit products are "balanced" throughout the user groups, or if the crime analysis unit is favoring one particular user group.

Finally, an attempt should be made to evaluate the unit's activity in terms of meeting user needs. Is the crime analysis unit "doing the right thing" according to those who are receiving its products? Such a determination can be made by attaching a "control sheet" to all crime analysis reports which are produced. These sheets would be completed by the report's user and returned.

Control sheets should be designed separately for each of the main user groups. Figure 6-2 is a modular illustration of some of the considerations which should be given to a control sheet. The design is not fool-proof and only suggests one possible method of collecting evaluation data. It is essential that the control sheet be kept as simple as possible so as not to require an extensive effort to fill out. Possible user responses may be pre-listed or pre-coded.

It should be stressed that control sheets have utility only in determining whether the crime analysis unit is meeting the needs of its users. Once it has been established that the program is operating as desired, the use of control sheets should be quickly terminated or reduced to an occasional sample.

6. Impact Evaluation. Crime analysis is successful when it can provide information which leads to the breakup of criminal operations—either by individuals or organized groups. However, to quantitatively measure the degree to which crime analysis information has led to crime solving and arrests is a difficult matter. Nonetheless, if crime analysis is effective some shift should be observed in the following statistical areas:

- a. Crime rates.
- b. Clearance rates.
- c. Arrest rates.
- d. Property loss.
- e. Property recovery.
- f. Displacement effect.
- g. Crime seriousness index.

Care should be taken in establishing a definite cause-effect relationship. A number of external factors, independent of crime analysis operations, can cause great statistical alterations. Nonetheless, some indication of the unit's effectiveness must be established.

7. Impact Evaluation Measurements.

- a. *Arrest Reports.* Most arrest reports can

FIGURE 6-2
Crime Analysis Control Sheet

<p>No "Use" Response</p> <ul style="list-style-type: none"> <input type="checkbox"/> Information of no value <input type="checkbox"/> Information already known <input type="checkbox"/> Information not needed <input type="checkbox"/> Information did not apply 	<p>Has the information contained within this report been <u>used</u> by you?</p> <table border="1" style="width: 100%;"> <tr> <td data-bbox="821 424 1047 584"> <input type="checkbox"/> No If no, why? </td> <td data-bbox="1047 424 1297 584"> <input type="checkbox"/> Yes If yes, how? </td> </tr> </table>	<input type="checkbox"/> No If no, why?	<input type="checkbox"/> Yes If yes, how?
<input type="checkbox"/> No If no, why?	<input type="checkbox"/> Yes If yes, how?		
<p>Detective User Group</p> <ul style="list-style-type: none"> <input type="checkbox"/> Information identified unknown offense MO pattern <input type="checkbox"/> Information correlated offense MO to known pattern <input type="checkbox"/> Information correlated offense MO to known offender <input type="checkbox"/> Investigative information only <input type="checkbox"/> Information correlated arrestee to offense MO <input type="checkbox"/> Other 	<p>Patrol User Group</p> <ul style="list-style-type: none"> <input type="checkbox"/> MO bulletin distribution <input type="checkbox"/> Basis of a special task group assignment <input type="checkbox"/> Establish new patrol practices and/or procedures <input type="checkbox"/> Short-term manpower allocation changes <input type="checkbox"/> Other 	<p>Administrative User Group</p> <ul style="list-style-type: none"> <input type="checkbox"/> Strategy development <input type="checkbox"/> Strategy change <input type="checkbox"/> Community relations <input type="checkbox"/> Public relations (news media) <input type="checkbox"/> Other 	

be modified to provide a check box for crime analysis information by which an officer can indicate if the arrest was based solely or partially on information which was provided by the crime analysis unit. Where possible, reference should also be made to the specific crime analysis unit report number.

b. *Offense Clearance Reports, Property Recovery Reports and Crime Classification Change Reports.* These reports can also be modified to provide similar crime analysis information. An officer's indication of the degree to which crime analysis was responsible for a case being cleared or property being recovered can aid the program evaluator in

determining the program's impact in relation to changes in the overall rates.

Conclusions from the procedures described in this part should be drawn with caution. The critical evaluator must always ask, "Is it true that the arrest (property recovery, case clearance) would not have been made independent of the information provided by the crime analysis unit?" Nevertheless, some weighted value must be placed in the judgment of the officers preparing the report. If, however, the arrest might possibly have been made in any event, did crime analysis save the patrolman/detective any time in investigating the case, and thereby free him to work on other matters?

Chapter VII

MODEL CRIME ANALYSIS SYSTEMS

A. Manual Crime Analysis System

1. *Definition and Limitations.* A manual crime analysis system, by definition, is one in which all methods of data collection, data storage, data analysis, and information dissemination rely on manual processes. The primary limitations of a manual analysis system are staffing levels, data analysis techniques, data storage and retrieval restrictions, and data correlation capabilities. A manual crime analysis system can be adapted to almost any size department. However, the manual analysis system remains best suited to the smaller (50 to 150 sworn personnel) and medium-sized (150 to 300 sworn personnel) departments. Based on the FBI Uniform Crime Reports for 1971, the populations for cities served by these sized departments range from 25,000 to 200,000 inhabitants.

2. *Manual Systems Staffing Levels.* Manual crime analysis requires considerably higher staffing levels than either semi-automated or fully-automated systems to achieve the same level of functions performed. Dependent upon several variables, such as crime rates and unit functional performance (i.e., 8-hour, 7 days a week operation or 16-hour, 7 days a week operation), a general rule for staffing a manual analysis system would be 1½ to 2 percent of total sworn personnel allocated, or 1 to 1½ percent total personnel including clerical staff. Applications of this formula are presented for various sized departments in Table 7-1.

It should be emphasized that this table is only to indicate the relative minimum staffing levels for a manual system capable of providing a majority of the crime analysis functions as presented later in this section.

3. *Data Collection in the Manual System.* The data source departments to be analyzed in a

TABLE 7-1
Minimum Staffing levels for a Manual Crime Analysis System

No. of Sworn Personnel		No. of Clerical Personnel		Total Personnel		Personnel Assigned to Analysis Section
50	+	10	=	60	=	1
75	+	15	=	90	=	1.5
100	+	20	=	120	=	1.8
125	+	25	=	150	=	2.3
150	+	30	=	180	=	2.7
175	+	35	=	210	=	3.2
200	+	40	=	240	=	3.6
225	+	45	=	270	=	4.1
250	+	50	=	300	=	4.5
275	+	55	=	330	=	5
300	+	60	=	360	=	5.4

manual system are the actual documents (or reproductions) that have been written by the personnel providing information to the analysis section. Procedures must be established to provide this information to the analysis section in an organized and timely basis.

Many of the data documents to be analyzed by the crime analysis section are received by direct routing. Examples of data documents received by the crime analysis section via direct routing are:

- All or selected criminal offense reports.
- All or selected criminal offense supplemental or continuation reports.
- All field contact or interrogation cards.
- All arrest reports.
- All subject conditional probation statements as received by the department from the courts.
- Copies of all outside law enforcement agency reports received by the department relating to previously recorded criminal offense reports or known resident criminal subjects (such as stolen vehicles recovered by others).
- Any special forms designed to communicate information directly to the analysis section (such as information to be included on the confidential information bulletin, etc.).

This listing is presented for illustrative purposes. The means by which these data documents reach the analysis section may

vary, but it is important to note that the information is systematically directed to the attention of the section.

A manual crime analysis operation will, by necessity, obtain much of its analysis data by personal contact with other department members or personal retrieval. This analysis data may vary from information received at a staff meeting to information obtained from recorded information not readily accessible (such as booking photos or criminal histories obtained from the central records section). Examples of these types of analysis data are:

- Recorded information not readily accessible to the analysis section.
- Solicited information such as officers' opinions.
- Information not normally or regularly received.
- "Soft intelligence" information received from field personnel for coordination and correlation purposes.

Again, this listing is not intended to be exhaustive.

4. *Data Analysis in the Manual System.* The analysis of information received in a manual system relies on extraction of elements from actual source documents. The information obtained is analyzed utilizing the methods discussed previously, such as the manual-visual techniques, in an effort to identify patterns and correlations.

Analysis in the manual system is extremely reliant on the skill, expertise, and motivation of the individual analyst. The tasks of extracting data elements and manipulating them is often laborious and time-consuming. However, an inherent advantage of the manual system is that the analyst is personally involved in the process and understands his work. For this reason manual analysis is rewarding when crime patterns are identified and criminal offenders apprehended as a result of the analyst's efforts.

5. *Data Storage in the Manual System.* In a manual crime analysis system all files are updated, maintained, and purged by manual methods. The files and record keeping techniques are designed around the following:

- Extensive crime logs or ledgers containing condensed criminal offense report information of the type presented in the Daily Crime Recap.
- Cross-filing techniques or card systems designed to facilitate information retrieval from various sources with little available information (such as alias or

moniker for reference to known offender files or vehicles to suspect files).

- Alphabetical and suspect descriptive files of field contact cards with possible cross-referencing to time and geographical factors as well as associate information.
- Known offender files containing basically the same information as the known offender identifier in addition to more extensive information with cross indexing to vehicles file, associates file, crime type MO file, and possibly reference maps.
- Past analyzed records such as photographic slides of maps, acetate plastic map overlays, graph records, and published reports.

6. *Information Dissemination in the Manual System.* The information disseminated by the manual crime analysis system is largely dependent on the staffing level. Given sufficient personnel, the manual system can generate a majority of the written techniques previously discussed. The decision of which written techniques to use is left to the particular department as need defines. The various techniques can be reidentified as:

- Daily Crime Recap.
- Daily Confidential Information Bulletin.
- Known Offender Identifier or Suspect MO Bulletin.
- Weekly Crime Summary.
- Weekly Public Newsletter.
- Monthly Analysis Section Report.
- Crime Pattern Identification Bulletins.
- Investigative Lead or Correlation Reports.
- Specific Major Crime Bulletins.

7. *Operating Model of a Manual Crime Analysis System.* Before constructing a model of a manual crime analysis system, a hypothetical city with an extremely high crime rate will be created with a hypothetical police force as follows:

Jurisdiction Population—100,000
Police Force—200 sworn, 40 clerical

Crime Rate: (average)		Yearly	Weekly	Per Day
Burglary:	Residential	3,650 @	70	@ 10
	Commercial	1,825 @	35	@ 5
Robbery:	Not Armed	1,360 @	28	@ 4
	Armed	730 @	14	@ 2
Auto Theft:	Stolen	1,360 @	28	@ 4
	Recovered	1,360 @	28	@ 4
Theft:	Of Auto Acc.	730 @	14	@ 2
	From Auto	1,095 @	21	@ 3
Rape and Sex Offenses		183 @	3.5	@ .5
Totals		12,293	242	35

Specifications of crime analysis section:

Personnel and Operation:

- 1 Sergeant working 8 a.m. to 5 p.m. Monday thru Friday
- 1 Patrolman working 8 a.m. to 5 p.m. Thursday thru Monday
- 1 Clerk Typist working 8 a.m. to 5 p.m. Monday thru Friday
- 1 Clerk Typist working 8 a.m. to 5 p.m. Saturday and Sunday

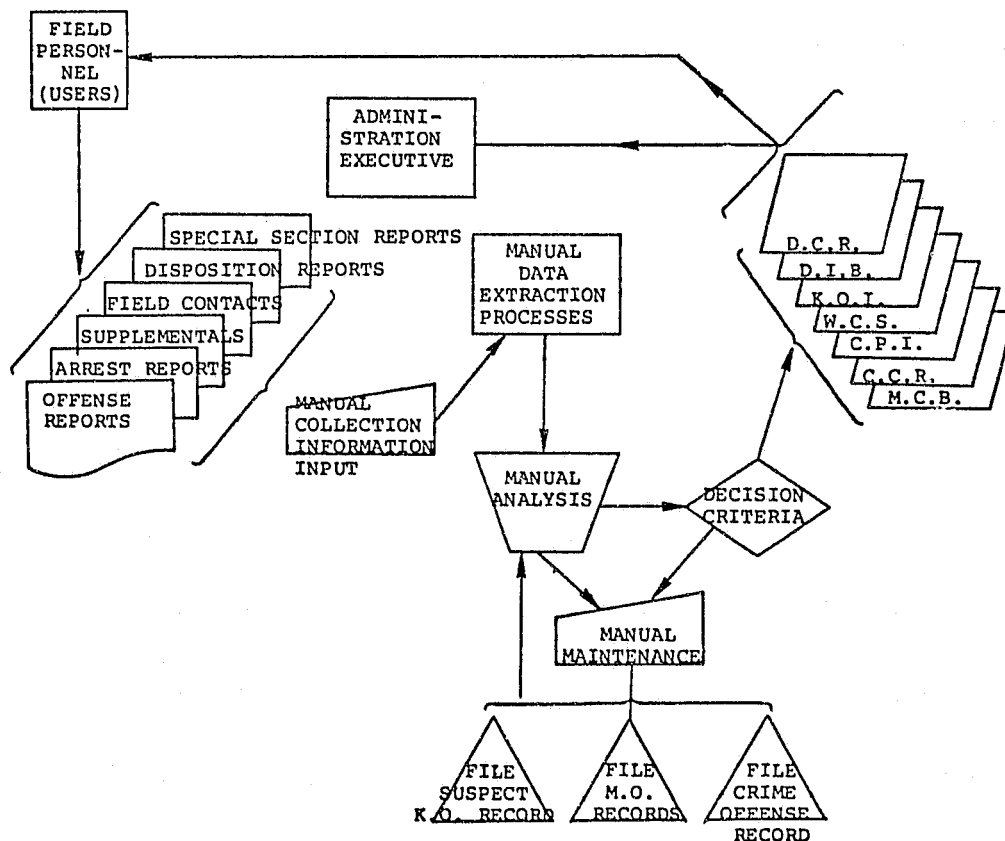
Daily Activity Breakdown:

- Sunday a.m.—Patrolman extracts information from an average 35 offense reports and prepares DCR which is then typed by clerk. Patrolman reviews information for DIB and updates with information from section files. DIB is typed by clerk. Patrolman taking information from DCR updates six wall maps and analyzes geographical information which is com-

pared to known offender residence map.

- Sunday p.m.—Patrolman reviews field contact cards which are compared to DCR. Information is extracted, typed and filed by clerk according to established cross-index files. Patrolman prepares any crime correlation or crime pattern identification bulletins warranted which are then typed and filed by clerk.
- Monday a.m.—Same activity as Sunday a.m. except Sergeant and Patrolman work together. Additional time is spent preparing weekly analysis report for presentation at regularly scheduled Monday p.m. staff meeting.
- Monday p.m.—Sergeant presents weekly analysis section report to staff. Patrol-

FIGURE 7-1
Information Flow and Processing in a Manual System



man performs same activities as Sunday p.m.

- Tuesday a.m.—Same activity as Sunday a.m. except performed by Sergeant.
- Tuesday p.m.—Same activity as Sunday p.m. except performed by Sergeant.
- Wednesday a.m.—Same as Tuesday.
- Wednesday p.m.—Same as Tuesday.
- Thursday a.m.—Same as Monday a.m.
- Thursday p.m.—Both Sergeant and Patrolman prepare KOI's, crime correlation reports, and crime pattern identifiers. Files are updated and checked. Weekly public newsletter is prepared and typed by clerk.
- Friday a.m.—Same as Monday a.m.
- Friday p.m.—Same as Thursday p.m.
- Saturday a.m.—Same as Sunday a.m.
- Saturday p.m.—Same as Sunday p.m.

As can be seen in this condensed example, a functional manual crime analysis system can be efficiently organized to provide a majority of the informational services and coordination previously described. The model presented is for exemplary purposes only. Figure 7-1 depicts the information flow and processing in a typical manual crime analysis system.

B. Semiautomated Crime Analysis System

1. *Definition and Limitation.* A semiautomated crime analysis system is used to connote a batch information processing mode in crime analysis operations. The function of the batch processing mode is that of providing data within some reasonable time, but not simultaneously with operations. This type of processing is frequently accomplished in an off-line manner. Off-line refers to operating devices not under the direct control of the central processing unit. However, batch processing can also operate in an on-line manner, but typically this is not done. For purposes of this section we will discuss the off-line batch processing method.

The primary limitation of this method is turnaround time from initial input into the system until an analysis report is generated. This time factor, coupled with analysis time, often detracts from the timeliness of the information generated. However, proper systems design and development can enhance speed, accuracy, scope and sophistication of information.

2. *Staffing.* The semiautomated crime analysis system requires analyst types with a background in computer-generated information. It requires a person who can analyze and make information useful for operational people. Also, the crime analysis unit should be staffed with knowledgeable police officers possessing the qualifications enumerated under the staffing section of this handbook.

3. *Data Base Input.* The basic input into the semiautomated crime analysis system originates from the field. The forms which the field officer fills out in the field differ from department to department, although the data is much the same. The basic inputs into the crime analysis system are as follows:

a. *Offense Report.* This report can also be referred to as a crime report, complaint report form, incident report, or case report. It is used in any situation involving law violations.

b. *Arrest Report and Booking Information.* These reports are used when an arrest is enacted and detention occurs.

c. *Supplemental Report.* The supplemental report often is referred to as the follow-up report and is used to provide additional information for documenting further investigation or closure by detective personnel.

d. *Field Contact Report.*

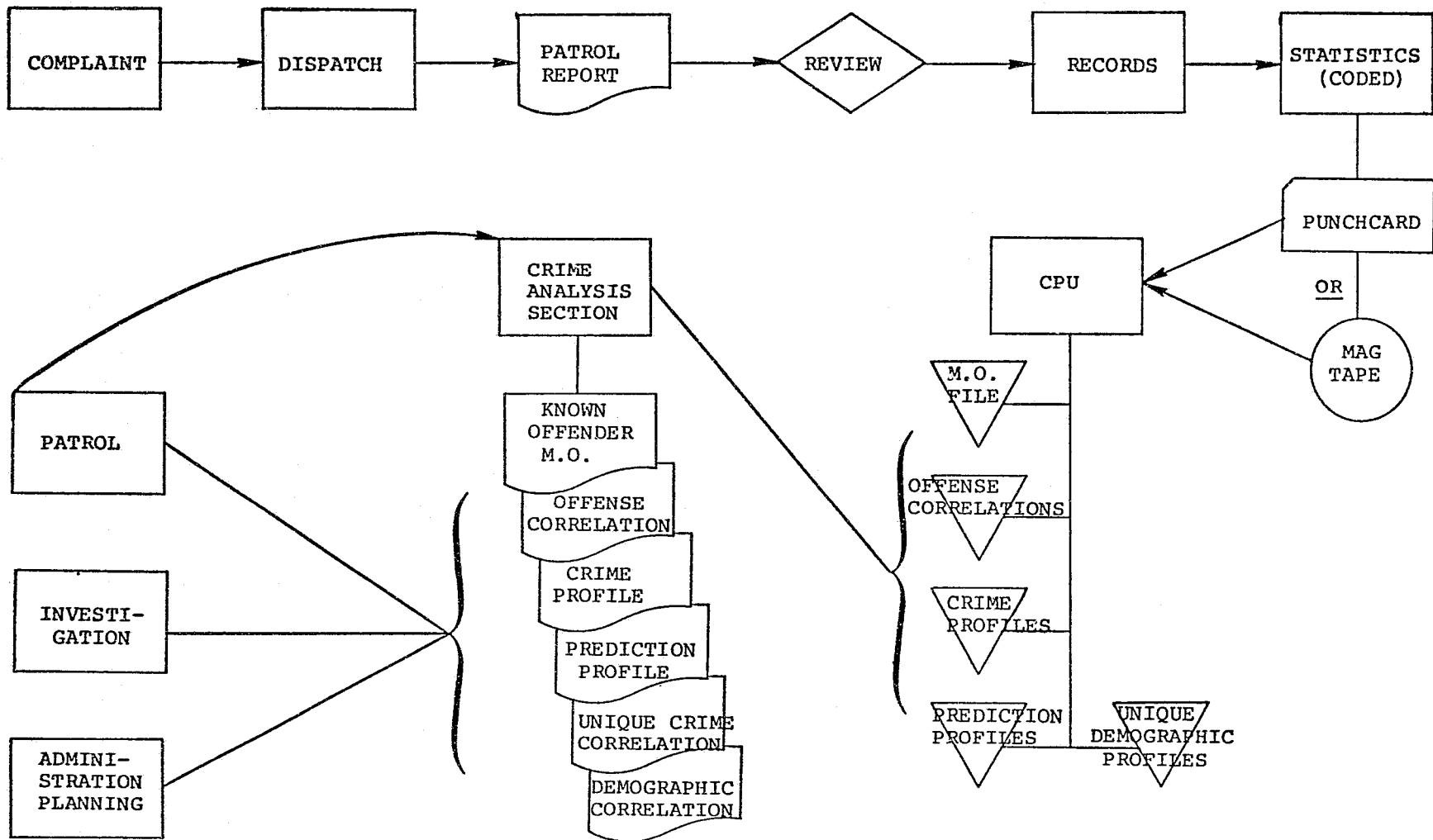
e. *Other Reports.* These include a myriad of inputs ranging from intelligence information to demographic characteristics of the jurisdiction. Typically, this information is not provided by the field officer, but is mentioned here only to demonstrate that inputs are not limited to field officers.

4. *Data Processing.* Processing begins with the receipt of the reports by the records or statistical division personnel. Magnetic tape should be used when feasible to cut costs.

5. *Data Output.* The output of information from the central processing unit is in the form of analysis reports regarding incidents, crime occurrence analysis, modus operandi analysis, criminal (suspect) identification, and crime location analysis. This information must be made operational for field, detective, and planning personnel. Figure 7-2 portrays the semiautomated process.

6. *Data Analysis and Dissemination.* Crime summary data generated from a semiautomated system must concern crimes of a serious nature which have occurred within the various geographic locations within a jurisdiction. The file (CPU), if properly structured, would generate information re-

FIGURE 7-2
 "Flow Process" Semiautomated Crime Analysis System



garding crime trends experienced in the past and expectable in the *future*. The file would be based upon geographic locations, demographic information, seasonal variation, and tendencies affected by allocation of officers. The crime behavioral patterns, such as commercial burglaries that have occurred within specific time periods and are assumed to have some possible interrelation, can be selectively retrieved and evaluated.

Adequate graphic capabilities, utilizing established approaches, can be used to draw pattern and demographic maps, and to derive reliable projections and identify areas which are likely to experience certain kinds of criminal action at certain periods in the future. Crime incidence data relating crime to geographical areas should be generated and evaluated for specific deployment (tactical) purposes. In addition, statistical analysis concerning crime patterns and profiles of time, should be provided as output reports. The reports should take the form of bar graphs, statistical summaries, or line graphs.

The crime report (supplemental) must be classified, coded, and processed so they can be readily retrieved according to numerous identifiers. Possible identifiers should include types of premise, stolen property identifiers, weapons, disguises, vehicles involved, etc.

There is also a need to determine and correlate geographic crime patterns. This involves not only grouping MO factors but also indicating crime patterns during various chronological spans. This information would be plotted on a crime map for maximum utilization.

The system should provide relevant information regarding projected trends dealing with futuristic conditions. Simple semiautomated models based on historical data are unsuited for evaluation of alternatives; therefore, probability predictions will be necessary to derive the fullest impact from a semiautomated crime analysis system.

The information from this system should be disseminated to the appropriate operational divisions on a continuous basis.

C. Automated Crime Analysis System

A fully automated crime analysis system does its data handling and analysis with a computer. The data required for analysis are

captured operationally or by the records or data processing division and entered into the computer system. The analysis section would only be involved in data capture when it has special data entry requirements that were not or could not be supplied by the operational system. All data items needed by the unit for its analytical processes would be captured and stored in computer files. Each data element could be accessed for analysis.

The fully automated crime analysis system requires that the police department have a very sophisticated computer operation in existence—one that can make available to the analysis unit all of the data and computer application programs that are required for crime analysis. Such a system requires a long development and implementation cycle. If the computer system is to adequately support an analysis unit, that is, give it the capabilities required to “fully automate” the crime analysis function, the unit personnel must become actively involved in the development and implementation phases of computer installation. As indicated in the chapters on data base and data analysis techniques, the data elements and analysis techniques that are applicable to crime analysis must be delineated for a specific department and then steps must be taken to assure that proper data elements and techniques are available to the analysis section.

1. *Automated Staffing Level.* The staffing level of an automated crime analysis system is dependent upon the levels of support supplied by other units within the department—data processing, records, statistics, etc. If all the programming, data capture and verification, report preparation, report distribution, etc., are carried out by other units, the staffing level of the analysis section can be relatively small (from five to seven personnel in a department of 500 or more).

But, as the functional requirements of the unit increase, so will the staffing requirement. For example, if the analysis section is required to not only define new or advanced crime analysis programs, but to also do the programming and debugging of the new processes, the staffing level must be changed to include system analysts and programmers. The staffing level of an automated system must be determined by the functional tasks that the analysis unit is required to perform. If these tasks can be accomplished more efficiently or appropriately by another unit, they should be assigned there. But the crime

analysis unit must make certain that each component of the total crime analysis system is adequately functioning, i.e., data collection, data verification, data analysis, analysis results distribution, and effects feedback. In addition, any breakdowns or gaps in the system should be covered by the crime analysis unit.

2. *Data Collection.* The data collection function should be carried out by units other than the crime analysis unit. This should be a separate and distinct task force for dynamic on-line data capture of information. Dynamic on-line data capture is a method of data collection which results in data being input into the computer system at the data sources. For example, as complaint-dispatch-disposition data is generated, it is directly fed into the computer system. This type of system is being implemented in the Tulsa Police Department in Oklahoma. The complaint officer receives the call-for-service over the telephone and records the complaint via a visual display communications terminal on the files of a mini-computer. A complaint report format is presented on a video display screen and the officer inserts the required data. This display is then sent to a dispatcher who uses the data for dispatch decisions. The dispatcher enters the dispatch, field action, and event disposition data into the mini-computer files. At the end of the day, an incident list is prepared for each patrol supervisor who checks to see that the field officers have filed the required reports. The reviewed reports then go to a data-entry-verification station in the records division. Here the computer record (complaint-dispatch-disposition) is compared with the field report and any corrections or additions (additional data relevant to the event that is on the field report and not contained in the complaint/dispatch format) are made and the record is entered into the storage media of the main computer for processing. As follow-up reports, arrests and disposition information are received, the appropriate data is entered into the case record. In this manner, the data is collected and stored in the computer, ready for analysis by the analysis unit. The unit's basic interest in data is that the required data is collected and the data is valid.

3. *Data Analysis.* In an automated system, the basic data analysis tasks are performed by the computer. Crime analysis personnel become interpreters of the analytical results.

In many instances, the results of computer analysis will be statistical statements or complex matrices of data. These must be scrutinized to obtain functional and operational meaning for presentation to the various departmental users in police operation or management language. A grid map with a series of symbols indicating crimes in relation to the time of day may be meaningful to the persons who designed the map or use the map daily, but operations people and management people may waste hours of trying to interpret the map. Thus, one of the basic functions of the analysis unit in an automated crime analysis system is to insure that the computer-produced analysis reports are understood by the department's operational and management functions.

Analysis carried out by a computer is limited only by the data available to be analyzed, the analysis application programs available, and the applicability of the results.

The basic outputs that are available from computer analysis (see Fig. 7-3) are:

- Listings—the computer can produce a listing of any one, a group or all data associated with a particular data element (for example, a vehicle hot sheet of all burglaries committed in the last week).

- Counts—the number of times a specified event or combination of descriptors has occurred (usually within a time frame, i.e., 24 hours).

- Tables and Matrices—the presentation of the results of comparisons or counts in a table or matrix format. A matrix will always present the numerical relationship between two factors or data elements, while a table may present the results of one, two or more relationships.

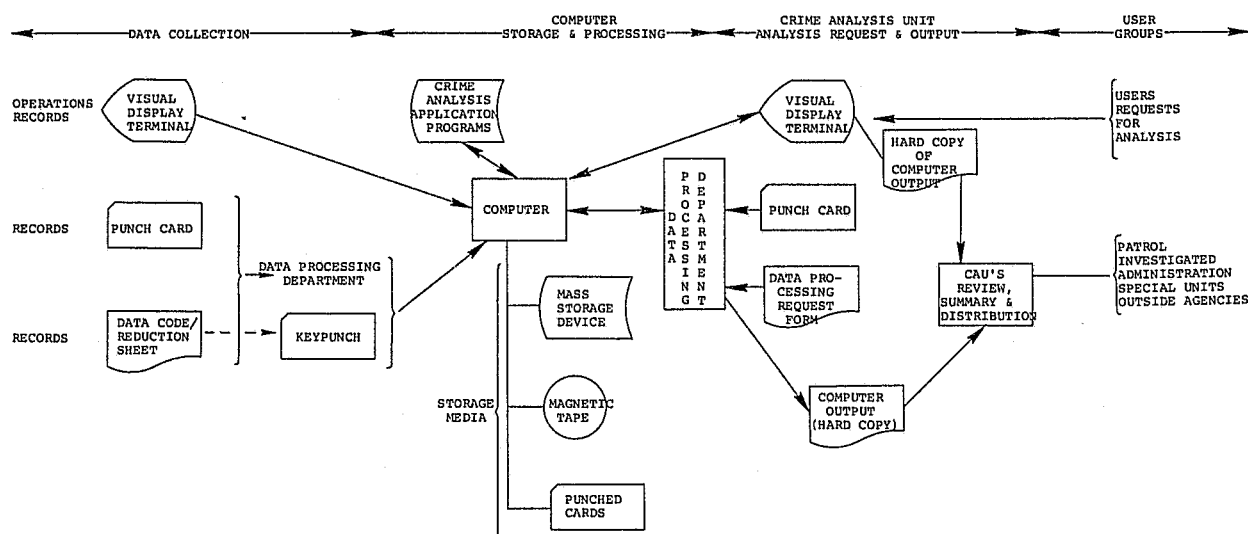
- Graphs, Bar Charts, Histograms—the computer can produce graphic displays of data analysis results in the form of graphs and charts.

- Maps and Plots—the geographic or spatial relationship of events can be presented in the form of maps or data plots.

- Trends or Norm Variances—the computer can establish a normal occurrence relationship and indicate what this occurrence trend is or determine any variations from this trend or stable pattern.

- Pattern Analysis—the computer can be used to evaluate the time-type-location, etc., factors of crime in not only a numerical sense, but in a pattern development or variation sense. Thus, the change in geo-

FIGURE 7-3
Information Flow in an Automated Crime Analysis System



graphic dispersal of burglaries can be determined at a significant level, even though the numerical count and density patterns may remain relatively constant.

- Correlations, Regression Analysis, Factor Analysis, Non-Parametric Statistics, etc.—there are a great variety of statistical analytical approaches that can be performed by a computer. These techniques should be explored by the analysis section in developing advanced analysis techniques.

4. *Data Storage.* The data storage techniques of crime analysis data in an automated system will be determined by the computer system available to the analysis section. The data may be stored on-line, in mass storage units such as magnetic discs or drums; or it may be stored off-line on cards,

magnetic tape or removable disc packs. Data will be maintained by the data processing unit. The crime analysis unit will utilize its storage for computer out-puts and crime analysis reports.

5. *Information Dissemination.* Reports that are generated by the computer and reports compiled by the analysis unit from interpretations of the computer output will be distributed to the users. The analysis unit or a document dissemination function within the department can accomplish this task. Each analysis output should be for a specific distribution or requesting unit. The reports will take the same form as those indicated in the manual system. Some additional reports may be generated that are user specific or based on special requests.

APPENDIXES

APPENDIX A

SAMPLE GRANT PROPOSAL: MANUAL CRIME ANALYSIS UNIT

THE FOLLOWING proposed grant application was developed to aid those police agencies applying for grant funds in order to initiate a formal crime analysis unit within their departments. Hopefully, the sample proposal, when used in conjunction with the Handbook, will provide sufficient information to permit development of a detailed grant application.

The following sample proposal was developed for a department of approximately 175 sworn personnel. The budget and program was developed for a hypothetical department and situation mainly to spark the imagination of those who will develop the proposals to be funded. Items such as placement of the Crime Analysis Unit, salaries, and other cost figures, are listed to draw attention to the issue, not to the proposed answer. As an example, while the salaries of personnel may vary from place to place, the need for personnel is constant. Each department utilizing this sample proposal is urged to modify the program component to fit its needs and is cautioned that the budget figures used herein may not be applicable. Also, the sample proposal format has been adopted from the LEAA Application for Grant Discretionary Funds and may need modification if State Planning Agency funding is sought.

Notwithstanding modification, there is sufficient information to provide vital and valuable assistance to local agencies developing Manual Crime Analysis Units.

BUDGET NARRATIVE*

A. Personnel—\$49,763

The Crime Analysis Unit Staff will be

* See table A-1, Detailed Project Budget.

composed of two full-time sworn personnel, one sworn staff member on a part-time basis and one full-time clerical type.

The Project Director will, administratively, be in charge of the project. In addition, he will be responsible for its operations and reporting and will be the Commander of Field Operations. The day-to-day Crime Analysis Unit operational responsibilities will rest with the Crime Analysis Unit Supervisor, a sergeant, who will supervise one officer and one Clerk-Typist II. (For job descriptions for each, see Handbook Appendix D.)

Major match will be provided by the salaries of the Project Director (15%) and over 40% of the salary of the section supervisor.

B. Professional Services—0—

With the use of the Handbook and drawing upon the knowledge of known experts in police service, consultants need not be utilized.

C. Travel—\$850

1. In-State—\$350

These funds are needed to maintain close coordination with all field divisions and to carry out liaison activities with outside agency personnel. Throughout the grant year, many local trips will be necessary to exchange information and promote coordination and cooperation.

2. Out-of-State—\$500

As described in Section B, the Department intends to make use of short term assistance from specific police experts in the area of Crime Analysis. Either one representative from this unit will visit a selected department known for its sophistication in the crime analysis field or an expert will be brought in (for one week) early in the project to provide guidance in establishing the Crime Analysis Unit. Five Hundred Dollars will cover air transportation and per diem for this service.

D. Equipment—\$3,911

Currently, there is no surplus equipment available to equip the unit, therefore, it is

TABLE A-1. Detailed Project Budget

DETAILED PROJECT BUDGET

A. Personnel

Position	Salary	% of Time	Total	Federal Share	Grantee Share	
					Cash	Inkind
1 Project Director (Capt. of Police)	\$26,950	15%	\$ 4,042			\$ 4,042
1 Section Supervisor (Sgt. of Police)	20,678	100%	20,678	\$11,976		8,702
1 Crime Analysis Officer (Patrolman)	12,600	100%	12,600	12,600		
1 Clerk-Typist II	7,368	100%	7,368	7,368		
		Sub Total	44,688	31,944		12,744
	Benefits (11.36%) Add FICA, Retirement, etc.		5,075	3,628		1,447
	Total		\$49,763	\$35,572		\$14,191

B. Professional Services

C. Travel

In-state coordination with local adjacent agencies 2,500 miles at 14¢ per mile

Out-of-State - 1 trip for one person to provide short term assistance when initiating program

	-0-	-0-	-0-	-0-
	\$ 350	\$ 350		
	500	500		
	\$ 850	\$ 850		

D. Equipment

1 - Executive Desk

1 - Double Pedestal Desk

1 - Typist Desk

1 - Electric Typewriter

1 - Electric Calculator

2 - Desk Chairs (\$105 each)

1 - Typist Chair

2 - Side Chairs (\$42 each)

1 - Coat Rack

1 - Map Ladder with Wheels & Pin Storage Box

6 - Cork Board Mounted Scale Maps of City (\$150 each)

2 - File Cabinets (\$165 each)

2 - Legal File Cabinets (\$127 each)

	Total	Federal Share	Grantee Share	
			Cash	Inkind
	\$ 275	\$	\$ 275	
	200	200		
	270	270		
	570	570		
	500	500		
	210	210		
	52	52		
	84	84		
	106	106		
	160	160		
	900	900		
	330	330		
	254	254		
Total	\$3,911	\$3,636	\$ 275	

E. Supplies and Other Operating Expenses

Office Copying Machine @ \$200 Per Month

Expendable Supplies @ \$30 Per 3 Men Per Month

Offset Printing And City Reproduction Charges

Office Equipment Maintenance @ \$25 Per Month

Postage @ \$15 Per Month

Communications (Including Long Distance Charges)

Office Space - 450 Sq. Ft. for 3 People (Including Files) @ 40¢ Per Sq. Ft.

Equipment Rental, \$25 Per Month

	Total	Federal Share	Grantee Share	
			Cash	Inkind
	\$ 2,400	\$ 2,400		
	1,080	1,080		
	1,500		\$1,500	
	300	300		
	185	185		
	400	400		
	2,160	2,160		
	300	300		
Total	\$ 8,325	\$ 6,825	\$1,500	
Grand Total	\$62,849	\$46,883	\$1,775	\$14,191

necessary to purchase the office furnishings to begin operations. Desks, chairs and related equipment will be purchased on competitive bids as per city purchasing policy.

An electric typewriter is necessary as all of the publications will be duplicated and clear copy is necessary. This will also be purchased on bids through the normal city purchasing policy.

An electrical calculator is necessary to develop statistical information for trends, reports, crime recap logs, and other data. No file cabinets are currently available for this purpose, therefore it is necessary to purchase them through the city purchasing process.

*E. Supplies and Other Operating Expenses—
\$8,325*

As stated in the program objectives, the Crime Analysis Unit will develop daily, weekly, and monthly reports on crime by type, location and time. Also, special bulletins will be generated from this unit. All of these reports will not only necessitate the capability of providing copies of the various reports to the precincts within the city, but also the administrative and support divisions within the department. This capability does not exist in the police department; therefore, based on the estimated cost of the volume to be produced, the proposed copying machine will be able to provide the capability needed.

It will be necessary to distribute voluminous copies of reports (monthly, quarterly, etc.) which will require the use of offset printing equipment. This equipment offers a fast and efficient method of providing these reports. Additionally, special bulletins requiring prints and photographs will be initiated by the Crime Analysis Unit. These reports will also require an offset printer. This capability presently exists through the City and County Reproduction Unit, which can provide the necessary equipment for these reports.

Also, equipment such as tape recorders and dictating machines will be rented on an as needed basis.

Space necessary to house the unit is being provided at a cost of 40c per square foot. One-hundred fifty square feet is being provided for every (3) full-time Crime Analysis Unit staff; however, this space will also be utilized for storage and file space.

PROGRAM PLAN

MANUAL CRIME ANALYSIS UNIT

I. GOALS

The initial step in crime reduction planning is the establishment of a manual Crime Analysis Unit. Consistent with this step, the unit will have the following goals:

1. To increase the number of cases cleared by arrest by correlating the MO of arrested suspects to other current offenses.

The Crime Analysis Unit will maintain alphabetical and suspect descriptive files cross-referencing MO's of arrested suspects with other offenses.

2. To provide investigative leads for detectives by furnishing lists of suspects whose MO's match those of current offenses.

This goal will provide the department a new and systematically recorded investigative information tool directly related in increasing detection and apprehension of criminal offenders.

3. To provide a greater number of crime pattern bulletins for the patrol function, thereby increasing the awareness of field officers and increasing the potential for earlier arrests.

The vehicle for implementing this goal will be daily, weekly, and monthly bulletins on crime by type, location and time. Also, other bulletins will be distributed on criminal behavior patterns and known suspects.

4. To aid in the coordination of special crime suppression task forces.

The Crime Analysis Unit will provide periodic reports of a special nature which will identify crimes, location, and suspects susceptible to selective enforcement task force methods.

II. IMPACT AND RESULTS

The Crime Analysis Unit will have a dramatic impact on coordinating information both inside and outside the police department. This will be accomplished at the sources which provide the information. The departmental sources of information for Crime Analysis Unit operations are communications, patrol, detectives, special units, records and administration. The outside sources are probation, sheriff's office, courts, pawn shops, FBI, state police, NATB, etc.

However, crime analysis will have specific impact and results in the following ways:

1. Better information on crime trends, MO's and location of crimes will be available to field forces and special task force units.

2. Tactical planning and performance will be improved.

3. Operation of field forces will be improved by enhanced deployment capabilities.

4. The investigation function will improve by the distribution of investigative leads.

5. A reduction in selected crimes will occur by utilizing the information supplied by the Crime Analysis Unit for improved apprehension and prevention methods.

6. Numerous statistical information for management decision making will be provided by the Crime Analysis Unit in the form of crime recaps and summaries, etc.

The success of the Crime Analysis Unit will have broad implications for other units within the department and other criminal justice agencies. The impact of this unit by providing a vehicle for improved police effectiveness and efficiency is apt to reach further than the departmental level.

III. METHODS AND TIMETABLE

The methods employed by this unit will essentially be manual data extraction and analysis. The basic documents which will be received and analyzed by the Crime Analysis Unit are:

- Selected criminal offense reports.
- Selected criminal offense supplemental or continuation reports.
- All field interrogation cards.
- All arrest reports.
- All subject conditional probation statements as received by the department from the courts.
- Copies of all outside law enforcement agency reports received by the department relating either to previously recorded criminal offense reports or known resident criminal subjects (such as stolen vehicles recovered by others).

Also, information will be obtained through personal contacts with department members. This may take the form of opinions and "soft" intelligence.

The analysis of the information will be done concerning the following factors:

- Crime type, burglary, rape, etc.
- Geographic area, block, street, etc.

- Chronological factors, day of week, month, etc.
- Victim target, victim age, sex, victim structure, etc., descriptive.
- Suspect descriptive: name, age, weight, etc.
- Suspect vehicle, make, license, etc.
- Property loss descriptive, serial number, make, etc.

The Crime Analysis Unit will maintain and store the following files to assist in its operation.

- Extensive crime logs or ledgers containing extracted and condensed criminal offense report information of the type presented in the Daily Crime Recap.
- Cross-filing techniques or card systems designed to facilitate information retrieval from various sources with little available information (such as alias or moniker for reference to known offender files or vehicles to suspect files).
- Alphabetical and suspect descriptive files of field contact cards with possible cross-referencing to time and geographical factors as well as associate information.
- Known offender files containing basically the same information as the Known Offender Identifier in addition to more extensive information with cross indexing to vehicle file, associates file, crime type MO file, and possibly reference maps.
- Past analyzed records such as photographic slides of maps, acetate plastic map overlays, graphical records, and published reports.

The key to the success of the Crime Analysis Unit will appear through the mode of dissemination that it uses for getting the information to operational units. The following techniques will be used as a method of dissemination. These will allow for time distribution of relevant information.

Daily Crime Recap (DCR)

The Daily Crime Recap is a listing of selected crimes reported during the previous 24-hour period. This listing will provide a great deal of information covering: crime type, classification, date, time, location, evidence, suspect and vehicle information, and particular MO factors. The information contained in the DCR is extracted from the original offense reports by the crime analyst

and condensed into a form systematically distributed to patrol, tactical, and investigative personnel.

Daily Confidential Information Bulletin (CIB)

The Daily Confidential Information Bulletin contains general information on wanted persons, requests for information assistance, missing persons and juveniles, major crimes not usually on the DCR (such as attempted murder of policemen, etc.), information on known offenders, and general service information such as patrol advice, etc. The information contained in the CIB is extracted from miscellaneous reports; information received from individual patrol and investigative personnel; other jurisdictions; and administrative or supervisory personnel. The information inputs from these various sources are reviewed and condensed by the crime analyst for informational and user needs.

Suspect MO Bulletins

The Special MO Bulletins (SMOB) contain information on known or suspected criminal offenders with: a photo of the subject, crime specialty, aliases, past arrests; addresses, criminal associates, vehicles, requests for field contact information, etc. The information contained in the (SMOB) is received from individual officers, arrest reports, offense reports, supplemental reports, field contacts, etc.

Weekly Crime Summary

The Weekly Crime Summary issued by the Crime Analysis Unit, will represent the publication of analyzed information for a one week period. It will contain information on increases or decreases in crime rate when compared to the previous week or the same week of the previous year, graphs, statistical breakdowns, general crime trends and problem areas, and other crime information.

Crime Pattern Identification Bulletins (CPI)

The content of the CPI is based on the analysis of reported crimes by reference to specific crimes, locations, times, and suspects; it will be both comprehensive and provide either directive or suggested patrol strategies, and it will also identify the prob-

lem pattern and leave the solution to the recipients.

Investigative Lead Correlation Report (ILCR)

Essentially, the ILCR will be a report to an individual investigative unit on a particular case or body of cases exhibiting similarities to other reported offenses or available suspect MO information. This information may be transmitted by the crime analysis section routinely as case correlations are observed; or it may be the result of a request by an individual investigator actively seeking any correlations.

Specific Major Crime Bulletins

The major crime bulletin contains information extracted from a particular case and is directed to any other law enforcement agency capable of providing additional information or assistance.

IV. EVALUATION

The need for a Crime Analysis Unit is critical in assisting patrol, investigation, special units and planning in meeting their responsibilities. To achieve that end, the following goals were delineated for a Crime Analysis Unit operation:

Goal I—To increase the number of cases cleared by arrest by correlating the MO of arrested suspects to other current offenses.

Evaluation Measurement

1. Statistics indicating number of cases cleared of selected crimes.
2. The number of offense correlations and MO bulletins prepared.

Goal II—To provide investigative leads for detectives by furnishing lists of suspects whose MO's match those of current offenses.

Evaluation Measurement

1. The number of Investigative lead correlation reports prepared.
2. The number of apprehensions directly related to the ILCR.
3. The number of special MO bulletins prepared.
4. The number of apprehensions directly related to the special MO bulletin.

Goal III—To provide a greater number of

crime pattern bulletins for the patrol function and thereby increase the awareness of field officers and increasing the potential for earlier arrests.

Evaluation Measurement

1. The number of various bulletins published per reporting period (quarterly).
2. The number of visual displays prepared for field use.
3. The number of changes and kind of change in deployment patterns.
4. Increase of on-view arrests.

Goal IV—To aid in the coordination of special crime suppression task forces.

Evaluation Measurements

1. The number of apprehensions made by special task forces.
2. The percentage of crime decrease attributed to special task forces.
3. The number of stake outs resultant of Crime Analysis Units generated information.

The overall evaluation component will consist of an impact evaluation. This will be described as follows:

Impact Evaluation

The payoff for crime analysis is providing information which leads to the breakup of criminal operations—either by individuals or organized groups. However, quantitative measure of the degree to which crime analysis information enabled a case to be cleared or an arrest to be made is a difficult matter. Nonetheless, if crime analysis is effective, some resultant change will be realized in the following statistical areas:

1. Crime rates
2. Clearance rates
3. Arrest rates
4. Property loss
5. Property recovery

Impact Evaluation Measurements

1. Arrest Reports

Arrest reports will be modified to provide a checkbox for crime analysis information whereby an officer can indicate if the arrest was based solely, or partially, on information which was provided by the Crime Analysis Unit. Where possible, reference will be made

to the specific Crime Analysis Unit report number.

2. Offense Clearance Reports, Property Recovery Reports and Crime Classification Change Reports

These reports will be modified to provide similar crime analysis information. By having the officer indicate the degree to which crime analysis was responsible for a case being cleared or property being recovered, the program evaluator can begin to evaluate the program's impact in relation to changes in the overall rates.

V. RESOURCES

The Crime Analysis Unit will work out of the Field Operation Division and report directly to the Commander of Field Operations. The Field Operation Division consists of all patrol and investigation functions. This will provide the necessary administrative resources necessary for a viable Crime Analysis Unit.

Another important resource will be the staffing of the Crime Analysis Unit. The Crime Analysis Unit will be staffed with representatives from each of the user groups, particularly from patrol and investigation. By so doing, the staff will provide the unit with immediate knowledge of what is "current" in terms of operational problems, present operating procedures and specific needs. Moreover, it also establishes an important informal communications link and rapport between the Crime Analysis Unit and the working level of operations personnel. Also, the officers selected for crime analysis duty will be rotated from the unit after a maximum period of three years. Personnel rotations are desirable if fresh viewpoints and new ideas are to be valued and recruited. Moreover, new personnel provide fresh insights on offender activity.

It is also important that crime analysis duties not be categorized as a "dead end" or "retirement job." Assignment to the unit will be made as an integral part of an officer's career development program.

Officers who will be applying for positions in the Crime Analysis Unit will submit at least three reports of crimes in which they conducted the investigations, or contributed substantially to them. These reports will be evaluated in terms of the candidates' attention to detail and written expression. Poten-

tial candidates will be given an oral interview and a practical aptitude test. An excellent means of establishing analytical skills is to provide the candidate with five-to-ten crime reports with similar MO characteristics. Their ability to correlate offenses, identify similarities, or reach conclusions should provide considerable insight as to their potential. An essential characteristic to look for in screening applicants will be their capacity to be imaginative and perceptive. Candidates must have the ability to identify problems,

isolate the contributory elements, and to make sound judgments. Also, the Crime Analysis Unit will be staffed with an analyst who has a background in computer applications.

The Community Relations Unit will benefit from the Crime Analysis Unit operation. Prevention programs of the Community Relations Unit can be sharply enhanced when positive data, crime trends, MO information and similar types of information are available.

TABLE A-2. *Timetable for Organization and Implementation of Manual Crime Analysis Unit Project*

Timetable:

Task	<u>Tasks by Time and Activity</u>												
	Months												
	0	1	2	3	4	5	6	7	8	9	10	11	12
Phase I													
A. Organization of Project		---	x										
B. Recruit Staff		---											
C. Training of Staff			x	---	x								
D. Develop Plans & Programs				x	---	x							
Phase II													
A. Implementation of CAU Project		x	-----										x
B. Progress Review							x	---	x				
C. Operational Program Assessment					x	-----							x
D. Project Evaluation					x	-----							x
E. Quarterly Report				*						*			---
F. Final Report													---

* Quarterly reports will be published in the 4th and 8th months

- Each dash represents one week

APPENDIX B

SAMPLE GRANT PROPOSAL: SEMIAUTOMATED CRIME ANALYSIS UNIT

THE FOLLOWING proposed grant application was developed to aid those police agencies applying for grant funds to initiate a formal Crime Analysis Unit within their departments. Hopefully, the sample proposal, when used in conjunction with the Handbook, will provide sufficient information to permit development of a detailed grant application.

The proposal was developed for a department needing the capabilities of a semi-automated Crime Analysis Unit. The proposal was developed for a hypothetical department and situation mainly to spark the imagination of those who will develop the proposals to be funded. Items, such as placement of the Crime Analysis Unit, are listed to draw attention to the issue, not to the proposed answer. Each department utilizing this sample proposal is urged to modify the program component to fit its needs. Also, the sample proposal format has been adopted from the LEAA Application for Grant Discretionary Funds and may need modification if State Planning Agency funding is sought.

Notwithstanding modification, there is sufficient information to provide vital and valuable assistance to local agencies developing semi-automated Crime Analysis Units.

No detailed budget information was included in this proposal as it was in Appendix A. The budget for the Manual Crime Analysis Unit was intended only as an example and not as a cost guide. Its value as an example continues to hold true as it applies to the semiautomated Crime Analysis Unit sample grant proposal as well. Such being the case, no budget will be included; however, items to be considered when develop-

ing a budget for such a project include, but should not be limited to, the following:

Personnel

Two apparently paradoxical staffing situations exist. First, as a Crime Analysis Unit evolves from the manual mode to becoming semiautomated, the staffing ratio changes. Automation lessens certain personnel requirements. Secondly, when a Crime Analysis Unit nears total automation, personnel needs, in terms of programmers, key punch operators, etc., increase. Staffing needs should be determined, using the degree of automation as a major consideration.

Professional Services

Consultants can be used for a variety of tasks. An example of some of the tasks a consulting firm can perform include:

- Define the analysis technique, i.e., what type of analysis can be performed with the available equipment.
- Develop programs.
- Act as a facilitator to aid in the system design.
- Perform data base development and data conversion tasks.

Travel

Although the degree may change, the reasons for travel remain basically the same as those outlined in Appendix A.

Equipment

In addition to the items needed to equip an office as detailed in Appendix A, consideration should be given to hardware needed to perform in the following areas:

- Core memory, i.e., the capability of the computer to provide information.
- Data storage devices, i.e., discs, drums, tapes, etc.
- Communications terminals interface assistance.
- Data entry, i.e., key punch machines, key tape machines, CRT terminals, etc.
- Data output, i.e., computer printouts.

Supplies and Other Operating Expenses

In addition to the routine type of needed supplies as described in Appendix A, atten-

tion should be paid to computer related supplies, i.e., punch cards, tapes, paper for printouts, etc.

PROGRAM PLAN

SEMIAUTOMATED CRIME ANALYSIS UNIT

I. GOALS

Crime analysis is a system of examining criminal activity phenomena for the purpose of identifying patterns or trends where they may exist. Crime analysis is one more "tool" of law enforcement which can serve the varying needs of an agency by supplying timely information in suppression, apprehension, prevention and planning activities.

The specific goals of this project are:

1. To identify crime patterns, events having similar characteristics, and supply this information to appropriate units.

This requires the maintenance of computerized files, containing crime profile information, MO and demographic files, and offender information.

2. To provide information for governmental planning agencies relating to security considerations for environmental design of new residential communities and commercial developments.

This will involve a data base which has the demographic features of the city correlated with crime. This will provide a valuable planning tool in the design of future city structures.

3. To develop and implement a program of crime information dissemination and feedback to the uniformed and investigative operations for the purpose of enhancing the detective and apprehension capabilities of those operators.

The vehicle for implementing this objective will be daily, weekly and monthly reports on crime types, locations, time, etc. Many of these documents will be computer generated. Also, bulletins on patterns, MO characteristics and victims vulnerable to crime will be generated. Complementing this objective will be the development and dissemination of computer-generated maps to appropriate patrol and investigative operations.

II. IMPACT AND RESULTS

Crime analysis is most effective when applied to the class of criminal offenses in which there exists a high probability of recurrence or repetition. The class of crime types that occur only in a particular situation do not lend themselves to analysis and should be identified. Most Class I crimes against property can be analyzed with beneficial results. Class I crimes against persons, on the other hand, do not usually benefit from analysis—with the notable exceptions of rape, robbery, and related combinations of offenses such as kidnap-rape, robbery-attempted murder, burglary-rape, burglary-robbery-kidnap, etc. There is some value obtained in analyzing isolated criminal offenses, such as the knowledge of where they are most likely to occur; however, this knowledge is usually difficult to utilize effectively for either preventive or suppressive purposes.

The Crime Analysis Unit will direct its efforts toward the classes of criminal offenses that the police function is most capable of preventing or suppressing and, failing this, those offenses in which the perpetrator can most likely be apprehended. The information coordination function of crime analysis serves the apprehension process while the analysis and strategy formation functions serve the preventive and suppressive processes. Varying methods will be used to supply timely information.

Statistical analysis of crime information for geographical areas will be used to determine where and for what purpose tactical and special assignment personnel should be deployed. For example, a percentage analysis of purse snatch and strong-armed robberies for a particular city during a one month period might indicate that 75% of these crimes occurred in an area comprising approximately 25% of the city.

The computer will be programmed to provide crime information on a regular print out for analysis. By utilizing grid systems and geo-coding methods in conjunction with crime data inputs, computer technology will provide extensive geographical statistical crime analysis.

The connecting of reported crimes to specific criminals requires specific correlation methods and abilities. The use of extracted MO data according to crime type, physical characteristics of the offender, and

incidental information can greatly accommodate this purpose. The data extracted will be categorized and coded to facilitate retrieval in the semiautomated Crime Analysis Unit operation.

The Crime Analysis Unit will also utilize statistics and probability theory which can also be applied to testing the effectiveness of various deployment strategies. For example, by employing experimental methodology, such as selecting experimental and control areas, changes in crime patterns can statistically prove that an observed change in reported crimes would occur with less frequency than 1/20 or 1/100 times unless the experimental variable (the specific deployment strategy) had been the determining factor.

Analysis of crime data will also be used for statistical projections of criminal activity. A Crime Analysis Unit will determine the effect a rezoning or building project change would have on the reported crime rate. An example of this is when the city incorporates or annexes a new section, or when a previously unused area of land is designated as the site of a high density housing project. The crime analysis operation, by selecting a similar housing complex for comparison (and considering density and socio-economic factors) and analysis, will predict with some validity the effect this complex would have on the crime rate for the particular police assignment area. This will serve as a valuable tool in planning deployment strategies.

Specific impact and results that the Crime Analysis Unit will have are as follows:

1. Better information on crime trends, MO's and location of crimes will be available to field forces and special units for apprehension, suppression and prevention purposes.

2. Tactical and strategic planning and performance will be improved.

3. A reduction in selected crime categories will occur by utilizing the information supplied by the Crime Analysis Unit.

4. A means of assessing impact of demographic characteristics upon the crime picture will be provided.

5. Investigation and patrol function will improve based upon the generated crime offender, victim and demographic correlation.

6. Numerous statistical documents will be generated for decision making and planning purposes.

Therefore, it can be seen that the Crime Analysis Unit will have a tremendous impact on interdepartment and intradepartmental units and agencies.

III. METHODS AND TIMETABLE

The methods employed by this unit will be a computer assisted data extraction and analysis system. The basic documents which will be reviewed and analyzed by the Crime Analysis Unit are:

- Criminal offense reports
- Criminal offense supplemental or continuation reports
- Field interrogation reports
- All arrest reports
- Conditional probation reports from courts
- Selected outside agency reports
- City demographic information
- Informal contacts
- "Soft" intelligence

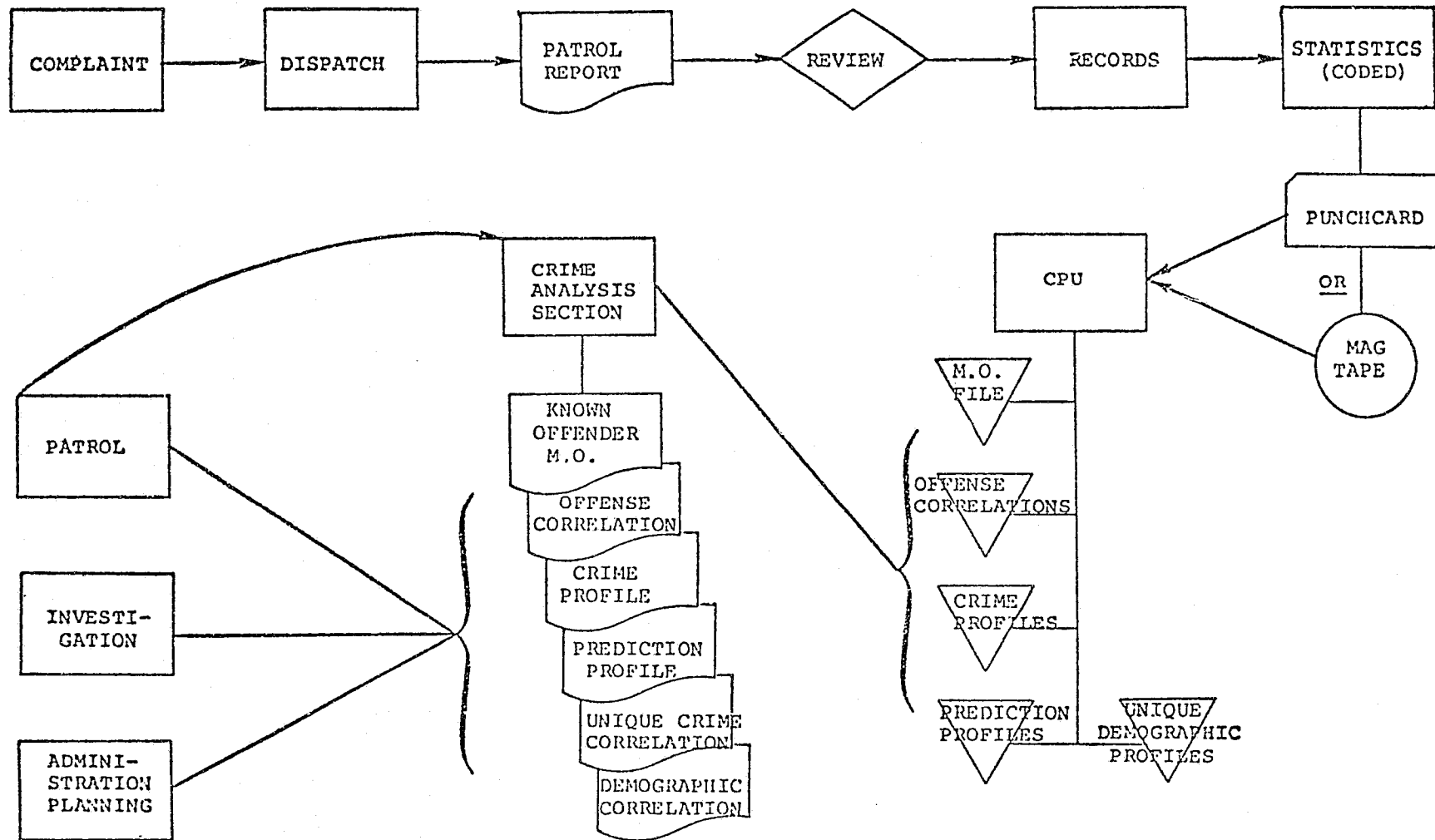
The analysis of the information will be done concerning the following factors and will be greatly aided by computer assistance in extraction and correlation techniques:

- Crime type
- Geographic area
- Chronological factors
- Victim target descriptive
- Suspect descriptive
- Suspect vehicle
- Property loss
- Demographic factors

The Crime Analysis Unit will generate and store the following files to assist in its operation. The majority of these files will be computer stored and generated in an off-line mode.

- Extensive crime logs or ledgers containing extracted and condensed criminal offense report information.
- Cross-correlation techniques programmed to facilitate information retrieval (such as alias or moniker for reference to known offender files or vehicles to suspect files.
- Computerized alphabetical and suspect descriptive files of field contact cards with cross-correlation to time and geographical factors as well as associated information.
- Computerized known offender files containing basically the same information as the Known Offender Identifier in addition to more extensive informa-

TABLE B-1
"Flow Process" Semiautomated Crime Analysis System



tion with cross correlation to vehicles file, associates file, crime type MO file, and possibly reference maps.

- Past analyzed records such as photographic slides of maps, acetate plastic map overlays, graphical records, and published reports.

Table B-1 indicates how the semiautomated Crime Analysis Unit will process information.

The key to the success of the Crime Analysis Unit will appear through the mode of dissemination that it uses for getting the information to operational units. The following techniques will be used as a method of dissemination. These will allow for time distribution of relevant information.

Daily Crime Recap (DCR)

The Daily Crime Recap is a listing of selected crimes reported during the previous 24-hour period. This listing will provide a great deal of information covering: crime type, classification, date, time, location, evidence, suspect and vehicle information, and particular MO factors. The information contained in the DCR is extracted from the original offense reports by the crime analyst and condensed into a form systematically distributed to patrol, tactical, and investigative personnel.

Daily Confidential Information Bulletin (CIB)

The Daily Confidential Information Bulletin contains general information on wanted persons, requests for information assistance, missing persons and juveniles, major crimes not usually on the DCR (such as attempted murder of policemen, etc.), information on known offenders, and general service information such as patrol advice, etc. The information contained in the CIB is extracted from miscellaneous reports, information received from individual patrol and investigative personnel, other jurisdictions, and administrative or supervisory personnel. The information inputs from these various sources are reviewed and condensed by the crime analyst for informational and user needs.

Suspect MO Bulletins

The Special MO Bulletin (SMOB) contains information on known or suspected criminal

offenders with: a photo of the subject, crime specialty, aliases, past arrests, addresses, criminal associates, vehicles, requests for field contact information, etc. The information contained in the (SMOB) is received from individual officers, arrest reports, offense reports, supplemental reports, field contacts, etc.

Weekly Crime Summary

The weekly crime summary issued by the Crime Analysis Unit will represent the publication of analyzed information for a one-week period. It will contain information on increases or decreases in crime rate when compared to the previous week or the same week of the previous year, graphs, statistical breakdowns, general crime trends and problem areas, and other crime information. This will be computer generated.

Crime Pattern Identification Bulletins (CPI)

The content of the CPI is based on the analysis of reported crimes by reference to specific crimes, locations, times and suspects; it will be both comprehensive and provide either directive or suggested patrol strategies, and it will also identify the problem pattern and leave the solution to the recipients.

Investigative Lead Correlation Report (ILCR)

Essentially, the ILCR will be a report to an individual investigative unit that a particular case or body of cases exhibits similarities to other reported offenses or available suspect MO information. This information may be transmitted by the crime analysis section routinely as case correlations are observed; or it may be the result of a request by an individual investigator actively seeking any correlations.

Specific Major Crime Bulletins

The major crime bulletin contains information extracted from a particular case and is directed to any other law enforcement agency capable of providing additional information or assistance.

Graphical Geographical Analysis Techniques

As stated above, graphical analysis meth-

ods include the comparison of prescribed geographical areas to a body of compiled crime data; the compiling of raw data elements into totals which are computer plotted on graphs for identifying criminal trends between crime types and geographical areas. This method of analysis is also suited for comparing criminal activity of a given type between prescribed geographical areas.

Monthly Analysis Section Report

The monthly crime analysis section report contains information for administrative review and evaluation of the section activity and effectiveness. This may take the form of general activity, such as the number of reports or meetings generated, or it may be specific as to problems identified and solved or specific feedback information received.

Identification of Crime Trends and the Projecting of Criminal Activity

It must be accepted that reported crimes or criminal activity will show variations and fluctuations according to several influencing variables. Indeed, one of the most important purposes of a crime analysis operation is to identify changes, such as increases or decreases in any type of body of crime, at the earliest point in time. By utilizing the computer and various analysis techniques, the Crime Analysis Unit will identify patterns and crime changes and make this information available to others. Geographical analysis by crime type and time of occurrence will be used in identifying temporal fluctuations. Once a crime trend or pattern increase has been identified, a strategy will be formulated in an effort to eliminate or alter the pattern.

IV. EVALUATION

The evaluation of the Crime Analysis Unit will cover both an internal and an external evaluation.

Internal Evaluation

The internal evaluation of the Crime Analysis Unit will be oriented toward:

- Examining those tasks which the unit is performing
- Identifying users
- Establishing the overall budget require-

ments for the Crime Analysis Unit, and establishing a cost per unit of work

- Establishing the degree to which the Crime Analysis Unit is satisfying user group needs

Employee daily activity reports, or time cards, will be a primary source of collecting data as to the internal activity of the Crime Analysis Unit. That is, what work is actually being performed. Summary reports, charts and graphs will be prepared to illustrate a "time spent/required" breakdown for each of the user groups, and for the specific report types prepared for each user group.

The following will be criteria in looking at activity reports for Crime Analysis Unit personnel:

- Time spent for report review (quality control.)
- Time spent for filing or record keeping.
- Time spent for analyzing data.
- Time spent preparing output reports by user group.
- Number and type of reports prepared.
- Number of correlations made.
- Number of new patterns identified.

Additionally, a cost figure will be placed on the Crime Analysis Unit Work Products. Procedures will be developed to establish the yearly cost of all employee salaries and fringe benefits. Next, the yearly Crime Analysis Unit operating expenses will be added which should consider such factors as depreciation of capital expenditures (equipment), rent, utilities, and all other miscellaneous expenses. The overall cost figure, when divided by the total number of man-hours worked, will give the average cost per hour per employee for the Crime Analysis Unit. Using this figure as a base, it becomes a simple matter to convert the amount of labor being expended into a unit work cost figure.

By identifying the amount of time, effort and money which is required to serve user group needs, the administrative staff can assess whether the Crime Analysis Unit products are balanced throughout the user groups, or if the Crime Analysis Unit is overemphasizing and favoring a particular user.

Finally, an attempt will be made to evaluate the unit's activity in terms of meeting user needs. In other words, is the Crime Analysis Unit "doing the right things" according to those who are receiving its products. Such a determination can be made by

attaching a "control sheet" to all crime analysis reports which are produced. These sheets would then be completed by the report's user and returned. Table B-2 represents a sample to be used.

An external evaluation component will evaluate the Crime Analysis Unit in terms of impact.

Impact Evaluation

The effectiveness of the Crime Analysis Unit, if correctly applied, should have an impact of breaking up criminal operations. However, to quantitatively measure the degree to which crime analysis information enabled a case to be cleared or an arrest to be made is extremely difficult, but necessary.

Therefore, if crime analysis is effective, some resultant change will be realized in the following statistical areas:

1. Crime rates
2. Clearance rates
3. Arrest rates
4. Property loss
5. Property recovery

Impact Evaluation Measurements

1. Arrest Reports

Arrest reports will be modified to provide a checkbox for crime analysis information whereby an officer can indicate if the arrest was based solely, or partially, or information which was provided by the Crime Analysis Unit. Where possible, reference will also be made to the specific Crime Analysis Unit Report Number.

2. Offense Clearance Reports, Property Recovery Reports, and Crime Classification Change Reports

These reports will be modified to provide similar crime analysis information. By the officer indicating the degree to which crime analysis was responsible for a case being cleared or property being recovered, the program evaluator can begin to evaluate the program's impact in relation to changes in the overall rates.

Another evaluation component will review each goal and the evaluation measurement to see if the Crime Analysis Unit is meeting that goal. The following goals will be evaluated:

Goal I—To identify crime patterns—events

having similar characteristics—and supply this information to appropriate units.

Evaluation Measurement

1. The number of patterns identified
2. Number of apprehensions made
3. Statistics indicating number of cases cleared of selected crimes

Goal II—To provide information for governmental planning agencies relating to security considerations for environmental design of new residential communities and commercial developments.

Evaluation Measurement

1. The number of reports generated around planning security considerations
2. Identification of the number of planning decisions changed as a result of Crime Analysis Unit analysis
3. Estimated dollar loss saved

Goal III—To develop and implement a program of crime information dissemination and feedback to the uniformed and investigative operations for the purpose of enhancing the detection and apprehension capabilities of those operations.

Evaluation Measurement

1. The number and type of bulletins and reports prepared
2. The number of apprehensions directly related to Crime Analysis Unit disseminated information
3. The number and type of changes in field deployment patterns
4. Increase in on-view arrests
5. The number of stake outs resultant of Crime Analysis Unit generated information

The three evaluation components will enable decision makers to assess the effectiveness of the Crime Analysis Unit. To summarize the evaluation, components are:

1. Internal evaluation
2. External impact evaluation
3. Goal achievement evaluation

V. RESOURCES

The resources for the Crime Analysis Unit will evolve around four areas. Namely, organizational placement, staffing, community relations and computerization.

TABLE B-2
Crime Analysis Control Sheet

<p style="text-align: center;">No "Use" Response</p> <ul style="list-style-type: none"> <input type="checkbox"/> Information of no value <input type="checkbox"/> Information already known <input type="checkbox"/> Information not needed <input type="checkbox"/> Information did not apply 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px;">Has the information contained within this report been <u>used</u> by you?</td> </tr> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> <input type="checkbox"/> No If no, why? </td> <td style="width: 50%; padding: 5px; vertical-align: top;"> <input type="checkbox"/> Yes If yes, how? </td> </tr> </table>	Has the information contained within this report been <u>used</u> by you?		<input type="checkbox"/> No If no, why?	<input type="checkbox"/> Yes If yes, how?
Has the information contained within this report been <u>used</u> by you?					
<input type="checkbox"/> No If no, why?	<input type="checkbox"/> Yes If yes, how?				
<p style="text-align: center;">Detective User Group</p> <ul style="list-style-type: none"> <input type="checkbox"/> Information identified unknown offense MO pattern <input type="checkbox"/> Information correlated offense MO to known pattern <input type="checkbox"/> Information correlated offense MO to known offender <input type="checkbox"/> Investigative information only <input type="checkbox"/> Information correlated arrestee to offense MO <input type="checkbox"/> Other 	<p style="text-align: center;">Patrol User Group</p> <ul style="list-style-type: none"> <input type="checkbox"/> MO bulletin distribution <input type="checkbox"/> Basis of a special task group assignment <input type="checkbox"/> Establish new patrol practices and/or procedures <input type="checkbox"/> Short-term manpower allocation changes <input type="checkbox"/> Other 	<p style="text-align: center;">Administrative User Group</p> <ul style="list-style-type: none"> <input type="checkbox"/> Strategy development <input type="checkbox"/> Strategy change <input type="checkbox"/> Community relations <input type="checkbox"/> Public relations (news media) <input type="checkbox"/> Other 			

The Crime Analysis Unit will operate out of the Field Operations Division and report directly to the Commander of Field Operations. The Field Operations Division consists of all patrol and investigation functions. This placement will provide the necessary administrative resources which are necessary for a viable Crime Analysis Unit. Also, it provides for a close-working relationship with the operational users.

Another important aspect of development will be the staffing of the Crime Analysis Unit. The Crime Analysis Unit will be staffed with representatives from each of the user groups, particularly from patrol and investigation. By so doing, the staff will provide the unit with immediate knowledge of what is "current" in terms of operational problems, present operating procedures, and specific needs. Moreover, it establishes an important informal communications link and rapport between the Crime Analysis Unit and the working level of operations personnel. The officers selected for crime analysis duty will be rotated from the unit after a maximum period of three years. Personnel rotations are desirable to obtain fresh viewpoints and new ideas. Moreover, new personnel provide fresh insights on offender activity.

It is also important that crime analysis duties not be categorized as a "dead end" or "retirement job". Assignment to the unit will

be made as an integral part of an officer's career development program.

Officers who will be applying for positions in the Crime Analysis Unit will submit at least three reports of crimes in which they conducted the investigations, or contributed substantially to them. These reports will be evaluated in terms of the candidates' attention to detail and written expression. Potential candidates will be given an oral interview and a practical aptitude test. An excellent means of establishing analytical skills is to provide the candidate with five-to-ten crime reports with similar MO characteristics. Their ability to correlate offenses, identify similarities, or reach conclusions should provide considerable insight as to their potential. An essential characteristic to look for in screening applicants will be their capacity to be imaginative and perceptive. Candidates must have the ability to identify problems, isolate the contributory elements, and make sound judgments. Also, the Crime Analysis Unit will be staffed with an analyst who has a background in computer applications.

Another important resource in the department that will benefit from the Crime Analysis Unit operations, is community relations. When positive data, crime trends, MO information, and similar types of information are available, members of the Community Relations Unit can sharply enhance their prevention programs.

TABLE B-3
Timetable for Organization and Implementation of Semiautomated Crime Analysis Unit Project

Task	<u>Tasks By Time and Activity</u>															
	Months															
	0	1	2	3	4	5	6	7	8	9	10	11	12			
<u>Phase I</u>																
A. Organization of Project	x															
B. Recruit Personnel	x															
C. Training of Personnel		x														
D. Develop Plans					x								x			
E. Develop Computer Component Program						x							x			
<u>Phase II</u>																
A. Implement Programs														x		
B. Progress Review							x	x					x	x		
C. Operational Program Assessment															x	
D. Project Evaluation	x															x
E. Quarterly Report						*				*						--x
F. Final Report																---x

*Quarterly reports will be published in the 4th and 8th months.

APPENDIX C

SAMPLE GRANT PROPOSAL: AUTOMATED CRIME ANALYSIS UNIT

THE FOLLOWING proposed grant application was developed to aid those police agencies applying for grant funds to initiate a formal Crime Analysis Unit within their departments. Hopefully, the sample proposal, when used in conjunction with the Handbook, will provide sufficient information to permit development of a detailed grant application.

The proposal was developed for a department having the capabilities of an automated Crime Analysis Unit. This presupposes that the agency already has on-line computer capabilities, at least for file search access. The data input may be off-line but is more probably also on-line. It is assumed that the computer is programmed for functions other than crime analysis. As with the semi-automated, this sample proposal format has been adopted from the LEAA Application for Grant Discretionary Funds and may need modification if State Planning Agency funding is sought.

No detailed budget information was included in this proposal as it was in Appendix A. The budget for the Manual Crime Analysis Unit was intended only as an example and not as a cost guide. Its value as an example continues to hold true as it applied to the automated Crime Analysis Unit sample grant proposal as well. Such being the case, no budget will be included; however, items to be considered when developing a budget for such a project includes the same considerations that were identified in the introduction to Appendix B.

The fully automated crime analysis system requires that the police department have a very sophisticated computer operation in existence—one that can make available to

the analysis unit all of the data and computer application programs that are required for crime analysis. Such a system requires a long development and implementation cycle. This represents another important consideration that deserves special attention prior to any design or implementation. Thus, one of the first steps should be a detailed capabilities examination of the existing applications and their applicability to the crime analysis function.

PROGRAM PLAN

AUTOMATED CRIME ANALYSIS UNIT

I. GOALS

Crime analysis is a system of examining criminal activity phenomena for the purpose of identifying patterns or trends where they may exist. Crime analysis is one more "tool" of law enforcement which can serve the varying needs of an agency by supplying timely information in suppression, apprehension, prevention and planning activities.

The specific goals of this project are:

1. To identify crime patterns, events having similar characteristics and supply this information to appropriate units.

This goal will entail the Crime Analysis Unit maintaining computerized files, contain crime profile information, MO files, demographic files and offender information.

2. To provide information for governmental planning agencies relating to security considerations for environmental design of new residential communities and commercial developments.

This will involve a data base which has the demographic features of the city correlated with crime. This will provide a valuable planning tool in the design of future city structures.

3. To develop and implement a program of crime information dissemination and feedback to the uniformed and investigative operations for the purpose of enhancing the detective and apprehension capabilities of those operators.

The vehicle for implementing this objective will be daily, weekly, and monthly reports on crime types, locations, time, etc. Many of these documents will be computer generated. Also, bulletins on patterns, MO

characteristics and victims vulnerable crime will be generated. Complementing this objective will be the development and dissemination of computer-generated maps to appropriate patrol and investigative operations.

II. *Impact and Results*

Crime analysis is most effective when applied to the class of criminal offenses in which there exists a high probability of recurrence or repetition. Some value is obtained in analyzing isolated criminal offenses, such as the knowledge of where they are most likely to reoccur; however, this knowledge is usually difficult to utilize effectively for either preventive or suppressive purposes.

The Crime Analysis Unit will direct its efforts toward the classes of criminal offenses that the police function is most capable of preventing or suppressing; and, failing this, those offenses in which the perpetrator can most likely be apprehended. The information coordination function of crime analysis serves the apprehension process while the analysis and strategy formation functions serve the preventive and suppressive processes.

Specific impact and results that the Crime Analysis Unit will have are as follows:

1. Better information on crime trends, MO's and location of crimes will be available to field forces and special units for apprehension, suppression and prevention purposes.

2. Tactical and strategic planning and performance will be improved.

3. A reduction in selected crime categories will occur by utilizing the information supplied by the Crime Analysis Unit.

4. A means of assessing impact of demographic characteristics upon the crime picture will be provided.

5. Investigation and patrol functions will improve, based upon the generated crime offender, victim and demographic correlation.

6. Numerous statistical documents will be generated for decision making and planning purposes.

Therefore, it can be seen that the Crime Analysis Unit will have a tremendous impact on interdepartment and intradepartmental units and agencies.

III. *Methods and Timetable*

The methods employed by this unit will be a computerized data extraction and analysis system. The basic documents used for data input to computer storage and used by the Crime Analysis Unit are:

- Criminal offense reports
- Criminal offense supplemental or continuation reports
- Field interrogation reports
- All arrest reports
- Pawned property reports
- Conditional probation reports from courts
- Selected outside agency reports
- City demographic information

The computer analysis of the information will be done concerning the following factors:

- Crime type
- Geographic area
- Chronological factors
- Victim target descriptive
- Suspect descriptive
- Suspect vehicle
- Property loss
- Demographic factors

Statistical analysis of crime information for geographical areas will be used to determine where and for what purpose tactical and special assignment personnel should be deployed. For example, a percentage analysis of purse snatch and strong armed robberies during a one-month period might indicate that 75% of those crimes occurred in an area comprising approximately 25% of the city. This information would then be forwarded to the appropriate line units for their action.

A fully automated crime analysis system does all its data manipulation and analysis with a computer. The data required for analysis are captured operationally or by a records or data processing division and entered into the computer system. The analysis section will only be involved in data capture when it has special data entry requirements that were not or could not be supplied by the operational system. All data items needed by the unit for its analytical processes will be captured and stored in computer files. Then, each data element can be accessed for analysis.

Analysis of crime data will be used for statistical projections of criminal activity. In an automated system, the basic data analysis tasks are performed by the computer. Crime

analysis personnel become interpreters of the analytical results.

In many instances, the results of computer analysis will be statistical statements or complex matrices of data. These must be scrutinized and the functional and operational meaning extracted to be presented to the various departmental users in police operation or management language. A grid map with a series of symbols indicating crimes committed in relation to the time of day may be meaningful to the persons who designed it or use it daily, but for operations and management people to try to interpret data may cause many hours to be wasted. One of the basic functions of the analysis unit in an automated crime analysis system is to insure that the computer-produced analysis reports are understood by the department's operational and management functions.

The basic outputs that are available from computer analysis are:

- Listings—the computer can produce a listing of any one, a group or all data associated with a particular data element (for example, a vehicle hot sheet of all burglaries committed in the last week).

- Counts—the number of times a specified event or combination of descriptors has occurred (usually within a time frame, i.e., 24 hours).

- Tables and Matrices—the presentation of the results of comparisons or counts in a table or matrix format. A matrix will always present the numerical relationship between two factors or data elements, while a table may present the results of one, two or more relationships.

- Graphs, Bar Charts, Histograms—the computer can produce graphic displays of data analysis results in the form of graphs and charts.

- Maps and Plots—the geographic or spatial relationship of events can be presented in the form of maps or data plots.

- Trends or Norm Variances—the computer can establish a normal occurrence relationship, indicate trends or determine any variations from this trend or stable pattern.

- Pattern Analysis—the computer can be used to evaluate the time-type-location, etc., factors of crime in a numerical sense and in a pattern development or variation sense. Thus, the change in geographic dispersal of burglaries can be determined at a significant level even though the numerical count and

density patterns may remain relatively constant.

- Correlations, Regression Analysis, Factor Analysis, Non-Parametric Statistics, etc.—there are a great variety of statistical analytical approaches that can be performed by a computer. These techniques will be explored by the analysis section in developing advanced analysis techniques.

The data storage techniques of crime analysis data in an automated system will be determined by the computer system available to the analysis section. This data may be stored on-line in mass storage units such as magnetic discs or drums; or it may be stored off-line on cards, magnetic tape or removable disc packs. Data will be maintained by the data processing unit. The Crime Analysis Unit will utilize its storage for computer outputs and crime analysis reports.

The various reports that are generated by the computer, and those compiled by the analysis unit from interpretations of the computer output, will be distributed to the units that use them by the analysis unit or a document dissemination function within the department. Each analysis output should be for a specific distribution or requesting unit. Some additional reports may be generated that are user specific or based on special requests.

The Crime Analysis Unit will utilize the following files to assist in its operation. The majority of these files will be computer stored.

- Computerized crime report logs or ledgers containing extracted and condensed criminal offense report information. This file can be accessed via a number of file search parameters and will be capable of providing either case specific or statistical information as needed.

- Cross-correlation techniques programmed to facilitate information retrieval (such as alias or moniker) for reference to known offender files or vehicles to suspect files.

- Computerized alphabetical and suspect descriptive files of field contact cards with cross-correlation to time and geographical factors as well as associate information.

- Computerized known offender files containing basically the same information as the Known Offender Identifier, in addition to more extensive information with cross correlation to vehicles file, associates file,

crime type MO file, and possibly reference maps.

- Past analyzed records such as photographic slides of maps, acetate plastic map overlays, graphical records and published reports.

- Computerized pawned property files to be utilized in conjunction with the wanted property files of the crime report condensation file.

The key to the success of the Crime Analysis Unit will appear through the mode of dissemination that it uses for getting the information to operational units. The following techniques will be used as a method of dissemination. These will allow for timely distribution of relevant information.

Daily Crime Recap (DCR)

The Daily Crime Recap is a listing of selected crimes reported during the previous 24-hour period. This listing will provide a great deal of information covering: crime type, classification, date, time, location, evidence, suspect and vehicle information, and particular MO factors. The information contained in the DCR is extracted from the original offense reports by the crime analyst, entered into the system on-line, and condensed into a form systematically distributed to patrol, tactical, and investigative personnel. This report will be generated from the crime report file in condensed form. Requests for this report will be on-line with a hard copy output capability. The hard copy will then be duplicated for distribution.

Daily Confidential Information Bulletin (CIB)

The Daily Confidential Information Bulletin contains general information on wanted persons, requests for information assistance, missing persons and juveniles, major crimes not usually on the DCR (such as attempted murder of policemen, etc.), information on known offenders, and general service information. Information contained in the CIB is extracted from miscellaneous reports, information received from individual patrol and investigative personnel, other jurisdictions, and administrative or supervisory personnel. This information will be entered into a computerized file by the Crime Analysis Unit.

Suspect MO Bulletins

The Special MO Bulletin (SMOB) contains information on known or suspected criminal offenders with: a photo of the subject, crime specialty, aliases, past arrests, addresses, criminal associates, vehicles, requests for field contact information, etc. The information contained in the SMOB is received from individual officers, arrest reports, offense reports, supplemental reports, field contacts, etc. This information will be entered into a computerized file by crime analysis personnel. This file will employ extensive search parameters to accommodate various types of inquiry and correlation to identified MO patterns.

Weekly Crime Summary

The weekly crime summary issued by the Crime Analysis Unit will represent the publication of analyzed information for a one-week period. It will contain information on increases or decreases in crime rate when compared to the previous week or the same week of the previous year, graphs, statistical breakdowns, general crime trends and problem areas, and other crime information. This will be computer generated.

Crime Pattern Identification Bulletins (CPI)

The content of the CPI is based on the analysis of reported crimes by reference to specific crimes, locations, times and suspects; it will be both comprehensive and provide either directive or suggested patrol strategies, and it will also identify the problem pattern and leave the solution to the recipients. These reports will be based on the computer analysis of input data, which may be either routine entry or special analysis requests.

Investigative Lead Correlation Report (ILCR)

Essentially, the ILCR will be a report to an individual investigative unit that a particular case or body of cases exhibits similarities to other reported offenses or available suspect MO information. This information may be transmitted by the crime analysis section routinely as case correlations are observed, or it may be the result of a request by an individual investigator actively seeking any correlations.

Monthly Analysis Section Report

The monthly crime analysis section report contains information for administrative review and evaluation of the section activity and effectiveness. This may take the form of general activity such as the number of reports or meetings generated; or it may be specific relating to problems identified and solved or specific feedback information received.

The computer will be programmed to provide crime information on a regular printout for analysis. In addition, special analysis requests and file search queries will be conducted by the Crime Analysis Unit online via remote terminal.

By utilizing grid systems and geo-coding methods in conjunction with crime data inputs, computer technology will provide extensive geographical statistical crime analysis. Special crime map requests will facilitate timely geographical analysis for periods of 24 hours, 5 days, 10 days, 30 days, and 90 days. Analysis involving records older than 90 days will be conducted by special request and will require considerably greater turn-around time.

The Crime Analysis Unit will also utilize statistics and probability theory which can also be applied to testing the effectiveness of

various deployment strategies. For example, by employing experimental methodology, such as selecting experimental and control areas, changes in crime patterns can statistically prove that an observed change in reported crimes would occur with less frequency than 1/20 or 1/100 times unless the experimental variable (the specific deployment strategy) had been the determining factor.

It must be accepted that reported crimes or criminal activity will show variations and fluctuations according to several influencing variables. Indeed, one of the most important purposes of a crime analysis operation is to identify changes, such as increases or decreases in any type of body of crime, at the earliest point in time. By utilizing the computer and various analysis techniques, the Crime Analysis Unit will identify patterns and crime changes and make this information available to others. Computer generated geographical analysis by crime type and time of occurrence will be used in identifying temporal fluctuations. Once a crime trend or pattern increase has been identified, a strategy will be formulated in an effort to eliminate or alter the pattern.

The task schedule for this project is presented in Table C-3.

TABLE C-1
Information Flow in Automated Crime Analysis System

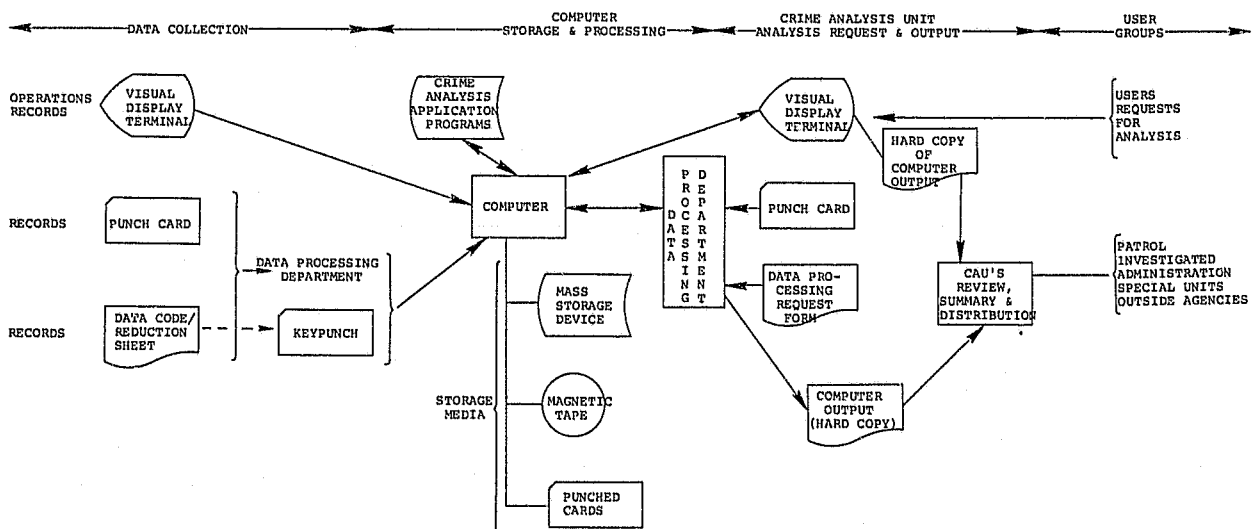


Table C-1 indicates how the automated Crime Analysis Unit will process information.

IV. Evaluation

The evaluation of the Crime Analysis Unit will cover internal and external evaluation.

Internal Evaluation

The internal evaluation of the Crime Analysis Unit will be oriented toward:

- Examining those tasks which the unit is performing
- Identifying users
- Establishing the overall budget requirements for the Crime Analysis Unit, and establishing a cost per unit of work
- Establishing the degree to which the Crime Analysis Unit is satisfying user group needs

Employee daily activity reports, or time cards, will be a prime source of collecting data regarding the internal activity of the Crime Analysis Unit. That is, just what functions or work is actually being performed. Summary reports, charts and graphs will be prepared to illustrate a "time spent/required" breakdown for each of the user groups, and for the specific report types prepared for each user group.

The following will be criteria in looking at activity reports for Crime Analysis Unit employees:

- Time spent for report review (quality control)
- Time spent for filing or record keeping
- Time spent for analyzing data
- Time spent preparing output reports by user group
- Number and type of reports prepared
- Number of correlations made
- Number of new patterns identified

External Evaluation

The external evaluation of the Crime Analysis Unit will be conducted using three measurement methods.

An attempt will be made to evaluate the unit's activity in terms of meeting user needs. In other words, is the Crime Analysis Unit "doing the right things" according to those who are receiving its products. Such a determination can be made by attaching a "control sheet" to all crime analysis reports.

These sheets will then be completed by the report's user and returned. Table C-2 represents a sample which will be used.

In addition, all user requests for information will be recorded to determine increases or trends of user reliance on specific types of information available. When information areas are identified as not being utilized, users will be asked the cause to identify the reasons for the lack of use. Should duplication of information sources be identified, such situations will be rectified by incorporating the sources or by elimination of one of the duplicating sources.

Finally, six months and ten months after the system's operational date, questionnaires will be distributed to all personnel in the user groups. These questionnaires will specifically request evaluation of the information provided by the crime analysis operation and will be structured to quantitatively measure user assessment. An external evaluation component will evaluate the Crime Analysis Unit in terms of impact.

Impact Evaluation

If the concepts herein are correctly applied, the Crime Analysis Unit's work should have an impact on the breaking up of criminal operations. However, to quantitatively measure the degree to which crime analysis information enabled a case to be cleared or an arrest to be made is extremely difficult, but a necessary task.

Therefore, if crime analysis is effective, some resultant change will be realized in the following statistical areas:

1. Crime rates
2. Clearance rates
3. Arrest rates
4. Property loss
5. Property recovery

Impact Evaluation Measurements

1. Arrest Reports

Arrest reports will be modified to provide a checkbox for crime analysis information whereby an officer can indicate if the arrest was based solely or partially on information which was provided by the Crime Analysis Unit. Where possible, reference will also be made to the specific Crime Analysis Unit Report Number.

2. Offense Clearance Reports, Property Recovery Reports, and Crime Classification Change Reports

TABLE C-2
Crime Analysis Control Sheet

<p>No "Use" Response</p> <ul style="list-style-type: none"> <input type="checkbox"/> Information of no value <input type="checkbox"/> Information already known <input type="checkbox"/> Information not needed <input type="checkbox"/> Information did not apply 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Has the information contained within this report been <u>used</u> by you?</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/> No</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> </tr> <tr> <td style="text-align: center;">If no, why?</td> <td style="text-align: center;">If yes, how?</td> </tr> </table>	Has the information contained within this report been <u>used</u> by you?		<input type="checkbox"/> No	<input type="checkbox"/> Yes	If no, why?	If yes, how?
Has the information contained within this report been <u>used</u> by you?							
<input type="checkbox"/> No	<input type="checkbox"/> Yes						
If no, why?	If yes, how?						
<p>Detective User Group</p>	<p>Patrol User Group</p>	<p>Administrative User Group</p>					
<ul style="list-style-type: none"> <input type="checkbox"/> Information identified unknown offense MO pattern <input type="checkbox"/> Information correlated offense MO to known pattern <input type="checkbox"/> Information correlated offense MO to known offender <input type="checkbox"/> Investigative information only <input type="checkbox"/> Information correlated arrestee to offense MO <input type="checkbox"/> Other 	<ul style="list-style-type: none"> <input type="checkbox"/> MO bulletin distribution <input type="checkbox"/> Basis of a special task group assignment <input type="checkbox"/> Establish new patrol practices and/or procedures <input type="checkbox"/> Short-term manpower allocation changes <input type="checkbox"/> Other 	<ul style="list-style-type: none"> <input type="checkbox"/> Strategy development <input type="checkbox"/> Strategy change <input type="checkbox"/> Community relations <input type="checkbox"/> Public relations (news media) <input type="checkbox"/> Other 					

These reports will be modified to provide similar crime analysis information. By having each officer indicate the degree to which crime analysis was responsible for a case being cleared or property being recovered, the program evaluator can begin to evaluate the program's impact in relation to changes in the overall rates.

Another evaluation component will review each goal and the evaluation measurement to see if the Crime Analysis Unit is meeting that goal. The following goals will be evaluated:

Goal I—To identify crime patterns—events having similar characteristics—and supply this information to appropriate units.

Evaluation Measurement:

1. The number of patterns identified
2. Number of apprehensions made
3. Statistics indicating number of cases cleared of selected crimes

Goal II—To provide information for governmental planning agencies relating to security considerations for environmental design of new residential communities and commercial developments.

Evaluation Measurement:

1. The number of reports generated around planning security considerations
2. Identification of the number of planning decisions changed as a result of Crime Analysis Unit analysis
3. Estimated dollar loss saved

Goal III—To develop and implement a program of crime information dissemination and feedback to the uniformed and investigative operations for the purpose of enhancing the detection and apprehension capabilities of those operations.

Evaluation Measurement:

1. The number and type of bulletins and reports prepared
2. The number of apprehensions directly related to Crime Analysis Unit disseminated information
3. The number and type of changes in field deployment patterns
4. Increases in on-view arrests
5. The number of stake-outs resultant of Crime Analysis Unit generated information

The three evaluation components will enable decision makers to assess the effectiveness of the Crime Analysis Unit. To summarize the evaluation, components are:

1. Internal evaluation
2. External impact evaluation
3. Goal achievement evaluation

V. Resources

The resources for the Crime Analysis Unit will revolve around four areas. Namely, organizational placement, staffing, community relations and computerization.

The Crime Analysis Unit will operate out of the Field Operations Division and report directly to the Commander of Field Operations. The Field Operations Division presently consists of all patrol and investigation functions. This placement will provide the necessary administrative resources necessary for a viable Crime Analysis Unit. Also, it provides for a close working relationship with the operational users.

Another important resource will be the staffing of the Crime Analysis Unit. The Crime Analysis Unit will be staffed with representatives from each of the user groups, particularly from patrol and investigation. By so doing, the staff will provide the unit with immediate knowledge of what is "current" in terms of operational problems, present operating procedures and specific needs. If the computer system is to adequately support an analysis unit, that is, give it the capabilities required to "fully automate" the crime analysis function, the unit personnel must become actively involved in the development and implementation phases of computer installation. The data elements and analysis techniques that are applicable to crime analysis must be delineated for the department; and steps must be taken to assure that proper data elements and techniques are available to the analysis section. Also, the Crime Analysis Unit will be staffed with an analyst who has a background in computer applications. This person will provide technical expertise in the programming and ongoing upgrading of the operation. He will also be expected to provide some expertise in statistical applications within the system.

The Crime Analysis Unit will utilize the city owned computer. This is a duplexed system providing 24-hour a day, seven day a week operation. The police department cur-

rently utilizes this system for the storage of numerous types of police records, including the recording of all crime reports. The department has on-line capabilities to the city computer via three existing remote CRT terminals; these are utilized mostly for data entry and file updating. Various security and privacy safeguards are already employed within the system. The crime analysis unit will require an additional CRT terminal with hard copy capability. Several of the files to be implemented will only be accessible through the crime analysis terminal; this is a security and privacy consideration intended

for the known offender and MO files, the field contact file, the pawned property alphabetic file, and the known suspect vehicle file. The crime analysis terminal will also be capable of accessing the existing crime report and alphabetic index file in unique and specific ways, by alias or moniker, for example.

Prior to developing software programs to implement the required crime analysis files various packaged applications will be examined for suitability. It is anticipated that not all of the required programs will be necessarily developed by the department.

TABLE C-3

Timetable for Organization and Implementation of Automated Crime Analysis Unit Project

<u>Timetable</u>	<u>Tasks By Time and Activity</u>												
	Task	Months											
	0	1	2	3	4	5	6	7	8	9	10	11	12
<u>Phase I</u>													
A. Organization of Project		—x											
B. Evaluate existing computer applications		—	—	—	—	x							
C. Recruit Personnel		—	—	—	—	x							
D. Training of Personnel			x	—	—	—	—	x					
E. Develop Plans				x	—	—	—	—	x				
F. Develop Computer Component Program					x	—	—	—	—	x			
<u>Phase II</u>													
A. Implement Programs							x	—	—	—	—	—	x
B. Progress Review							x	x			x	x	
C. Operational Program Assessment							x	—	—	—	—	—	x
D. Project Evaluation		x	—	—	—	—	—	—	—	—	—	—	x
E. Quarterly Report						*				*			--x
F. Final Report													---x

*Quarterly reports will be published in the 4th and 8th months.

APPENDIX D.

CRIME ANALYSIS UNIT STAFF JOB DESCRIPTIONS

POLICE DEPARTMENT POSITION DESCRIPTION:

SECTION SUPERVISOR, CRIME ANALYSIS SECTION

CIVIL SERVICE CLASS TITLE: Sergeant of Police

DIVISION, SECTION OR UNIT: Field Operations Services Section, Crime Analysis Unit

HOURS ASSIGNED: 40 Hrs. per Week

IMMEDIATE SUPERVISOR: Captain of Police

NUMBER OF SUBORDINATES SUPERVISED: Five

SUMMARY:

A SERGEANT OF POLICE assigned to the Crime Analysis Section organizes and directs the activities of the Unit, maintains liaison with line units and outside agencies, and maintains the efficiency and discipline of his subordinates. He conducts and directs appraisal and analytical activities and publishes various periodic and special reports describing criminal activity and persons believed responsible. The position differs from other supervisory positions in that activities performed are of a staff nature and depend on effective liaison to achieve their objectives. The Sergeant reviews, edits and approves the production of the Unit, and participates in crime review meetings to present current criminal data to other units. The Sergeant confers with supervisors in field divisions in order to exchange information regarding offenses and suspects. The Sergeant is supervised by the Field Operations Commander. The position requires supervisory ability, ability to maintain effective liaison, and the ability to analyze and present a variety of criminal data to all levels of the Department.

DUTIES AND RESPONSIBILITIES:

60% 1. SUPERVISION

a. Directs, coordinates and assists in the preparation of crime data derived from crime reports submitted by field units and other sources. Directs the gathering, tabulation, analysis and dissemination of information relating to criminal personalities and activities in the city. Reviews daily and periodic crime summaries and bulletins prepared by the Unit.

20% 2. STAFF DUTIES

a. Analyzes, reviews and evaluates assembled crime data and prepares conclusions and recommendations based on this data for publication and/or for review by command personnel.

b. Prepares narrative portions of periodic crime summaries and other reports.

20% 3. LIAISON ACTIVITIES

a. Maintains close coordination with all field divisions in order to expeditiously disseminate crime information of value to beat officers.

b. Carries out liaison activities with outside agency personnel in order to exchange crime information which includes more than one jurisdiction.

POLICE DEPARTMENT POSITION DESCRIPTION:

CRIME ANALYSIS OFFICER

CIVIL SERVICE CLASS TITLE: Patrolman
DIVISION, SECTION OR UNIT: Field Operations Services Section, Crime Analysis Unit

HOURS ASSIGNED: 40 Hrs. per Week

IMMEDIATE SUPERVISOR: Sergeant of Police

NUMBER OF SUBORDINATES SUPERVISED: None

SUMMARY:

A Patrolman assigned as a Crime Analysis Officer gathers information pertaining to crime from line divisions, and in turn supplies derived information to these divisions in the form of crime pattern recapitulations, suspect and associates lists, field contact logs, areas or buildings having a high crime potential, and the like. The position differs from others in the Division in that primary

emphasis is placed on daily appraisal and evaluation of crime patterns and trends.

The officer reviews all crime reports submitted by line divisions and extracts modus operandi and other pertinent information. He reviews various reports, *including* field contact reports, and attempts to relate offenses and suspects. The Crime Analysis Officer prepares and disseminates daily special bulletins containing summaries of crimes occurring during the past day and any other information of value to field officers. He prepares a Weekly Crime Summary which reports preliminary statistical data for the period. The officer is supervised by the Sergeant in Charge, Crime Analysis Section; the position requires a sound knowledge of police operations, excellent analytical ability, and ability to maintain effective working relationships with field units.

DUTIES AND RESPONSIBILITIES:

100% 1. STAFF DUTIES

a. Analysis and dissemination of Crime Data.

1. Receives, sorts and reviews reports of Part I crimes submitted by line divisions; verifies proper crime and classification descriptions and prepares a synopsis of the crime.

2. Maintains recap sheets listing each type of crime, modus operandi information, and any subsequent arrests.

3. Prepares and disseminates listings by police beat of all Part I or other crimes of interest occurring in the past 24-hour period.

4. Submits offense evaluation reports to criminal investigators whenever offenses have a similar modus operandi.

b. Special Publications

1. By appraisal and evaluation of reported and derived data, prepares special bulletins containing information describing a particular series of related crimes, possible responsibilities, potential times, and locations of occurrences, method of operation, and the like.

2. Through study and analysis of residence of known offenders and their movements throughout the city, prepares reports which serve to alert field officers to their methods and to

provide other crime prevention information.

c. Field Contact Report Information

1. Receives, sorts, and reviews field contact reports for possible connections to offenses, to note associates of the person interrogated, and to extract other information which may be of value.

2. Provides requested information from field contacts, reports to other units of the Department and to outside law enforcement agencies.

d. Maintenance of Crime and Offender Maps

1. Maintains pin maps on which offenses in the categories of burglary, robbery, car clout and burglary, auto accessory and auto theft are indicated. Maps reflecting total crime and special problems undergoing study are also maintained.

POLICE DEPARTMENT POSITION DESCRIPTION:

DEPARTMENT POSITION CODE NO.

CLERK TYPIST II

CAREER SERVICE AUTHORITY CLASS

TITLE: Clerk Typist II

DIVISION, SECTION OR UNIT: Field Operations Services Section

HOURS ASSIGNED: 40 Hrs. per Week

IMMEDIATE SUPERVISOR: Sergeant of Police

NUMBER OF SUBORDINATES: None

SUMMARY:

A Clerk Typist II assigned to the Crime Analysis Section, Research & Development Bureau files field contact and crime offense reports, types crime analysis bulletins and recap sheets, and answers telephone inquiries, giving information to outside agencies and other units of the Police Department. The Clerk Typist is supervised by a Sergeant and receives instructions from the Crime Analysis Section officers regarding specific daily duties. The Clerk Typist is guided by departmental rules, regulations, orders, and established procedures for this position.

DUTIES AND RESPONSIBILITIES:

35% 1. TYPING DUTIES

a. Offense Information

1. Types offense information on Daily Recap Sheets from crime reports.

2. Types Daily Criminal Offense Listing onto stencil.

3. Runs stencils through mimeograph machine, and Ditto Masters through Ditto machine, and distributes copies to other officers.

4. Types Special Crime Analysis Bulletins or stencils.

5. Types Weekly Crime Summary in Planning and Research Division.

b. Types letters, memoranda, etc. at direction of Unit Supervisor.

25% 2. FILING DUTIES

a. Field Contact Report Processing

1. Files Field Contact Reports daily.

2. Refiles such reports removed from the file by Department personnel.

3. Maintains Known Auto Theft files, including typing, alphabetizing and placing pink "catch cards" in the Field Contact File.

20% 3. INFORMATION SERVICE

a. Answers general telephone calls from outside agencies and interdepartmental offices.

b. Checks Field Contact File for outside agencies and other Department units upon request.

c. Checks crime reports and gives information to other units upon request.

20% 4. MISCELLANEOUS ASSIGNMENTS

a. Alphabetizes, checks, and files intelligence stop cards in Field Contact File.

b. Assists Unit Supervisor on special projects.

c. Orders supplies and maintains control over supply cabinet.

APPENDIX E.

THE ROLE OF REGIONAL AND STATEWIDE CRIME ANALYSIS SYSTEMS

VERY FEW crime analysis operations exist on a regional or statewide basis. One of the more established operations is the Crime Pattern Analysis Section of the California Department of Justice. It is used by local police departments as a service agency that provides investigative assistance by identifying suspects by crime modus operandi. Its main service to communities is informing a department that a particular crime they have reported has similar characteristics to a crime reported by another agency. These agencies must then take the initiative to make contact with one another to compare information.

We know that criminals do not confine their activities to a single jurisdiction. Consequently, there is a need to develop information resources with surrounding communities to assist a department's crime analysis operations. An awareness of what is happening in surrounding communities may assist in identifying a pattern that exists in one city and may spread into neighboring communities. Usually, the existence of information cooperation exists between departments at the investigative level. A detective from one department may make contact with and receive information from a neighboring department concerning a specific case or crime pattern.

There are limitations to the effectiveness of this kind of agreement. Unfortunately, the provincialism of local law enforcement agencies makes it difficult for a single agency to establish a centralized crime analysis service for a number of departments. The suspicion that one agency is analyzing crime for their own benefit and not for others would interfere with an effective crime analysis operation.

Statewide Crime Analysis

State crime analysis operations have limited utility due to the vast area to cover and the large number of agencies to service. A state crime analysis operation cannot perform crime analysis in the same manner or provide the same types of services as a local law enforcement crime analysis operation. Even if a state employs some form of crime analysis operation, it cannot replace the need for local crime analysis operations.

The state crime analysis operations should supply additional services to local law enforcement agencies which will aid their own operations. State operations, similar to that of California, can provide services for local units of government, such as the ability to search state criminal identification records, establish criminal modus operandi matches, and identify statewide patterns such as burglary gangs and statewide forgery patterns. The state can also provide assistance in coordinating various local crime analysis operations. This provides a central repository for crime analysis reports, establishes standards in offense reporting, and creates a liaison with state investigative agencies.

It is important to remember that state crime analysis operations cannot take the place of nor should they compete with local crime analysis operations. State crime analysis operations should be viewed as a supplement to local crime analysis efforts.

Regional Crime Analysis

Crime analysis at the regional level has more applicability to formal crime analysis operations since crime patterns have a tendency to overlap from one jurisdiction to another. However, difficulties for regional crime analysis operations are similar to those of the state in that they are confronted with multiplicity of reporting procedures and practices, varying degrees of sophistication in conducting preliminary and followup investigations, and varying degrees of experience in using crime analysis.

Centralized Crime Analysis Model. The centralized crime analysis operation has the operation and responsibility housed in a single agency. This model has the advantage of maximizing the availability of resources and eliminating the duplication of efforts. A

disadvantage of this type of system is that the location of a centralized crime analysis unit in one agency causes suspicion and mistrust in other agencies. It is often difficult to establish the lines of communication necessary for an effective crime analysis operation.

The best placement of a centralized crime analysis operation is in the department which has overall jurisdiction. This can be a county police office, sheriff's office or metropolitan police department. There is acceptance by the majority of police departments for this arrangement. The placement of such an operation in a major police department has to overcome existing biases of smaller agencies against the department, particularly when it comes to telling them how to allocate their field forces. The establishment of a board of directors (advisory board) alleviates some of these problems. This board should be comprised of users of the crime analysis system and must be given the responsibility and authority to lay out policies, establish priorities, and direct sanctions against misusers of the system.

Cooperative Crime Analysis Model. A second model is sharing information between neighboring communities. While this may be acceptable, it has many drawbacks including difficulty in obtaining reports in a consistent and routine manner, lack of an extensive

data base on which to develop analysis, varying degrees of interest by participating agencies, and difficulty to place responsibility. The most effective use of this model is for those agencies which have crime analysis operations to develop an informal organization allowing them to circulate information regarding patterns and criminal activity on a routine and specialized basis. In this manner, one department assumes the responsibility of coordinator for the various analysis reports. This procedure provides one central contact point for obtaining information regarding any specific crime problem in the area. The effectiveness of this operation is contingent on the interest and resources available at the point of coordination. It is essential that the coordination agency has a formal crime analysis operation.

A modification of this model applies to those jurisdictions where a number of small communities surround a large city. The large city can arrange for smaller communities to make extra copies of selected crime reports to be forwarded to the larger department's crime analysis operation. These reports are handled just like the city's reports. Analysis (pin maps and other aids) is expanded to include the smaller jurisdictions. The smaller jurisdictions receive the benefits of the analysis through various bulletins and other dissemination mechanisms prepared by the crime analysis operations.

GLOSSARY

Aggravated Assault—the unlawful attack by one or more persons upon another for the purpose of inflicting great bodily harm usually accompanied by the use of a weapon. Severe injury need not result.

Analysis—the breaking up of data into elements and factors for comparison, collation, correlation, and assembly in a logical manner to form patterns and meaning not previously discernable.

Analysis Unit (or Analysis Section)—a phrase used in this text to refer to the personnel and equipment organized to perform the analysis function within any law enforcement agency or group of agencies.

Apprehension—the capture or arrest of a criminal perpetrator during or after the commission of a criminal offense.

Burglary—the unlawful entry of a structure to commit any theft or felony offense.

Close Patrol—the patrol/surveillance of an area or building that is a short term directed response to a citizen complaint or request.

Collation—the process of putting in a proper order the extracted data elements and factors for comparison and correlation analysis.

Comparison—the examination of extracted data elements and factors to determine similarities or differences.

Coordination—the process by which divergent groups of differently functioning units are brought together to form a harmonious relationship for common action.

Correlation—the determination of relationships between extracted informational elements.

Crime Pattern—a number of criminal offenses displaying a variable number of similarities.

Crime Trend—a change or deviation from the norm as to either volume of reported crimes or types of criminal activity.

Data—collected and assembled information available for analysis.

Data Capture—the process of gathering information.

Data Element—an informational component which can be extracted from the collected data.

Data Purge Criteria—the basis for removing data from the files.

Data Source—the informational contributors generating and providing data.

Extraction—the removal of pieces of information from their original context.

Field Contact Information—information derived from review and examination of field contact reports written by any non-analysis personnel.

Informational Factors—any conditional variable that is usually recorded when available in reporting all criminal offenses or specific crime types.

Intelligence (Hard)—information which has been verified as to validity and reliability, and can be used to establish reasonable or probable cause.

Intelligence (Soft)—information, not usually recorded, of questionable validity and reliability.

MO—the combination of informational factors and element components which separate one crime type from another and define the perpetrator's method of operation for a particular crime or group of similar crimes of the same type.

Prevention—the process by which a crime is kept from happening as a result of an influence not directly associated with law enforcement activity.

Rape—the carnal knowledge of a female through the use of force or threat of force.

Robbery—the theft of property or a thing of value committed in the presence of the victim; accomplished by the use of force or threat of force.

Screening Reports—a report of the results of the interviewing of a suspect.

Strong Armed Robbery—any robbery in which no weapon was used or implied.

Suppression—the process by which a crime is kept from happening as a result of directed law enforcement activity.

Suspect Debriefing—the process of interviewing a suspect to determine cause, motivation, attractiveness, etc. of crime incident.

Tabulation—the systematic listing of details or contents in an orderly arrangement.

Theft (Larceny)—the unlawful taking or stealing of property or articles of value without the use of force, violence, or fraud.

Thefts from Persons—the taking or stealing of property or articles of value from the victim's person without the use of superior force or infliction of bodily injury.

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