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AN ANALYSIS OF THE INVESTIGATIVE PROCESS IN THE
ORANGE COUNTY SHERIFF'S DEPARTMENT

A THESIS

Presented to the Department of Criminology
California State College at Long Beach

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

By Roger Lee Hoxmeier

June 1971

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ABSTRACT

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While science and the scientific approach to problem solving have found ready acceptance in police circles in areas that are either easily identifiable, such as record keeping methods, or that become targets of public pressure, such as community relations or enforcement techniques, the subjection of the police investigative process to evaluative research is long overdue. Police investigation of criminal acts is a critical element in the American system of justice, since it provides the prime determining factor in separating formal accusation from mere suspicion. Further, it is the means by which judicial evidence is gathered, and it is upon such evidence that guilt or innocence is decided. Such a critical phenomenon warrants understanding, yet little is known on the process as a whole or on the countless peripheral influences that shape it.

Investigation is presently viewed by most police authors and administrators as a series of related but separate tasks. These separate tasks or activities are viewed in terms of the

employee rather than the process. The process is thus viewed as starting where the employee enters the picture and ending when he ceases his involvement. As an alternative to such a disjointed view, this study was undertaken with a basic premise that the parameters of the investigation process are the instance of initial police awareness of a crime at the start of the process and the ultimate termination of investigative effort at the stopping of the process.

Operating on this premise, the study used certain evaluative research tools to obtain data with which to analyze the investigation process in a medium-sized police department.

One of the research instruments used was a case sheet. The case sheet followed a crime report through the system from the time of initial police awareness that a crime was committed to the time at which the case was brought to a conclusion. Entries regarding worker classification, type of activity performed, amount of time spent in that activity, and final disposition of the case was noted on the case sheet. These instruments were retrieved out of the system for case ejection pattern evaluation and a time analysis of the process.

An additional instrument, the ratio delay, was used to identify, through a statistically valid number of observations, any measurable phenomena in any detective tasks that do not contribute to the conclusion of a case in the investigation process.

The scientific approach to examining the investigative

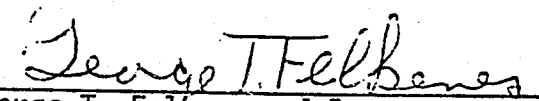
process offers a more significant control mechanism rather than depending on the previously used accuracy and precision of an individual or group's opinion or estimate of an investigation program's effectiveness.

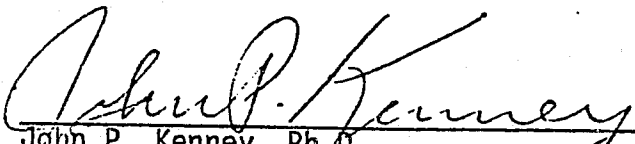
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PREFACE

This study was conducted in the interests of the ever-increasing need and demand for improved efficiency in the police field. The specific objective of this study is to analyze the investigative process in the Orange County Sheriff's Department through the use of a research design developed by graduate students in the Department of Criminology at California State College at Long Beach.

A pilot study validating the research instruments was conducted in the Garden Grove Police Department in the spring of 1970 by George P. Tielsch, now Chief of Police, Seattle, Washington. The approach used offers a strengthened and more significant control mechanism for the police manager than depending on the previously used accuracy and precision of an individual or group's opinion or estimate of an investigation program's effectiveness.

This project was conducted under the auspices of the National Institute of Law Enforcement and Criminal Justice created by the Omnibus Crime Control and Safe Streets Act of 1968 (Project Number N170-056-P.61).

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CHAPTER I

OVERVIEW

One of the major functions of any police department is the apprehension of law breakers. Many such law breakers are apprehended while engaged in their criminal acts while others are identified and prosecuted only after a subsequent investigation. The concept of criminal investigation is a key element of our democratic system of justice for it identifies not only those who are believed responsible for criminal acts but also establishes the innocence of others who may have been suspected. Investigation is also the means whereby judicial evidence is obtained and upon which rests the guilt or innocence of accused persons. Whether or not justice is truly served, therefore, rests upon the competency and integrity of the criminal investigation that precedes it.¹

In attempting to understand such a critical phenomenon, one's first thought is to peruse the literature. Such a search reveals a dramatic absence of any serious attempt to theorize the investigative process or understand its many facets or the countless peripheral influences that shape it. Present day literature abounds with the mechanics of police investigation but has not

¹George P. Tielsch, "A Research Design for the Study of the Investigation Process in the Medium-Size Police Department" (unpublished thesis, California State College at Long Beach, 1970), p. 1.

delled below the surface to find out "what's really happening."

If one desires a technical approach or a short course in how-to-do-it, then sufficient material exists. Certainly there are some excellent texts dealing with structural administrative problems relating to an operations approach; however, definitive, analytical literature dealing with the investigation process and all of its manifestations is sorely lacking.

Presently, all police authors view the investigation phenomenon in organizational terms and define it structurally.² Most writings on the subject focus either on the practical techniques utilized by the investigator or the investigation operation as a unit to be analyzed in that context. As a result, the investigation function is conceived as a series of related but separate activities and not as a single continuing process. Thus, an investigation is started and stopped by a patrol officer; related tasks to the same investigation are started and stopped by clerical and other divisional workers, and the investigation is finally restarted and stopped by detectives. Essentially, the present conceptualization of the investigation process is focused on the employee rather than the task. Such a compartmentalized way of looking at investigation prevents, as an example, any patrol division manager from learning what effect, if any, an increase in the number of cases under investigation or a change

²Ibid.

in clearance rates of those cases means to his unit. Conversely, what exactly does a case represent to the investigation division manager? Exactly what it represents is actually unknown until it is viewed from the dimension of the process it follows, the policies that affect it, and the detectives' role in that process.

An Alternative View

In an attempt to gain a more realistic picture, investigation should be viewed as a continuing process with the starting and stopping as but segments in that continuing process. Once investigation is conceptualized in terms of a process, one can then identify parameters that bracket the process. A basic premise of this paper is that these parameters are the instance of initial police awareness of a crime as the start of the process and the ultimate termination of investigative effort as the stopping of that process.³

An hypothesis which was proven in an earlier paper by George P. Tielsch is that the investigation process is identifiable and subject to analysis and time measurement. Chief Tielsch, along with other graduate students in the Department of Criminology at California State College at Long Beach, developed a research design that studies and evaluates the complete investigation process from initial investigation by a field officer to

³Ibid., p. 12.

completion by detectives in medium-sized departments. The design was tested in the Garden Grove Police Department in the spring of 1970 and found to be valid. Additional studies in other medium-sized police departments followed in order to strengthen and further document the process concept. The Orange County Sheriff's Department was chosen as one of the departments studied because it fit well within the small-to-medium-sized department range and because its organization and procedures were familiar to the researcher. It is the purpose of this paper to present the results of such a study conducted in the Orange County Sheriff's Department in the fall of 1970 through the use of the research design mentioned earlier and reproduced in the following material.

Definition of Terms

The following terms are used throughout the study in conformity with the listed definitions.

Case ejection. Case ejection shows the pattern by which cases are ejected from the system as cleared, closed, or inactive for selected offenses under effort time span.

Case sheet. This sheet determines the time spent in different tasks so that the investigation process can be identified and measured.

Clearance rate. The percent of crimes known to police which the police report as having been solved is referred to as the clearance rate.

Flow chart. This chart identifies the investigative process in terms of tasks and procedures.

Investigation. Investigation involves a systematic inquiry of criminal offenses reported to the police. Following are the three primary objectives of investigation:

1. To identify the person or persons who committed the criminal act
2. To recover any loss to the victim of the crime
3. To discover the facts of the case within the constraints of legal requirements so as to provide the basis for a successful prosecution of the person who committed the criminal act.

Investigative process. The investigative process involves crime investigation viewed in the context of the tasks related to the investigation; it does not concern itself with the worker who performs the task.

Ratio delay. A statistical sampling technique was employed to determine the proportion of delays or other classifications of activity present in the total investigative cycle.

Methodology

This study involved the use of research instruments such as the case sheet which followed the crime report through the system from the time of initial police awareness that a crime had

occurred to the time when the case was brought to a conclusion. Entries regarding working classification, type of activity performed, amount of time spent in that activity, and final disposition of the case were noted on the case sheet. It was later retrieved out of the system for a time analysis of the process.

The case sheet first came into play when a field officer was dispatched to a crime scene in response to a citizen's request. The officer made his preliminary investigation, wrote and/or dictated the report over the telephone, and then marked on the case sheet the amount of time, in minute increments, he had spent on various activities. At the end of his tour of duty, the case sheet was left with the watch commander.

After making appropriate entries, the watch commander attached the case sheet to the original copy of the report and forwarded it to the records division. Additional entries were made on the case sheet by clerical personnel as it passed through the records division. The case sheet was then attached to the duplicated copies of the original report and forwarded to the investigation division. After completion of the administrative phase of the investigation, the case sheet was received by the investigator assigned to the case.

The investigator made an entry on the case sheet whenever he performed any work on the case. When a disposition on the case was made, the type of disposition (such as cleared, closed,

or inactivated) was noted, and the case sheet was submitted to the investigative sergeant from whom it was retrieved by the researcher for analysis. The case sheet, then, depicted the total time and incremental time devoted to various activities for a specific case. By combining all the case sheets used in this study, it was possible to estimate the average effort for the various types of cases investigated.

An additional instrument, the ratio delay study, was used to identify through a statistically valid number of observations any measurable phenomena in any detective task that did not contribute to the conclusion of a case in the investigative process.

Through meetings held with investigators, a list of terms was developed which identified the various tasks or work elements that an investigator may expect to perform during a typical work week. While some of these work elements are directly related to effecting a case disposition, others are indirectly related or are in some cases completely irrelevant. The ratio delay study was designed to show the proportionate amount of time in terms of percent an investigator spends performing work tasks that may or may not lead to a disposition of cases assigned to him.

The validity of this approach is supported by the laws of probability. Basically, the laws of probability involve the concept that a small number of chance occurrences tend to follow

the same distribution pattern of a larger number of chance occurrences. Obviously, some activities occur on a daily basis while others, such as range time or training, occur only on a monthly or intermittent basis. This was taken into consideration when analyzing the data and examining the projected investigative picture.

Once the major work elements were defined, they were listed on a work sheet used for recording the observations made during the course of the study. It was then determined that a thirty-day period would be sufficient to cover any day-to-day variation in a typical investigative work scene.

In order that a truly random sample could be made, the daily starting time for each of the thirty days and for each of the investigator work sheets was selected from a table of random numbers. After the first observation of the day, successive observations were made at one-half-hour intervals. All observations were made at the moment the random time indicated.

Initial contact was made with Mr. Robert Sharp, undersheriff, who received the methodological approach and possible output benefits with interest. Subsequent meetings were held with the divisional captains affected by the study. Acceptance of the project was given during the latter part of August 1970. The basic design of the data collection instruments from the Garden Grove pilot study was retained; however, some changes were necessitated to adapt the instruments to the organizational

structure and information flow of the Orange County Sheriff's Department. On the case sheet, for instance, an additional activity of typing was included in order to obtain the records division's work effort by typist clerks. This is a respectable amount of work in most cases due to the telephonic reporting system used in the Orange County Sheriff's Department. In addition, many work elements on the ratio delay study were described differently, and others were added. The sole reason for describing work elements differently involved a matter of semantics. The work element stenocord, for example, was a term used in the Garden Grove experiment. This term is unfamiliar to investigators in the Orange County Sheriff's Department, even though it is identical to the task of dictating. Thus, the element of dictating was substituted for stenocord. Other work elements were added to cover detective functions necessitated by procedural differences between the Garden Grove Police Department and the Sheriff's Department.

Instructions were written and given to all affected employees who worked in the Investigation, Patrol, and Records Division. Briefings were attended by all field patrol officers to explain the purpose of the study and their participation by initiating the case sheet. Investigators were also briefed as to the approach and purpose of the study. Their participation in regards to both the case sheet (Figure 1) and the ratio delay study (Figure 2) was explained. Supervisors in the three affected

divisions were met with individually, since it was felt that their participation and assistance was of critical importance to the study as a quality and continuity control.

In order to input as many case sheets into the system as possible, the Sheriff's Department agreed to operationalize the study for thirty days. During any time segment, certain crimes occur more frequently than others. During a thirty-day period, then, it would be expected that there would be more thefts than murders. Obviously, certain crimes may occur so infrequently that an insufficient number of case sheets could be retrieved for any valid analysis. Since seasonal trends, and even unaccounted-for trends, in crimes, occur that would increase the number of case sheets, the field officers were instructed to initiate a case sheet every time a crime report was written. Thus, instead of making a limiting decision prior to the study, the author was able to have at his disposal data on all crimes. Once the total number of case sheets for any one crime was determined, decisions were made as to the sufficiency of case sheets for analysis.

Because certain investigative functions, such as vice, intelligence, and narcotics, do not conform to classic investigative procedure, these cases were excluded from the study with one exception. Those narcotic offenses involving arrests by field patrol officers were examined; follow-up investigation is little different for these arrests than for any other arrest by

field officers.

Expected Results

Since the case sheet measured the average amount of time spent by various workers on tasks necessary to conclude a case, the end results showed the average investigative minutes per case and individual investigative effort for selected offenses. A police administrator can use such information for manpower allocation and work-load distribution. For example, if it is shown that for the crime of petty theft the average time spent is sixty minutes per case and the patrol division performs 80 percent of the investigative effort while the investigation division performs 20 percent, then it would appear that a projected increase of one hundred cases per month would mean a twenty-hour increase in detective man hours while the patrol man hours would be increased by eighty hours per month.

There has always been a great deal of argument about what a caseload for a detective really means. The complexity of some cases, for example, has a great deal to do with the degree of investigative effort--with whether fifty cases a month of armed robbery necessitates more or less investigative effort than the same number of petty theft cases. Thus, to compare the caseload of a homicide investigator with that of a burglary or theft investigator is somewhat like comparing apples and oranges. The case sheet provides for such a comparison (for investigative

effectiveness) through the use of time as a common denominator. For example, when it is shown that Crime A requires two hundred minutes of investigative time while Crime B requires fifty minutes, then it becomes clear that Investigator A (investigating twenty-five cases of Crime A) has twice the work of Investigator B (investigating fifty cases of Crime B) even though he has half the caseload.

Results of the ratio delay will provide the administrator with a view of the actual percent of time investigators spend in direct pursuit of investigational goals. If apprehension of offenders and the recovery of property is of prime importance, the discovery that, for instance, only 50 percent of their time is actually spent on case investigation would cause one to examine either the working habits of the investigators or the non-goal-oriented duties allowed or directed by that division.

Finally, the case ejection pattern displays the point (by time span) that cases are ejected from the system. Such information leads to the understanding of the effectiveness of the investigation process when viewed in terms of procedures and intra-organizational relations.

CASE SHEET

CRIME _____ DR # _____

Title of Worker	Number of Minutes Spent	Activity										Other	Location					Other	Initials of Worker
		Interview	Scene Inspection	Interrogation	Writing	Reading	Dictating	Traveling	Xerox	Typing (Clerk)			Field	Office	By Telephone	D.A.	Court		

FIGURE 1
CASE SHEET

RATIO DELAY STUDY

ACTIVITY		
1. CHECK EMERGENCY TELETYPES		
2. DISCUSS CASE WITH SUPERVISOR		
3. TELEPHONE TIME		
4. CHECK F1 CARDS & 24 HR DAILY LOG		
5. REVIEW CASES		
6. DISCUSS CASE WITH OTHER INVESTIGATORS		
7. PULL CASE FROM FILES OR RECORDS		
8. SENDING TELETYPES		
9. CONTACT VICTIM OR WITNESS IN FIELD		
10. LOG IN NEW CASES		
11. DICTATE OR WRITE REPORTS		
12. PREPARE CASE FOR COURT PRESENTATION		
13. CONFER WITH DA FOR COMPLAINTS		
14. PROOFREAD REPORTS		
15. TESTIFY IN COURT		
16. READ OTHER AGENCY BULLETINS		
17. DISCUSS CASE WITH ID OR CRIME LAB		
18. CONTACT INFORMANT IN FIELD		
19. CRIME SCENE INSPECTION		
20. ARRESTING SUSPECT		
21. OBTAIN MUGS FROM FILES		
22. CORRESPONDENCE		
23. OFFICE INTERVIEW OR INTERROGATION		
24. OBTAINING WARRANTS		
25. IN-CUSTODY-DISPOSITION FORMS		
26. DRIVING		
27. SPECIAL ASSIGNMENTS		
28. MISCELLANEOUS		

FIGURE 2
RATIO DELAY STUDY

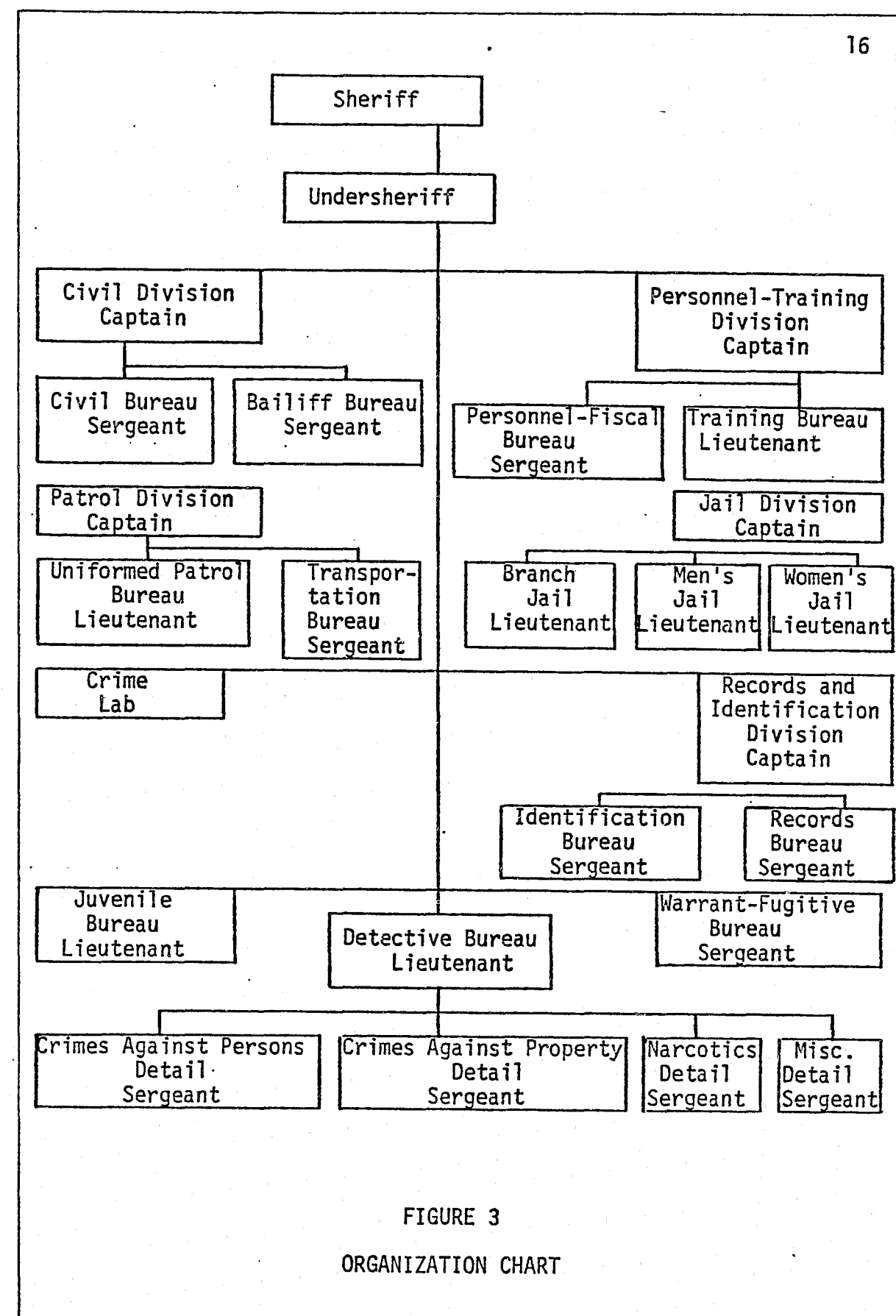
CHAPTER II

THE SETTING

The Orange County Sheriff's Department was chosen as one of the departments examined in the analysis of the investigative process as it fit well in the small to medium sized department group. As a sheriff's department, it has certain other functions, such as custodial and civil, which are not normally a function of a police department; however, aside from these specific areas, it is charged with the same responsibilities and operates in the criminal justice system not unlike any police department. At the time of this study, the Orange County Sheriff's Department "policed" a population of approximately 160,000 in the unincorporated area of the county and through contract an additional 20,000 in the incorporated cities of Yorba Linda, Villa Park, and San Juan Capistrano. The department is staffed by approximately 400 sworn and 150 non-sworn personnel.

The structural organization of the department is in the mode of a classical pyramid. Six divisional captains report to the undersheriff who in turn is responsible to the sheriff. Each of the divisions is comprised of two to three bureaus, some of which are headed by lieutenants and other sergeants.

The general policies of the department are brief, concise, and relevant to a law enforcement agency's position in today's



world. Officers are charged with specified responsibilities while the course of action taken is left to their good judgment and discretion. A well-managed department will have few policies, and those that are written will be but broad guidelines within which a wide range of decisions can be placed. Title 1, Section 11.01.2, of the policy manual states in part " . . . the actual steps to be taken in any given situation are left to the good judgment and discretion, abilities, initiative and resourcefulness of the individual deputy."¹ Such a policy certainly allows for a wide range of decision-making by deputies. Other policies which are excellent in terms of a philosophic approach to law enforcement are Sections 11.02.2 and 11.10.1 which state in part: "Every officer must understand that his primary function is to preserve the peace and to prevent violations, not to arrest people," and " . . . persons arrested by Sheriff's deputies for misdemeanor offenses or as a result of an arrest by private person be cited and released upon their written promise to appear"² The jail as a last resort approach offers a much needed change from other days and other geographically located departments' "bust'm and book'm" routine.

Procedures pertaining to the reporting and investigation of crimes are found in a procedural manual no longer wholly

¹Orange County Sheriff's Department, "Manual of Rules and Regulations" (unpublished departmental manual, 1970).

²Ibid.

pertinent and in a maze of interoffice memoranda and divisional directives. The procedural manual in possession of each of the patrol deputies bears little resemblance to the manual located in the administrative sergeant's office which is crammed full of divisional directives, exceptions and changes to procedure. Aside from the dire need for a general updating of all outstanding procedural manuals and the relative difficulty an outsider would have in determining when and when not, how and to whom, members of the department seem to operate relatively at ease within the system.

If there is any one overall policy-procedure relating to the reporting of crimes and other matters, it is that the sheriff's department will answer all calls for service regardless of their nature. If a citizen is concerned, a unit is ordinarily dispatched to make a written record of his concern. In essence, any time a deputy is dispatched to a location for some type of service, a dispositional report number is assigned, and a report is written.

The reporting system used in the Orange County Sheriff's Department is unique in design and purpose. In 1966 three endless reel recorders were purchased by the department for the development of a telephonic reporting system. This system enables an officer in the field (or office) to call the department via telephone, whereupon the centrex phone operator switches him to a recorder. The report is then dictated on a tape from which a record's bureau clerk types the original copy of the report.

After review by the patrol watch commander, the original is Xeroxed, and copies are forwarded to appropriate divisions. The telephonic reporting system was originally designed to speed the flow of crime reports from the field officer to the detective and to reduce the number of reports physically written by field deputies. When working at optimum efficiency, the field officer no longer needs to spend time handwriting reports or typing them when returning to the office before going off duty. Each recorder holds up to one hundred minutes of dictation time and is so constructed as to allow a clerk to type a report from the tape even while the field officer is dictating it or another report on the recorder.

The telephonic reporting system is not used when a criminal call is unfounded by the field officer or when the call for service is a non-criminal incident. In these cases, reports are handwritten in a brief concise narrative style and handed to the watch commander upon going off duty. These reports are then forwarded to a records bureau pending basket for the perusal of the detective bureau lieutenant or investigation division captain on the following morning. If further action is deemed necessary, the handwritten report is typed by a records bureau clerk and forwarded to the investigation division for follow-up investigation. If no further action is needed, they are filed as an original report.

In 1965, as a result of the right-to-discovery decisions,

the narrative style of report writing was abandoned in favor of a discovery style of report writing. The right to discovery philosophy of California law is based primarily on the case of *People versus Riser* (47Cal2D 566) in which the court stated that the state has no interest in denying the accused access to all evidence that can throw light on issues in the case. In narrative report writing (where all statements of suspects, witnesses, victims, and officers are included in a running, chronological account of the facts in the case), it was found that a defense attorney who requested statements of the accused or of a witness was obtaining as an added benefit, so to speak, the entire report. The initial defense against such complete access to the prosecution's case was the cutting out of the report with a pair of scissors, only those statements determined discoverable. In lieu of such primitive methods of limiting access to the defense, the District Attorney's Office requested a statement synopsis style of report writing. As a result discovery report writing was created. In this report writing method, the statement of each witness is written on a separate interview of witness form, the statement of each victim on a separate interview of victim form, etc. The theory being that when the discovery motion is granted for access to statements of certain witnesses, those statements and no others will be given to the defense. In other words, there was no further need for the deputy district attorney to carry a pair of scissors. A recent

change in the discovery report writing procedure allows narrative reports to be written on all burglaries having a loss of less than fifty dollars and on all misdemeanors with no suspects.

Further comments pertaining to the effect of the discovery style of report writing on the investigative process may be found in Chapter IV.

CHAPTER III

DATA COLLECTION INSTRUMENTS

Once the methodological approach to the study was conceptualized and basic data collection instruments were designed, it was necessary to view their application in terms of the procedural mechanics of information flow through the system. The establishment of a procedural flow chart is one of the initial steps in the analysis of the investigative process. The flow chart provides a reference base for the application of the case sheet and ratio delay study as well as the case ejection pattern phenomenon.

Flow Chart

For the most part, police action evolves from citizens placing a phone call to relate a crime. Initial contact with the police (sheriff) is, then, with the department's centrex phone operator. The centrex operator receives all incoming phone calls not dialed directly to divisional, bureau, or desk phones within the department. Direct numbers are known to other governmental agencies and persons connected with a case already under investigation. Most calls requesting an officer are received, then, by the centrex operator. She transfers all general police (sheriff) requests to the desk officer. Those calls of an emergency nature are transferred on a special line to the desk officer.

The desk officer becomes involved in one of two ways:

(1) through the centrex operator, or (2) face-to-face requests from citizens who walk in. Requests for police service are screened by the desk officer for a determination of dispatching or not dispatching a police unit. No record is made of those calls on which no dispatch is made. These are few, however, since the policy is that regardless of the inconsequential nature of the request, a patrol unit will be dispatched if the citizen is concerned.

Dispatched calls are first noted by writing pertinent information on a yellow incident dispatch card (pre-punched and pre-numbered with dispositional report numbers IBM cards). These are given to the dispatcher via conveyor belt.

The incident dispatch card is used by the dispatcher, and additional information is written on the card. Green IBM-type cards are used by the dispatcher to record such activities as transportation assignments, security checks, car stops, pedestrian stops, maintenance, eating, out of service, and report writing.

Once the call has been handled by the field officer, the dispatcher forwards the incident dispatch card to the records bureau.

Records

Once the records bureau has received the incident dispatch cards, a records clerk types a twenty-four-hour patrol activity log

by chronological sequence from the incident dispatch cards. The cards are then used as a control to insure reports are received for each of the dispositional report numbers issued to a field unit. (During this time the field officer is handling the assignment and telephoning his report to the endless-reel tape recorder in the records bureau.)

The original typed copy which has been transcribed from the recorder is given to the patrol watch commander for review.

Once approved, the original is Xeroxed for distribution to the investigation division and other concerned agencies. The matching incident dispatch card is then attached to the original report and forwarded to statistics.

Clerks in the statistics section of the records bureau punch code the yellow incident dispatch card with the information written on it by the desk officer and dispatcher.

The cards are then filed by dispositional report number for data processing. Statistical information is taken from the original crime report and transferred to other IBM punch cards (crime report and research card, and an arrest report and research card) for data processing. The original crime report is also used for logging; where 3 x 5 cards are made on all persons connected with the crime (suspect, victim, witness, etc.). The master name index is checked so that persons already having such cards will merely have them updated.

Data processing generates such reports as:

1. Statistical Report to CII
2. Sheriff's Department Statistical Report
3. Crime Occurrence by Geographical Area and Density for Parts I, II and III.
4. Peak Crime Period for Day of Week, Hour, etc.

Dispositional Report Flow

The dispositional report (DR) is initially assigned when a unit is dispatched to a call or when a unit requests one from the field. Information regarding the assignment is recorded on the incident dispatch (IBM) cards which have prenumbered DR's. The cards, once forwarded to the records bureau, are placed in a control file to be attached to the original once it has been transcribed from the recorder, reviewed by the watch commander, and duplicated.

The original is given to the watch commander for review, and he then returns it to records. It is again proofread for clerical accuracy by a records clerk supervisor and then duplicated. The number of copies Xeroxed depends on the nature of the case. The face sheet of all criminal reports and certain other non-criminal reports are sent to the news room. Other copies will be forwarded to contract cities and concerned agencies. The remaining copies are forwarded to the investigation division. The original is then matched with the incident dispatch card, processed through statistics, and filed in the records file.

Investigation

All incoming DR's are perused by the investigation division

captain or lieutenant and assigned to the appropriate detail by placing them in baskets marked, "Crimes Against Persons," "Crimes Against Property," "Juvenile," "Narcotics," or "Miscellaneous Detail." The flow for the property detail will show the same pattern as the other details except for narcotics.

The detail sergeant picks up his reports from the captain's office. He reads and logs the reports in his master control log and assigns them to an investigator.

Each investigator reads and logs his cases (some do not keep a log) for follow-up and individual accounting. When the assigned cases have been investigated, the completed reports are either called via telephone to a records bureau recorder, handwritten or rough typed, and given to a steno-pool secretary or dictated to a clerk typist from the steno pool.

Once the reports are typed, one copy is forwarded to the records DR file and two additional copies are returned to the detail sergeant. He uses one copy to maintain his master log and gives the other copy to the investigator.

Case Sheet

Through the use of the case sheet, the time spent working on different tasks within the process can be identified and measured. As a report travels through the system, man-work-time increments are recorded on this instrument. The hierarchical level of the involved employee is also noted on the case sheet.

The case sheet first comes into play when a field officer is dispatched to a crime scene in response to a request by a citizen. The officer makes his preliminary investigation and writes and/or dictates the report via telephone. During this time he marks on the case sheet the amount of time, in minute increments, he has spent on various activities. At the end of his tour of duty the case sheet is left with the watch commander.

After making appropriate entries, the watch commander attaches the case sheet to the original copy of the report and forwards it to the records division. Additional entries are made on the case sheet by clerical personnel as it passes through the records division. The case sheet is then attached to the duplicated copies of the original report and forwarded to the investigation division. After completion of the administrative phase of the investigation, the case sheet is ultimately received by the investigator assigned to the case.

The investigator makes an entry on the case sheet whenever he performs any work on the case. When a disposition on the case is made, the type of disposition (such as cleared, closed, or inactivated) is noted, and the case sheet is submitted to the investigative sergeant from whom it is retrieved by the researcher for analysis. The case sheet, then, depicts the total time and incremental time devoted to various activities for a specific case. By combining this case sheet with many others, it is possible to estimate the average effort for the various types of

cases investigated.

Ratio Delay

If the casual observer were asked what investigators do, he would most surely reply, "Investigate!" Most assuredly, investigators do investigate. A closer examination, however, may reveal that they do other things as well. It is both the investigative chores and the "other things" that the ratio delay study is designed to illustrate.

During the course of any work day, investigators perform any number of tasks that may or may not be relevant to the solution of assigned cases. In order to measure the capacity of the investigator a ratio delay or work sampling was used to extract a percentage breakdown of the amount of a work day devoted to any one task.

Through meetings held with investigators, a list of terms was developed which identified the various tasks or work elements that an investigator may expect to perform during a typical work week. While some of these work elements are directly related to effecting a disposition on a case, others are indirectly related or in some cases completely irrelevant. The ratio delay study is designed to show the proportionate amount of time in terms of percent an investigator spends performing work tasks that may or may not lead to a disposition of cases assigned to him. Such data, properly analyzed, can shed a good deal of light on the heretofore

idolatrous caseload and clearance as well as general investigative effectiveness in relation to departmental objectives.

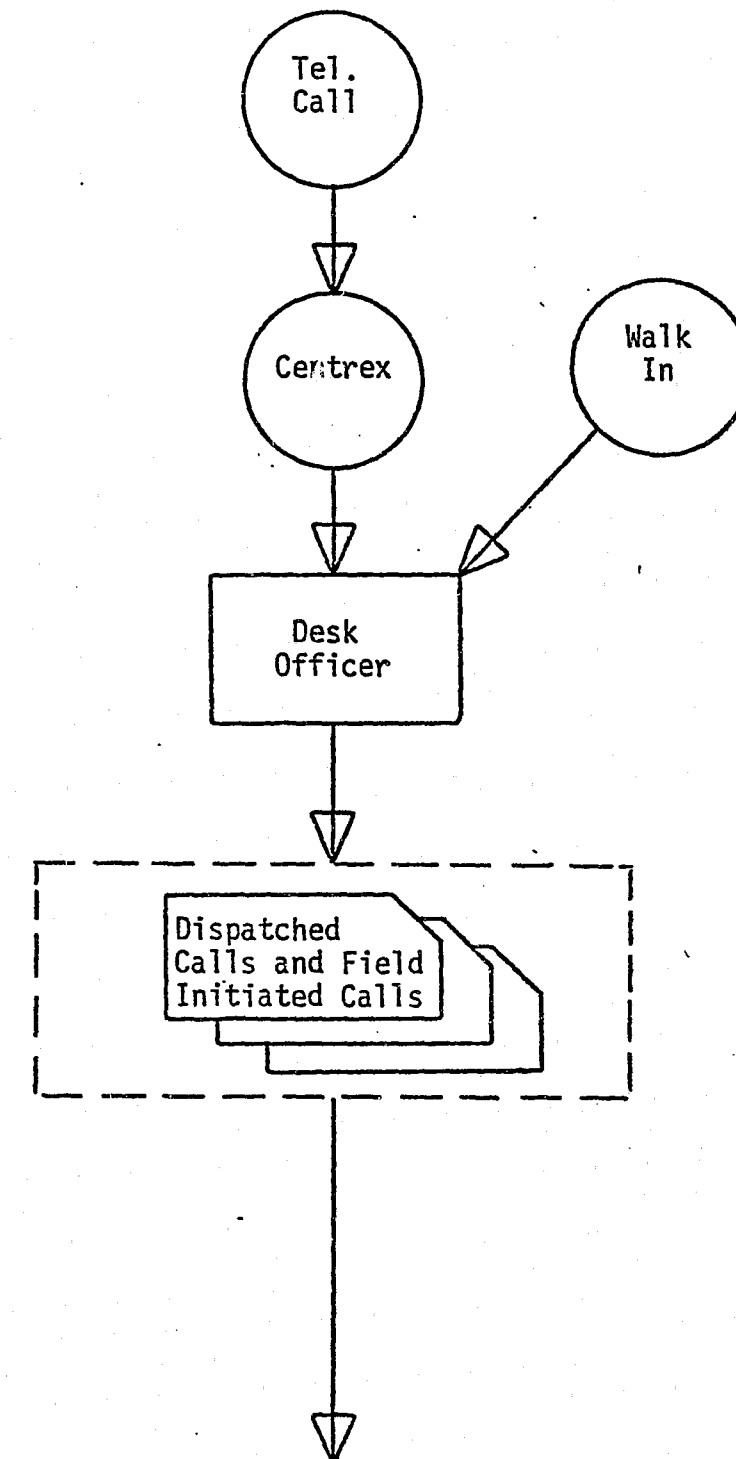
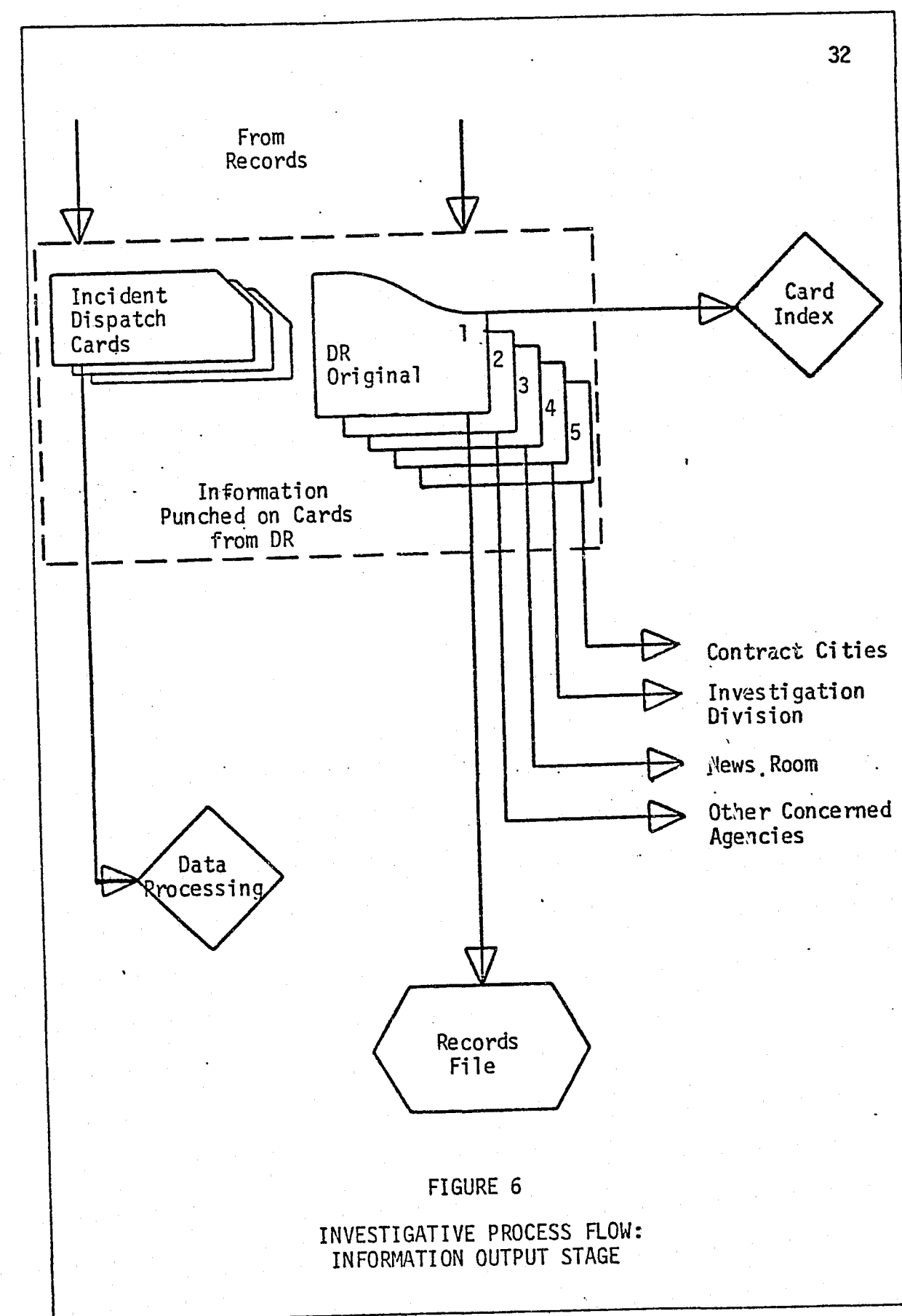
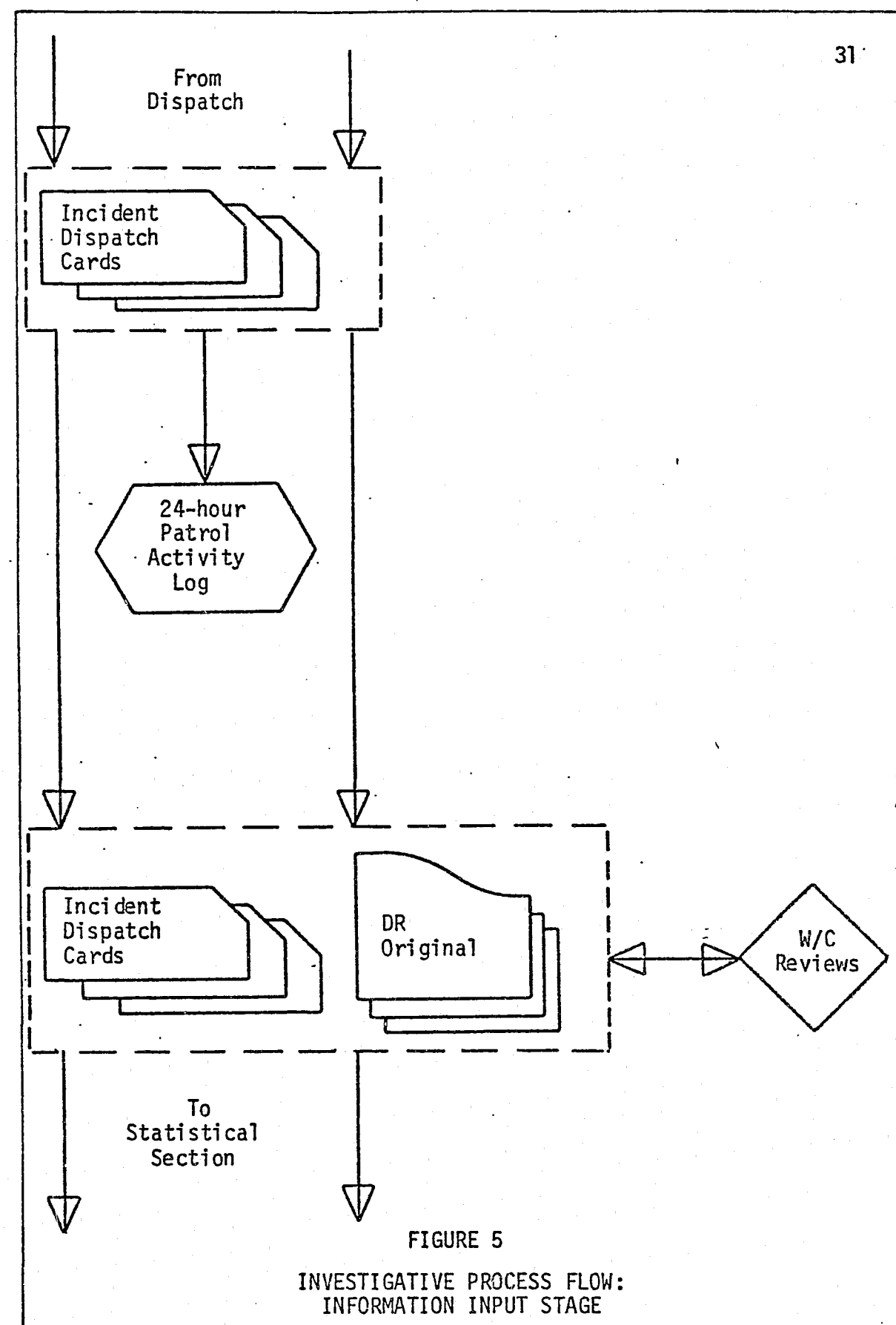


FIGURE 4
INVESTIGATIVE PROCESS FLOW:
REQUEST FOR SERVICE STAGE



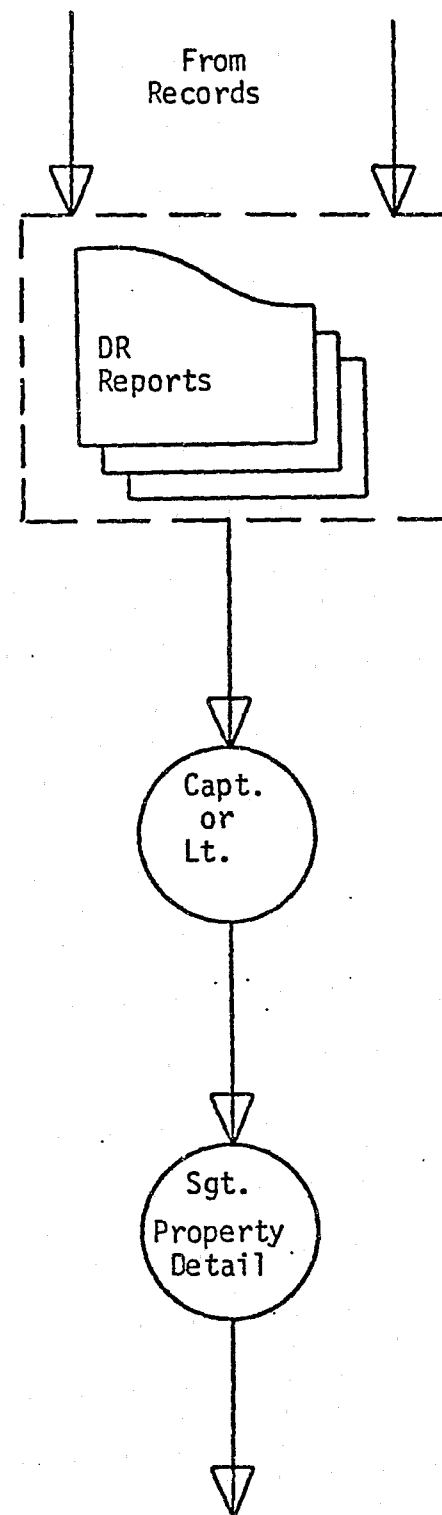


FIGURE 7

INVESTIGATIVE PROCESS FLOW:
DETECTIVE INPUT STAGE

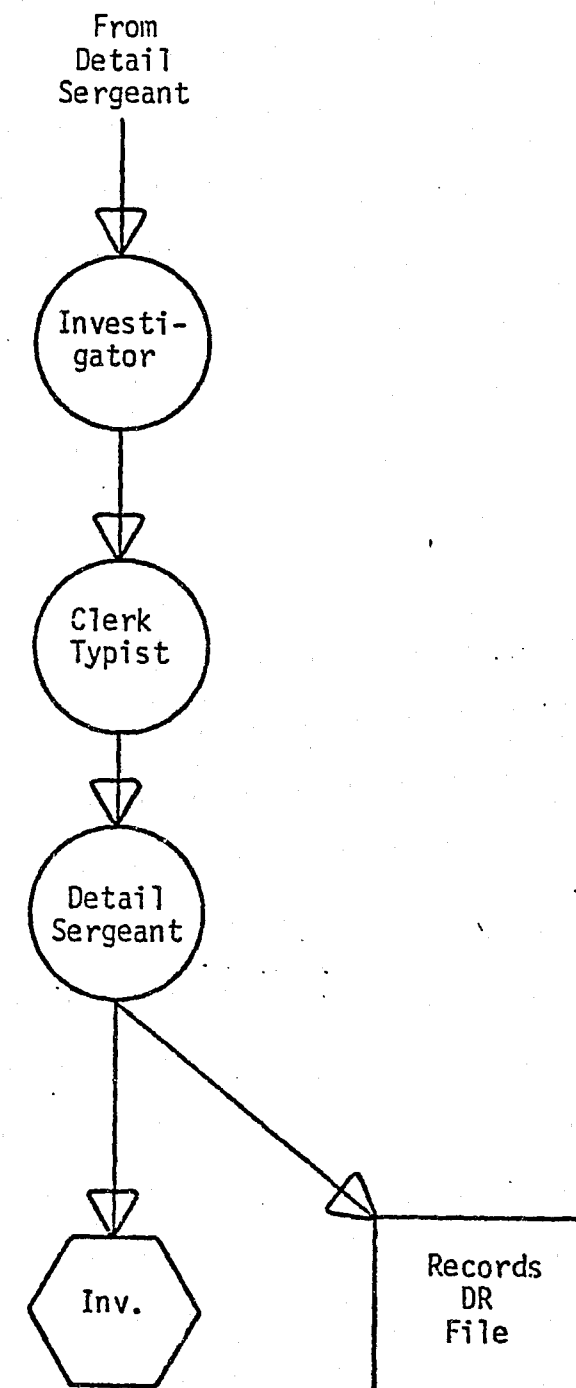


FIGURE 8

INVESTIGATIVE PROCESS FLOW:
DETECTIVE OUTPUT STAGE

CHAPTER IV

DATA GATHERING AND ANALYSIS

In order to obtain a sufficient amount of data from which valid conclusions could be drawn, it was necessary to operationalize the study for a period of time long enough to obtain a maximum number of case sheets out of the system. Taking into consideration the number of reported crimes during a similar period the previous year and the number of case sheets that would be lost in the system due to error or other unknown factors, it was decided that a thirty-day period would produce a generous data sample. The field officers were instructed to initiate a case sheet every time a crime report was written. Once the total number of case sheets for any one crime was determined, decisions were made as to the sufficiency of case sheets for analysis.

The data collected during the course of the study was tabulated and placed in tables in order to view the investigative process in the Orange County Sheriff's Department from a number of different aspects. Although the results of this study are somewhat similar to those obtained in the pilot study conducted in the Garden Grove Police Department, it by no means follows that all other medium-sized police departments can expect identical figures. Wide variations in study data from other departments can be expected. What does follow is that such variations may be accountable to

either administratively sound or unsound practices that may be detected during the analysis of the data or accountable to substantive policy decisions.

During the study time span from September 2, 1970 to October 2, 1970, the following cases were isolated and tracked through the investigative process:

Commercial Burglary	47
Residential Burglary	179
Auto Burglary	29
Grant Theft	22
Petty Theft	124
Stolen-Recovered Vehicles	31
Stolen Bikes	57
Malicious Mischief	61
Narcotic Arrests	53
Assaults	69
Disturbing the Peace	37
Drunk Arrests	23

Because of the infrequency of certain crimes such as murder or rape, a time span of as much as a year for many small or medium-sized police departments would still provide an insufficient number for meaningful analysis. Such offenses will be analyzed in another phase for large police agencies.

After the input portion of the study ended on October 2, 1970, a sizeable number of case sheets remained in the system and

were not immediately retrievable for analysis. Follow-up investigation on certain crimes continues for a good deal of time; therefore, a retrieval period of sixty days following the end of the actual input was used to allow reasonable follow-up investigation to ensue.

Use of Case Sheet

As Figures 4 through 8 (pages 30 through 34) reflect, the basic process followed in the investigation of reported crimes in the Orange County Sheriff's Department is a process that begins when the victim either telephoned or appeared at the department. Technically, the proper place to initiate the case sheet would have been at the centrex operator or the desk officer who first hears the request for service. Because of the mechanics involved in getting the case sheet into the system's report flow it was necessary for the officer taking the initial crime report to do this.

Observation and worker interview determined that it was possible to estimate the average time devoted to cases by the centrex operator, the desk officer who received the request for service, and the radio dispatcher who notifies the field officer to respond to a location and conduct an initial crime scene investigation.

The field officers were asked to make entries on the case sheet regarding two basic bits of information: what he did (activity) and where he did it (location). The activities listed

on the case sheet described his most common tasks and allowed him to show the time spent on each of these tasks. The location category allowed the officer to indicate with a check mark the location where the activity was performed.

At the end of a tour of duty the case sheet was submitted to the watch commander. The watch commander reads and approves the report and also indicates on the case sheet the time he devoted to the case.

In the Orange County Sheriff's Department, the telephonic reporting system makes it possible to have many of the reports typed, read, and approved by the watch commander before the field deputy ends his tour of duty. Obviously, this makes it impossible for the girl who types the report to make an entry on the case sheet. This necessitated creating a small form with spaces for DR number and typing time. Copies of this form were left by the recorders during the study so that the clerk who typed the report from the recorder would make her entries on this form and give it along with the original copy of the report to the watch commander. He would then make an entry on the case sheet for the clerk typist.

The report was forwarded, with the case sheet, to the records bureau where a clerk duplicated the appropriate number of copies and forwarded the original report and matching incident dispatch card to the statistics section. The case sheet was then forwarded along with the investigation copies of the report to the investigation division.

Depending upon the nature of the crime, investigation technicians respond to the crime scene to take prints, photograph and collect certain evidence. The mechanics of the process in the Orange County Sheriff's Department precluded the identification technicians from making entries on the case sheet. The author, instead, examined a log maintained by the identification bureau and obtained the time spent by identification technicians on individual crimes. Records bureau personnel made entries (indicating dispositional report number and typing time) on an additional form for any reports submitted by identification technicians.

All incoming reports to the investigation division are assigned by the investigation division captain or detective bureau lieutenant to the appropriate detail. Although now and then a particular report may be scrutinized quite deeply, the vast majority are given merely a glance and thrown into the separate detail basket.

For all detective details except narcotics, the detail sergeant reads the report, logs it in his master control log, and assigns it to an investigator for investigational follow-up and accounting. The detail sergeant makes entries on the case sheet indicating the time spent on these activities. The case sheet and crime report is then given to the investigator.

Once the case was formally assigned for further investigation, the investigator kept the case sheet attached to his reports and indicated the time he spent on each of the various tasks he

performed. When the case was finally disposed of, he then indicated the type of disposition (such as cleared, closed, or inactive) and returned the case sheet to the detail sergeant. The case sheets were retrieved by the author and segregated according to crime. The time data was transferred to a work sheet and totalled. The average case time was then computed for each crime as well as for the individual activities which led to a disposition for that crime.

Case Sheet Analysis

Tables 1 through 4 show the average investigative minutes per case for twelve crimes isolated and tracked through the process. The tables also show the average time spent on various tasks performed by groups of workers as the case travels through the process. If one ranked these crimes in order of total average time devoted to their investigation, the following order would appear: assaults, narcotic arrests, drunk arrests, residential burglaries, commercial burglaries, disturbing the peace, grand theft, stolen-recovered vehicles, auto burglaries, malicious mischief, petty theft, and stolen bicycles.

Assaults rank first in investigative time per case. This category includes both simple and aggravated assaults. Such a large amount of time can be explained in that both victim and suspect are usually known and in many cases additional witnesses are present. This requires a good deal more interview time than,

say, theft cases where suspects are usually unknown. In addition, clearance rates are in the 80 percent area, and this involves time spent obtaining complaints and arresting the suspect.

As a general rule, any crime that has a high arrest rate will also involve more investigative time than other cases with a low arrest rate. This is due to the additional time spent arresting and booking the suspect, waiting for identification or tow truck if the suspect has a vehicle, traveling to and from the jail, marking evidence, writing lengthy reports, and obtaining complaints. It follows then that the narcotic arrests rank high in total average investigative time. Drunk arrests would also then logically rank high; however, one would question why such a straightforward, uncomplicated arrest should involve an average investigative time as high as three and two-thirds hours. The time is primarily due to writing, dictating, and typing reports which takes up approximately 70 percent of the three and two-thirds hours.

All other crimes studied seem to have an acceptable total average investigative time when viewed in terms of complexity and comparison with the total average investigative times of other crimes.

Stolen bicycles were listed apart from petty thefts because they are assigned to a single investigator who works in the juvenile bureau. Table 6 shows that 83 percent of these cases were inactivated after preliminary investigation which for the most part was ten minutes or less work. A total of fifty-seven stolen-bicycle

cases were isolated during the study which means an investigator spends nearly eight hours per month checking and purging the stolen-found bicycle card file and other investigative minutia. Such tasks could be as easily handled by a property clerk with only those cases having suspects actually assigned to the investigator for follow-up investigation. Bicycles previously reported stolen or lost would still be returned to their owners and the juvenile bureau would reap eight additional work hours of a highly paid specialist to devote to more pressing cases.

Table 4 gives a percentage breakdown of the total average investigative time per case for the patrol division, the investigation division, and the subprocess of writing-dictating-typing of reports. One can observe that in eleven out of twelve of the selected offenses the investigative effort of the patrol division far exceeds that of the investigation division. It is felt that the somewhat disproportionate amount of time is explained when one looks at the percent of total investigative time spent in the subprocess of getting the report into the process, since the patrol division completes two segments (writing and dictating) of the subprocess. What is disturbing, however, is the percent of total time used for such a simple task as getting the report to the investigator. In ten out of twelve offenses examined, this subprocess takes one third of the total time devoted to the entire case. Further, in three of these offenses over fifty percent of the total investigative time is devoted to merely "banging out"

Examination of the subprocess shows duplication on the part of the field deputy in that he both writes and dictates his report which is then typed by a records bureau clerk. Such a large percentage of the total time per case devoted to a rather mechanical task appears to be both costly and in direct conflict with the goals of the telephonic reporting system, since it was originally designed to speed the flow of crime reports from the field officer to the detective and to reduce the number of reports physically written by field deputies.

An additional factor which accounts for the large amount of time devoted to writing, dictating, and typing as well as review and reading is the discovery style of report writing. The requirement that each person connected with the case be interviewed on a separate form is cumbersome to the field officer who, as the study indicates, still handwrites his reports prior to dictating them (even though the telephonic reporting system was designed to reduce the amount of reports physically written by the field officer). The time added to field investigation by the duplication of writing prior to dictating is further compounded by the increased number of forms used in discovery reporting.

The question might be raised of whether or not discovery report writing is costly in terms of time in the investigative process; this is immaterial in terms of prosecution of the offender if abandonment of discovery report writing would seriously hamper the district attorney's ability to successfully prosecute the case.

With this proposition in mind, sixty-seven deputy district attorneys were posed two questions on self-addressed stamped postcards. The first question was, "Do you feel that present legal requirements make it necessary to use the discovery report writing system as opposed to a comprehensive narrative report? Yes___No___." The second question was, "Do you feel the discovery report writing system is now convenient and easier to work with than the narrative system? Yes___No___." In response to the first question, three replied yes while twenty-nine replied no. In response to the second question, seven replied yes while twenty-five replied no. Thus, a significant majority indicated that discovery report writing was no longer legally required, nor was it more convenient or easier to work with than the narrative style. In addition, it was learned that almost as a matter of course, the district attorney is allowing full discovery to the defense. Thus, although the sheriff's department retains its policy of withholding reports unless ordered to do so as a result of a discovery motion, the district attorney is allowing the defense full access to their copies of police reports.

Figures 9 and 10 depict the additional number of investigative man hours per month caused by a projected increase of one hundred cases per month. The most glaring fact of these figures is that the additional man hours caused by such an increase affects the patrol division far more than either the crimes against persons or crimes against property details of the investigation division.

The figures were constructed in the following manner: if one takes residential burglary as an example and totals the average number of minutes (from Table I) spent on all tasks completed by the patrol division, a sum of 77.7 minutes or 1.28 man hours per case of residential burglary would be the result. It follows, then, that each additional case of residential burglary would necessitate 1.28 man hours of patrol division work. Thus, a projected increase of one hundred cases per month over present conditions would necessitate 128 man hours of additional patrol division work. The effect such an increase in reported crimes has on the investigation division is arrived at in the same manner.

Since Figures 9 and 10 do not identify individual offenses but rather all crimes handled by the crimes-against-persons or property details, an additional data operation was performed. The average investigative minutes per case for a selected offense handled by the crimes-against-persons detail was multiplied by the number of cases of that offense examined during the study. This product was also determined for all of the other selected offenses handled by the crimes-against-persons detail. The sum of these products was divided by the total number of selected offenses handled by the crimes-against-persons detail during the study to arrive at the average investigative time per case spent by detectives of the crimes-against-persons detail. This same process was used for the crimes-against-property detail and the patrol division.

A more capsulized version of the operations performed on the data may be shown in a five-step process:

- | | | | |
|----------------|---|---|---|
| <u>Step 1:</u> | Average investigative minutes per case for all tasks completed by the investigation division for a selected offense--from Table I | X | Number of cases of that offense handled by crimes-against-persons detail during the study |
|
 | | | |
| <u>Step 2:</u> | Complete Step 1 for each offense handled by the crimes-against-persons detail. | | |
| <u>Step 3:</u> | Add the numbers obtained from Step 2. | | |
| <u>Step 4:</u> | Divide the number obtained in Step 3 by the total number of selected offenses handled by the crimes-against-persons detail during the study. | | |
| <u>Step 5:</u> | Multiply the number obtained in Step 4 by $\frac{100 \text{ cases}}{60 \text{ minutes}}$ to obtain the additional man hours per month caused by a projected caseload increase of one hundred per month as it affects the crimes-against-persons detail. | | |

The same five steps are used to obtain results for the crimes-against-property detail and the patrol division.

Use of Ratio Delay

During the course of any work day, investigators perform any number of tasks that may or may not be relevant to the solution of assigned cases. In order to measure the capacity of the investigator, a ratio delay or work sampling was used to extract a percentage breakdown of the amount of a work day devoted to any

TABLE I
AVERAGE INVESTIGATIVE MINUTES PER CASE REFERRED TO CRIMES
AGAINST PROPERTY DETAIL

Worker	Task	Comm. Burg.	Res. Burg.	Auto Burg.	Grand Theft	Petty Theft	Stolen- Recv. Vehicle
Centrex/Desk/Disposition Patrol	Process Call	2.0	2.0	2.0	2.0	2.0	2.0
	Interview	17.4	20.6	10.6	21.7	13.2	17.1
	Scene Inspection	9.5	10.2	6.1	5.0	3.7	2.4
	Writing	17.2	13.6	9.0	13.6	10.7	13.0
	Dictating	8.6	10.6	7.4	13.3	8.2	5.2
	Traveling	11.1	12.5	10.2	10.6	11.0	14.0
	Other	3.5	4.8		0.1	1.2	0.3
I.D. Officer	Scene Inspection	43.2	21.0	36.0	0.6	5.4	47.4
	Writing	3.4	3.4	1.4	0.4	1.0	4.8
Patrol Supervisor Records	Review	3.1	3.4	2.6	4.0	2.0	1.4
	Typing	28.8	31.2	23.5	43.8	21.4	10.7
	Statistics	0.4	0.3	0.6	0.6	0.6	1.8
	Xerox	2.2	2.0	1.9	3.1	2.0	1.3
Invest. Supervisor Investigator	Reading and Log	1.4	1.8	1.3	1.2	1.1	1.5
	Reading	1.7	2.6	2.4	3.8	3.0	2.6
	Interview	6.0	12.6	5.6	9.6	6.9	4.2
	Traveling	2.0	5.7	1.2	3.9	1.3	
	Writing	1.3	3.8	3.3	3.5	3.0	2.2
	Dictating	0.2	1.1	1.0	1.5	0.3	0.2
	Scene Inspection		0.3	0.2	1.1	0.4	
	Other		1.4	0.8	2.0	0.8	
	District Attorney		2.1			0.7	
	Total Time Spent	163.0	167.0	127.1	145.4	99.9	132.1

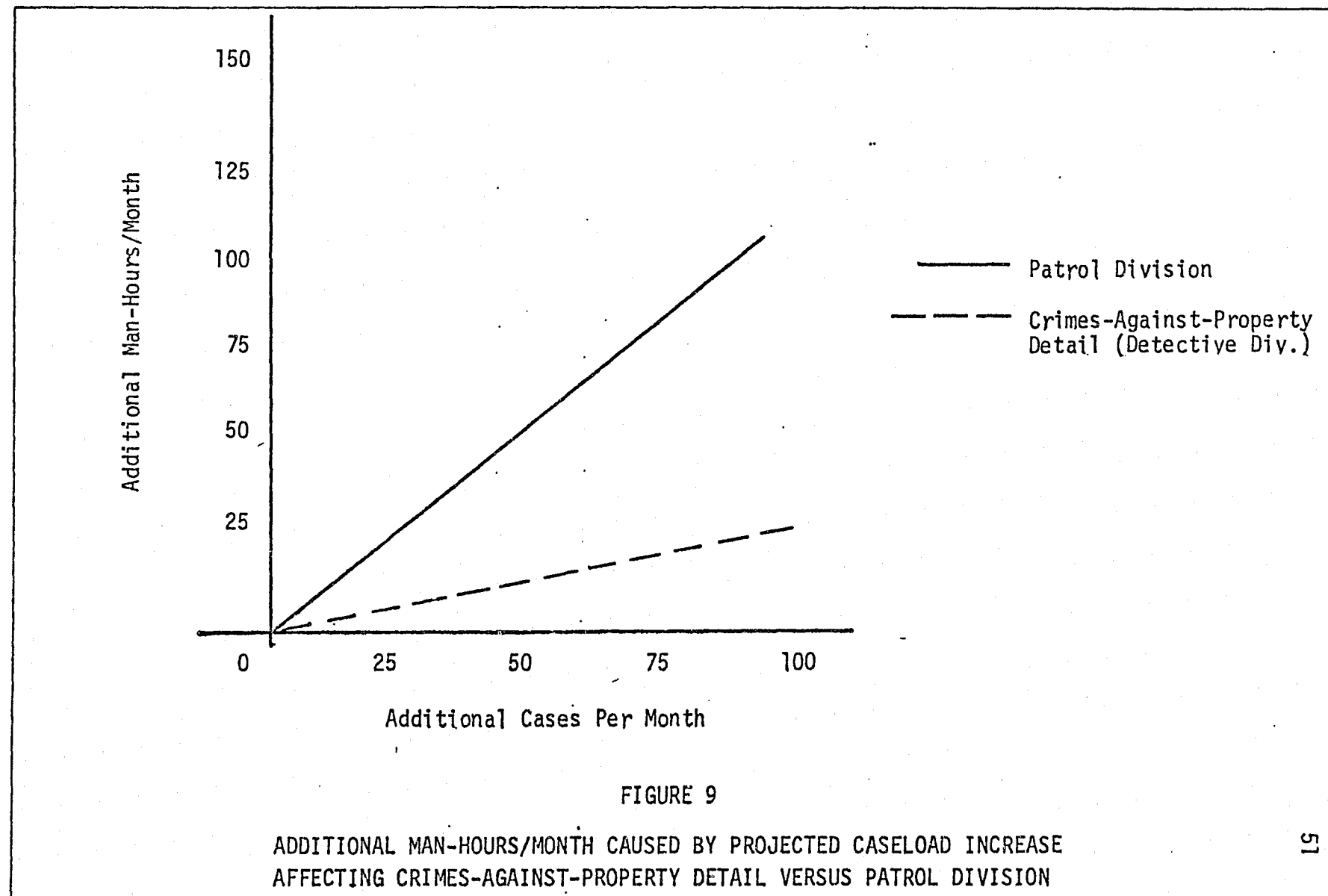
TABLE II
AVERAGE INVESTIGATIVE MINUTES PER CASE
REFERRED TO VARIOUS DETAILS

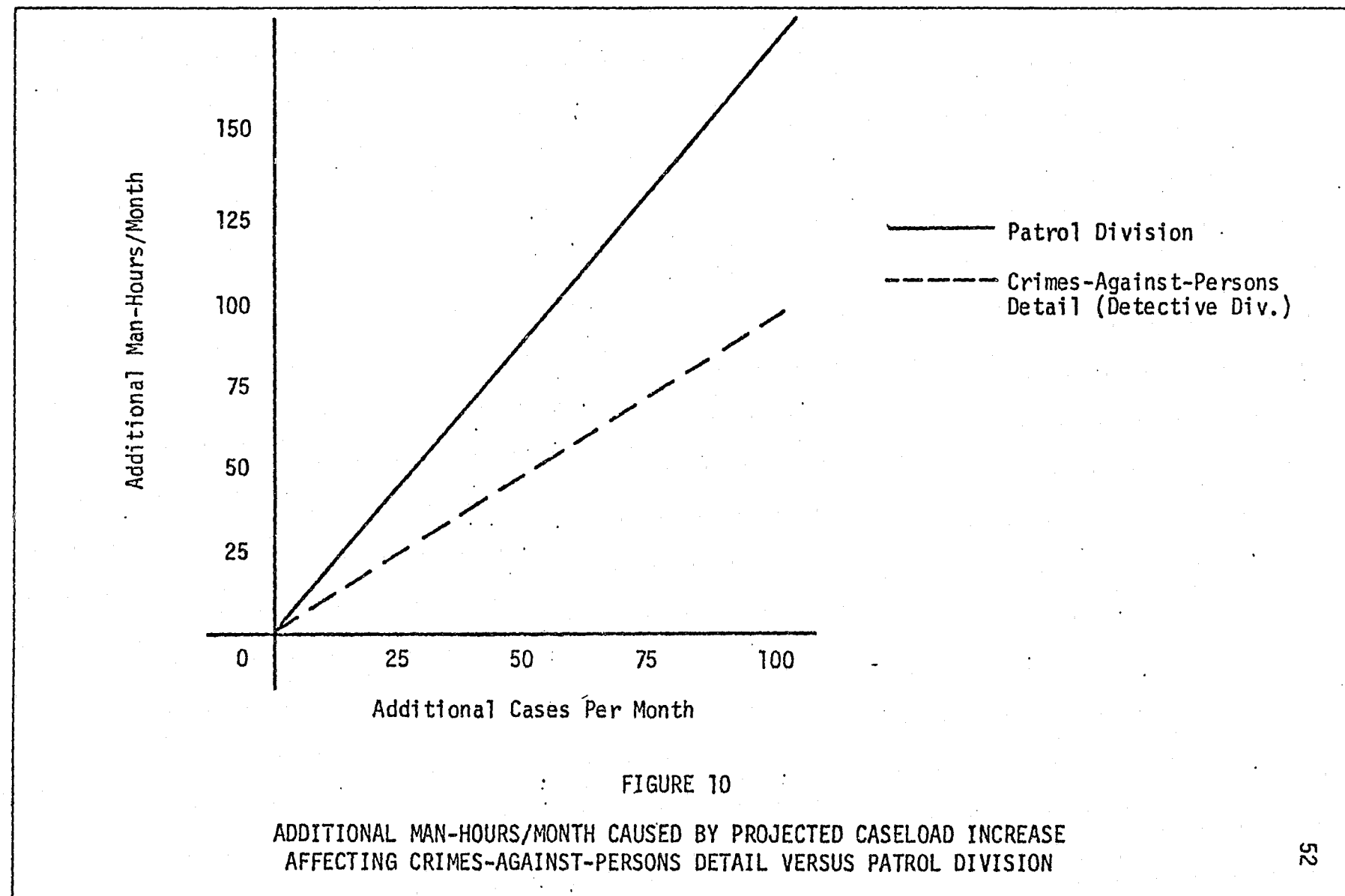
Worker	Task	Stolen Bikes	Mal. Misc.	Narc. Arrests
Centrex/Desk/Disp.	Process Call	2.0	2.0	2.0
Patrol	Interview	12.8	11.6	21.0
	Scene Inspection	2.6	5.4	10.1
	Writing	8.5	7.6	28.6
	Dictating	4.5	7.0	16.6
	Traveling	8.4	10.4	17.0
	Other	1.3		15.2
I.D. Officer	Scene Inspection	2.0	4.2	6.5
	Writing	1.0	1.6	3.6
Patrol Supvr.	Review	1.3	2.0	3.7
Records	Typing	8.8	23.6	44.4
	Statistics	0.7	0.4	0.9
	Xerox	1.0	1.6	2.8
Invest. Supvr.	Reading & Log	1.3	2.6	2.4
Investigator	Reading	1.9	2.4	3.7
	Interview	0.6	17.5	0.6
	Traveling	0.7	9.9	2.7
	Writing	5.0	8.4	24.8
	Dictating	0.4	2.1	1.4
	Scene Inspection		0.7	0.5
	Other	1.4	2.1	9.1
	District Attorney		1.0	10.9
	Total Time Spent	66.2	124.1	228.5

TABLE III
AVERAGE INVESTIGATIVE MINUTES PER CASE REFERRED TO
CRIMES AGAINST PERSONS DETAIL

Worker	Task	Assaults	Distrb. Peace	Drunk Arrests
Centrex/Desk/Disp.	Process Call	2.0	2.0	2.0
Patrol	Interview	41.3	28.2	18.6
	Scene Inspection	8.7	1.5	4.7
	Writing	18.9	20.1	23.7
	Dictating	15.5	9.8	10.8
	Traveling	14.9	11.3	22.5
	Other	3.5	2.2	12.6
I.D. Officer	Scene Inspection	5.4		
	Writing	1.3		
Patrol Supvr.	Review	4.2	2.1	5.5
Records	Typing	49.0	33.0	44.0
	Statistics	0.6	1.7	0.2
	Xerox	2.0	2.0	1.9
Invest. Supvr.	Reading & Log	3.5	2.1	5.1
Investigator	Reading	5.4	5.6	4.2
	Interview	22.5	8.8	6.2
	Traveling	6.2	7.7	1.8
	Writing	8.7	0.9	3.9
	Dictating	2.1		1.8
	Scene Inspection	0.5		0.2
	Other	2.3		37.7
	District Attorney	13.7	9.8	
	Total Time Spent	232.2	148.8	207.4

TABLE IV												
PERCENT OF TOTAL AVERAGE INVESTIGATIVE TIME PER CASE												
	Comm. Burg.	Res. Burg.	Auto Burg.	Grand Theft	Petty Theft	Stolen Auto	Stolen Bikes	Mal. Misc.	Narc. Arrst.	Assault	Distrb. Peace	Drunk
Patrol	42.5	44.5	35.6	45.6	50.0	40.9	60.6	35.5	48.4	45.1	50.5	45.8
Investigation Division	7.7	17.7	12.4	18.3	14.5	8.1	17.1	37.6	24.5	28.0	23.5	29.4
Subprocess of Writing, Dictating, & Typing-- Getting Report Into System	33.5	33.1	31.4	48.6	40.3	21.9	32.9	30.8	39.2	32.0	56.0	68.1





one task.

The validity of this approach is supported by the laws of probability. Basically, the laws of probability say that a smaller number of chance occurrences tend to follow the same distribution pattern that a larger number does. Obviously some activities occur on a daily basis while others, such as range time or training, occur only on a monthly or intermittent basis. This is taken into consideration when analyzing the data and examining the projected investigative picture.

Once the major work elements were defined, they were listed on a work sheet used for recording the observations made during the course of the study. It was then determined that a thirty-day period would be of sufficient length to cover any day-to-day variations in a typical investigative work scene.

A ten percent degree of accuracy was desired in examining the portion of time investigators devote to each activity. In order to obtain such a level of confidence, the number of observations necessary would vary inversely with the size of percentage occurrence of the investigative work element expressed as a decimal. The formula for the number of observations is:

$$N = \frac{4 (1 - P)}{\sigma^2 P}$$

where N = total number of observations

P = % occurrence of investigative work

element expressed as a decimal.

σ = standard error (desired accuracy)
expressed as a decimal.¹

Thus the largest number of observations is needed when the work element being examined is one which occurs least often. For example, phone time estimated at 50 percent:

$$\begin{aligned} N &= \frac{4 (1 - P)}{\sigma^2 P} = \frac{4 (1 - 0.5)}{(0.1)^2 0.5} \\ &= \frac{2.0}{(.01) (0.5)} \\ &= \frac{2.0}{(.005)} = 400 \text{ observations.} \end{aligned}$$

Also, teletype sending time estimated at 10 percent is as follows:

$$\begin{aligned} N &= \frac{4 (1 - P)}{\sigma^2 P} = \frac{4 (1 - 0.1)}{(0.1)^2 (0.1)} \\ &= \frac{4 (0.9)}{(0.1) (0.1)} \\ &= \frac{3.6}{.001} = 3600 \text{ observations.} \end{aligned}$$

A thirty-day study involving thirty-two investigators with fourteen to sixteen observations per day insured more than the necessary number of observations.

¹H. B. Maynard, Industrial Engineering Handbook (2d. ed.; New York: McGraw Hill Book Co., Inc., 1956), p. 386.

In order that a truly random sample could be made, the daily starting time for each of the thirty days and for each of the investigator work sheets was selected from a table of random numbers. After the first observation of the day, successive observations were made at one-half-hour intervals. All observations were made at the moment the random time indicated.

Ratio Delay Analysis

By use of the techniques discussed in Chapters II and III, Table V shows the percent of investigators' time devoted to various tasks. Of prime importance to any administrator is the amount of time actually spent on case investigation, for it is this time which most directly leads to case disposition and the attainment of departmental goals such as apprehension of offenders, recovery of property, and so forth.

As Table V illustrates, the crimes-against-persons detail, the crimes-against-property detail, and the juvenile bureau fall in a close group that expends 60 percent of their time on actual case investigation. The miscellaneous detail lags somewhat behind with 51.5 percent. The investigation division as a unit spends 59 percent of its time on case investigation. What this means, in effect, is that out of any eight-hour day the average investigator can be expected to spend approximately five hours investigating cases assigned to him. Further, he spends one hour involved with other investigative duties and two hours completing

administrative and miscellaneous tasks. A 60 percent work level is somewhat less than what was expected; however, it is certainly acceptable since many of the other investigative duties are related to the cases under investigation and may aid in arriving at their disposition. If one would hedge a little, then, perhaps the investigator would then be spending (according to Table V for the entire division) 76 percent of his time on case investigation. Such a percentage of work effort directed to departmental goals is more than adequate.

If on the other hand, it was found that the percentage of time devoted to case investigation was less than 50 percent, it would appear that a reevaluation of investigative policies and procedures would be in order. One possible cause of such a low percentage is the trend of police departments to be involved in the community. Over-involvement in such activities would tend to increase the administrative and miscellaneous task portion of an investigator's day and subtract from time spent on case investigation.

Use of Case Ejection

Current policies and procedures for the reporting of crimes in the Orange County Sheriff's Department dictate that a report will be written in all instances where a citizen requests an officer for the purpose of reporting what he believes to be a crime. If the field officer determines that a crime did not

TABLE V
DETECTIVE MAN-HOUR BREAKDOWN BY PERCENTAGE OF TIME

Activity	Property	Persons	Juv.	Misc.	Entire Div.
<u>Case Investigation</u>					
Discuss case with I.D.	1.4	1.6	0.5	1.9	1.6
Report Reading	10.5	6.1	5.9	8.4	7.7
Teletype Contact	2.0	3.4	1.8	2.3	2.4
Report Dictation	6.2	8.5	9.9	9.3	8.5
Records Search	2.7	2.3	2.2	2.9	2.5
Telephone Interview	15.7	13.9	14.8	13.0	14.4
Office Interview	3.3	5.2	9.4	2.9	5.2
Field Investigation	18.2	19.9	19.2	10.8	17.0
Subtotal	60.0%	60.9%	63.7%	51.5%	59.3%
<u>Other Investigative Duties</u>					
Check F.I. cards and log	1.0	0.6	0.7	0.3	0.7
Discuss Case with Other Investigators	4.7	6.2	4.4	7.4	5.7
Prepare Case for Court	0.4	1.6	0.5	0.9	0.9
Testify in Court	1.9	0.4		1.7	1.0
Read Other Agency Bulletins	0.7	1.0	1.7	0.8	1.5
Discuss Case with Supervisor	1.2	4.5	2.9	1.8	2.6
Confer with D.A.	1.6	6.6	1.4	5.0	3.7
Arresting Suspect	0.6	0.4	1.0	0.2	0.6
Subtotal	12.1%	21.3%	12.6%	18.1%	16.7%
<u>Administrative and Miscellaneous Tasks</u>					
Maintain Logs	6.9	4.8	6.2	9.2	6.8
Meetings		1.3	0.5	2.7	1.1
Training	1.0	0.1	2.2	2.3	1.4
Process Warrants	0.1	0.4	0.4	0.2	0.3
Administrative Writing	0.1	1.1	0.2	0.4	0.5
Special Assignments	2.5	2.8	2.8	5.4	3.4
Other Non-Invest. Activity	17.3	7.3	7.3	10.2	10.5
Subtotal	27.9%	17.8%	23.7%	30.4%	24.0%
Total Time	100.0%	100.0%	100.0%	100.0%	100.0%

occur, he is allowed to handwrite a brief statement of the facts which lead to his conclusion. These handwritten reports are perused by the investigation division captain or detective bureau lieutenant on the following morning. If further action is deemed necessary the handwritten reports are typed and forwarded to the investigation division for follow-up investigation. If no further action is needed, they are filed as an original report. Thus, crimes unfounded by field officers are ejected from the process at a practical and early stage. All other reported crimes travel through the entire process and are ejected from the process only after reaching the investigator.

Since the unfounding of crimes by the field officer and their subsequent ejection from the process at that point (assuming that the unfounding of the crime by the field officer is a legitimate determination based on all the facts) is already a current procedure that is desirous from an administrative efficiency viewpoint, no attempt was made to learn the percent of total reports that the unfounded reports comprise.

Since all reports of crime (that are initially established by the field officer to actually be crimes) travel through the entire process and are ejected from the process only after reaching the investigator, it was decided to describe the ejection phenomenon in terms of investigator-effort-time-span. Thus, if a crime was cleared, closed, or inactivated by an investigator after five minutes or less of investigative effort, the

report was considered ejected from the process after initial patrol investigation. If the crime report was ejected from the process after five minutes but less than thirty minutes of investigative effort, the report was considered ejected from the process after preliminary detective investigation. Finally, if the report was cleared, closed, or inactivated after an investigative effort exceeding thirty minutes, the report was considered ejected from the process after extensive detective investigation.

Although the investigative-effort-time-span differentials may appear to have been arrived at somewhat arbitrarily, there are certain considerations that more or less self-establish these time frames. For example, if an investigator spends less than five minutes on a case, he barely has time to read and log the report and complete a phone call to the victim. Making a disposition on the case after such a small amount of investigative effort dictates (for all practical purposes) that the case was disposed of after the field officer completed his investigation. The disposition was (because of departmental procedure) merely postponed until the report reached the investigator. The other two effort-time-span ejection points were established with similar considerations in mind.

The pattern displayed by the ejection point from the process may cause the police administrator to change current procedures. For example, if it becomes obvious during the

patrol phase of the investigation that clearing, closing, or inactivating the case is proper, then retaining them in the process for the sole purpose of having the specialist (investigator) take this action would be inefficient.

Case Ejection Pattern Analysis

Table VI shows the percent of cases for each selected offense that are ejected from the process under three effort time spans. By way of review, those cases classed under "Ejected from the Process after Patrol Investigation" showed follow-up investigation of five minutes or less. Those classed under "Ejected from the Process after Preliminary Detective Investigation" showed follow-up investigation of more than five minutes but less than thirty. Those classed under "Ejected from the Process after Extensive Detective Investigation" showed follow-up investigation of thirty minutes or more.

Table VI shows that in nine out of twelve offenses over 75 percent of the cases are cleared, closed, or inactivated after less than thirty minutes of investigative work by the investigator. Moreover, in five of these offenses more than 90 percent of the cases were ejected from the process with less than thirty minutes of investigative work.

Current department procedure dictates that reports of all crimes verified by field officers to actually be crimes reach the desk of an investigator for some investigative work to be performed. It appears significant, however, that more than a substantial

number of these cases are ejected from the process after little or no investigation other than certain mechanical functions such as noting that a crime took place, contacting the victim, and writing a follow-up report inactivating the case. It would appear, then, that certain alterations of procedures which would cause the mechanical functions to be handled by a clerk would free the investigator to concentrate on more serious and complex cases. Copies of these reports should still flow to his desk to allow him to be aware of increased activity in certain areas or of related crimes for a suspect already under investigation.

TABLE VI
CASE EJECTION PATTERN
(SHOWN IN PERCENTAGES)

	Ejected from Process After Patrol Investigation			Ejected from Process After Preliminary Detective Investigation			Ejected from Process After Extensive Detective Investigation		
	CLRD	GLSD	Inact	CLRD	CLSD	Inact	CLRD	CLSD	Inact
Comm. Burglary				4%		90%			6%
Res. Burglary	3%			11%		75%	6%		5%
Auto Burglary						89%			11%
Grand Theft	11%					58%	9%		31%
Petty Theft				10%	1%	79%	6%	1%	3%
Stln./Rec./Vehicle	3%	3%		25%		66%	3%		
Stln. Bicycles	2%	1%		7%	1%	83%	4%	1%	1%
Mal. Mischief	4%			20%		54%	13%		9%
Narc. Arrests	10%			77%			4%		9%
Assaults	11%			50%	2%	8%	25%	2%	2%
Disturbing Peace				56%		11%	25%		8%
Drunk Arrests				100%					

CHAPTER V

SUMMARY AND CONCLUSIONS

This study has attempted to utilize analytical data to evaluate the complete investigation process in the Orange County Sheriff's Department from initial investigation by field deputies to completion by investigators. An initial phase of the study involved the creation of a process flow chart to identify the investigation process by segmentation in terms of tasks and procedures. Data was collected through the use of a case sheet which determined the time spent in different tasks in the investigation process. The status of a reported case was also noted on the case sheet and thus reflected the amount of investigative effort spent on a case prior to its ejection from the system.

A ratio delay study was conducted to determine the measurable phenomena in any detective tasks or other variable factors which did not contribute directly to the investigation of cases.

Since our endeavor has been that of utilizing research data to evaluate the investigation process, certain results analyzed in Chapter IV deserve final comment:

1. The case sheets revealed that in ten out of twelve offenses examined, the field officer's task of getting the report into the system (writing, dictating, and typing) takes one third

of the total time devoted to the case from its inception to its ejection from the process. Further, in three of these offenses over 50 percent of the total investigative time is devoted to merely turning out a report by a field officer. Such a disproportionate amount of time spent on writing, typing, and dictating a report (before any work by a detective is begun), coupled with the Deputy District Attorney's response to the practicality of discovery report writing, would appear to make a case for a termination of discovery report writing.

In lieu of returning to the narrative style of report writing (if departmental administration feels a steadfast need for discovery report writing in terms of investigation: more factual reporting, etc.), an alternative exists which would eliminate the duplication involved in the writing, dictating, and typing subprocess: abandon telephonic reporting and instruct field officers to block print or neatly write their reports. These can be duplicated and used as is. If one feels a need for the business-like appearance of typed reports, procedures could be instituted allowing records bureau clerks to type only those reports on which complaints were obtained and prosecution was to follow. The hand-written report would still be available in the file as the original report. Such a change, over a period of time, would save a good deal of money and ill-spent effort by freeing field officers and records bureau personnel for other more goal-orientated tasks.

2. The ejection pattern displayed during the study showed that in nine out of twelve offenses examined over 75 percent of the cases are cleared, closed, or inactivated after less than thirty minutes investigative work by the investigator. Moreover, in five of these offenses more than 90 percent of the cases were ejected from the process with less than thirty minutes of investigative work. Most case investigation conducted in a time span of less than one-half hour can consist of little more than logging the case, reading the original report, making a phone call to the victim, and writing a follow-up report such as "The victim was contacted but could offer no further information. Until such time as new leads develop, this case will be inactive." Such an investigation is strictly mechanical in nature and does little to accomplish investigative goals. As shown in the ratio delay study, those mechanical functions having to do with the follow-up investigation on all cases merely take away precious time from productive case investigation on more solvable and/or serious offenses. It is recommended, therefore, that these cases be ejected from the process at an earlier point or by personnel other than the investigator.

3. The most interesting aspect of the ratio delay study was the portion of an eight-hour day actually devoted to case investigation. The crimes-against-persons detail, the crimes-against-property detail, and the juvenile bureau fell in a close group that expended sixty percent of their time on actual

case investigation. The miscellaneous detail lagged somewhat behind with 51.5 percent. The investigation division as a unit spent 59 percent of its time on case investigation. A 60 percent work level is somewhat less than what was expected; however, it is certainly acceptable since many of the other investigative duties are related to the cases under investigation and may aid in arriving at their disposition. An elimination of some or all of the administrative and perfunctory tasks presently assigned to detectives would increase a detective's work capacity. A substantial increase in this area could bring clearance rates up, the investigation cost per case down, and result in a far more effective investigation program.

Additional studies in other police departments will ferret out aspects of the investigative process that are peculiar to the individual department but will also provide a general analytical view of the process of police investigation. It is through such effort that police management may eliminate or alter the tasks or subprocesses that appear at odds with organizational goals or are inefficient, for lack of a better word, in themselves. It is also through such effort that the police not only proudly serve, but serve better!

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