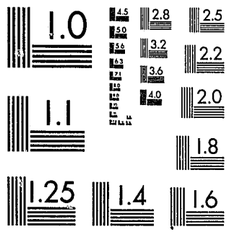

DRAFT TECHNICAL REPORT

ARREST CONVICTABILITY AS A MEASURE OF POLICE PERFORMANCE

- PART ONE -

THE REPLICATION ANALYSES

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Prepared by

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TABLE OF CONTENTS

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INTRODUCTION

Of the many crime control tools available to the police, the arrest--the decision to invoke the criminal process--is perhaps the most visible and the most controversial. The arrest has long been used to measure police performance. This has been done in terms of both arrest frequency and the rate at which offenses are cleared by arrest. These measures, however, have come under sharp attack, principally because they ignore arrest quality and related due process considerations.

According to Murphy (1975):

> Many of the arrests police make are of poor quality. This is the natural result when too much stress is laid upon number of arrests and not quality. In far too many instances, police arrests fail to pass the court's determination of probable cause at arraignment.

A similar point has been made by the American Bar Association (1973):

> Even though the prevention of crime and the apprehension of offenders must be a primary responsibility of the police, the use of arrest as a measurement of performance without inquiring into the quality of the arrest or the ultimate disposition of the case is improper. To measure the quality of police performance based upon the number of arrests made is analogous to measuring the performance of a doctor on the basis of the number of operations performed--without any regard for the need for the operation or for its success.

The close relationship between arrest quality and the objective of due process has been described in a Rand (1970) report:

> Within the criminal justice system, the police function is to identify and arrest suspected offenders and gather evidence for the final determination of legal innocence or guilt. A supporter of the Due Process Model would hold that, all other factors being equal, an arrest that leads to conviction is more valuable than an arrest that does not, since only in the former is legal guilt established and the criminal sanction properly applied. A more extreme proponent of the Due Process Model might even argue that an arrest that does not lead to conviction inflicts a net cost on society since the defendant is liable to feel some undesirable effects even though he is not legally guilty.

A common, but clearly unacceptable, rejoinder to these criticisms is that the police are responsible for the arrest and the prosecutor for the conviction, i.e., the police cannot materially influence conviction rates. It is evident that the goals of the police and prosecutor are as similar as those of any two components of the criminal justice system. Both aim to remove the offender from the street, deter others from committing crime, and preserve public order.

Yet it is all too clear that the police and prosecutor are not as closely aligned in pursuit of their common goals as they could be. The police have traditionally viewed their crime control responsibilities in terms of simply making arrests, rather than in terms of making arrests that hold up in court. And the prosecutors, often burdened with enormous case loads, have viewed their responsibilities in terms of convicting only those defendants whose cases survive the mass-dismissal phenomenon that occurs between arrest and adjudication.

A. FINDINGS FROM INSLAW'S EARLIER STUDY

What Happens After Arrest?, an INSLAW study of police operations in the District of Columbia, found that the police can be a crucial determinant of what happens after the arrest. The study analyzed 14,865 adult arrests made by the District of

Columbia's Metropolitan Police Department (MPD) and presented for prosecution to the Superior Court Division of the United States Attorney's Office in 1974. (In the District of Columbia, the U.S. Attorney is the prosecutor of common law offenses--all felonies and most serious misdemeanors.)

The data source was the Prosecutor's Management Information System (PROMIS), which has been operating in the U.S. Attorney's Office since 1971 and which records up to 250 pieces of information on each arrest from the time the arrest is presented for screening until it is disposed of by some means. A focal point of the analysis was the impact on arrest convictability of three items recorded in PROMIS: the recovery of tangible evidence, the securing of witnesses, and the span of time that elapses between the offense and the arrest.

One of the principal findings of the study was that when the arresting officer manages to recover tangible evidence, the prosecution is more likely to convict the defendant:

> We find that the arrests that wash out of the court tend to be supported by less evidence at the time the case is brought to the prosecutor than those that end in conviction. When tangible evidence, such as stolen property and weapons, is recovered by the police, the number of convictions per 100 arrests is 60 percent higher in robberies ..., 25 percent higher in other violent crimes ..., and 36 percent higher in nonviolent property offenses.... (p. 42)

Another finding concerned the value of witnesses: "When the police manage to bring more cooperative witnesses to the prosecutor, the probability of conviction is significantly enhanced for both violent and property crimes" (p. 42). A related finding concerned the relationship of the victim and the arrestee, i.e., whether they were strangers, related, or otherwise known to one another.

> Related to the role of witnesses is our finding that a conviction was much more likely to occur in an arrest in which the victim and arrestee did not know one another prior to the occurrence of the offense. This holds for robberies, other violent crimes, and nonviolent property offenses.... A deeper insight into this result can be obtained by examining the rate at which the prosecutor rejected or dismissed cases due to witness problems; we find the rate of rejection due specifically to witness problems, such as failure to appear in court, to be substantially higher for offenses that were not recorded as stranger-to-stranger episodes.... (p. 43)

A third major finding concerned the length of time between the offense and the arrest: "When the police are able to make the arrest soon after the offense--especially in robberies, larcenies and burglaries--tangible evidence is more often recovered and conviction is ... more likely" (p. 89). This finding is more complex and more qualified than the other two:

> We find that another feature of the arrest influences the likelihood that the arrestee will be convicted--the length of the delay between the time of the offense and the time of the arrest. We find this delay to be longest in robberies, with 55 percent of the arrests made more than 30 minutes after the offense. The conviction rate for robbery arrests--especially the stranger-to-stranger arrests--declines steadily as the delay grows longer. In stranger-to-stranger robbery episodes, 40 percent of all persons arrested within 30 minutes of the offense were convicted; for the suspects apprehended between 30 minutes and 24 hours after the occurrence of the offense, the conviction rate was 32 percent; for arrests that followed the occurrence of the crime by at least 24 hours, the conviction rate was only 23 percent....
>
> To the extent that arrest promptness does increase the conviction rate, it appears to do so largely out of the enhanced ability of the police to recover tangible evidence when the delay is short. In stranger-to-stranger robbery episodes, recovery of evidence is more than twice as likely when the arrest is made within 30 minutes of the occurrence of the offense than when it is made at least 24 hours later.... This pattern is similar for violent offenses other than robbery ... and somewhat less extreme in the case of nonviolent property offenses....

> While prompt arrest may sometimes yield more witnesses, the data indicate that more witnesses are especially common in those arrests in which the delay between the offense and the arrest is longer than five minutes.... This is likely to reflect the fact that crimes are usually committed without many witnesses; prompt arrests are primarily a result of the proximity of the police, not the existence of several witnesses. When an offender does commit an offense in the presence of two or more witnesses, he is more likely to be apprehended, but rarely within five minutes. The additional support of witnesses in cases involving longer delay was reflected also by our finding that in arrests for violent offenses (including robbery) the prosecutor rejected or dismissed cases due to witness problems at a significantly lower rate when the delay was long.... (p. 43)

The study also looked at a number of police officer characteristics in an effort to determine whether differences in performance among officers were influenced by officers' personal characteristics.

The data set included the following characteristics: age, sex, years of experience on the force, marital status, and residence (within or outside of the District). The principal finding concerned officers' experience:

> While more experienced officers tend to produce more convictions and have higher conviction rates than officers with less time on the force ... the other characteristics in the data--age, sex, residence, and marital status--are, at best, only mild predictors of an officer's ability to produce arrests that become convictions. (p. 55)

Despite this finding of little association between officer characteristics and conviction rates, the analysis did reveal another kind of association between officers and conviction rates: "Over half of the 4,347 MPD arrests [adult felonies and serious misdemeanors] made in 1974 that ended in conviction were made by as few as 368 officers--15 percent of all the officers who made arrests, and 8 percent of the entire force"

(p. 48). (Thirty-one percent of all MPD officers who made arrests [the total number of arresting officers was 2,418] made no arrests that led to conviction.) The finding for felony arrests only was equally compelling: over half of those 2,047 arrests that ended in conviction were made by "a handful of 249 officers" (p. 48).

Regarding the concern about quantity of arrests versus quality, noted above, the conviction rate for the arrests made by the 368 high arrest-convictability officers was 36 percent, considerably higher than the 24 percent averaged by the other MPD officers who made arrests in 1974. The study concluded: "It is evident that the officers who produced the most convictions did not do so merely by making numerous arrests" (p. 48).

B. PURPOSE AND SCOPE OF THE STUDY

The purpose of this study is twofold: (1) to replicate in other jurisdictions the basic aspects of the earlier study of police operations in the District of Columbia, which found that some officers make adult felony and serious misdemeanor arrests that are systematically more likely to lead to conviction than the arrests of other officers; and (2) to conduct further research--largely through intensive interviews in two sites--into the extent to which officer characteristics and special work-related techniques influence the performance of individual police officers--in particular their ability to recover physical evidence and to locate and maintain the cooperation of lay witnesses.

One part of the study is a straightforward replication. The other is an effort to go beyond the earlier study in an attempt to uncover which factors contribute to higher rates of arrest convictability or, said another way, arrest quality.

Perhaps the most interesting finding that emerged from What Happens After Arrest? was that a small number of police officers made a majority of the arrests that ended in conviction. As noted above, 15 percent of officers making arrests (8 percent of the force) made in excess of 50 percent of those arrests that ended in conviction. Conversely, 31 percent of officers making arrests made no arrests that led to conviction. Our hypothesis is that there may very well be differences between these two groups--differences that could be mitigated by changes in policy or procedures. Thus, the overall goal of the study is to identify those policies that might be altered so as to increase the quality of arrests made by police officers. Candidate areas include police recruitment, orientation, training, assignment, career development, and pre-arrest, arrest, and post-arrest policies, procedures, and support services.

1. The Replication Analyses

In Part One of the study we replicate the basic aspects of the analysis described in What Happens After Arrest? and re-examine its principal findings. In essence, we want to know whether the findings from the District of Columbia are generalizable. Do a small number of officers make a majority of the arrests in Los Angeles and New Orleans as they do in Washington, D.C.? Is evidence as important to conviction in

Manhattan or Cobb County (Georgia) as it is in Washington, D.C.? How important are witnesses in Indianapolis and Salt Lake County?

It may be that the findings of the earlier research can be generalized to other jurisdictions. It may also be the case that, for example, variations in arrest quality across individual officers generally are greater in Washington, D.C., than in other jurisdictons, or less, or about the same.

One police observer cautions against overgeneralizing about police departments. In his book, Police: Street Corner Politicians, Muir (1977) states: "The peculiar characteristic of police departments in the United States is that they are local and very different one from the other. An observer of a single police department must constantly check against a tendency to overgeneralize."

The replication analysis was conducted for seven jurisdictions, including Washington, D.C., using 1977-1978 data. The jurisdictions were selected on the basis of three criteria.

(1) PROMIS user--to permit empirical tracking of criminal cases from arrest to sentencing;

(2) Geographic and demographic factors--to ensure a range of jurisdictions from all areas of the country; and

(3) Willingness of the jurisdiction to cooperate--including not only the District Attorney, who would have to make the data available for analysis, but also the police departments whose arrests would be analyzed. (In several sites, the police departments supplied personnel data.

From approximately 12 PROMIS jurisdictions that had been operational for more than a year, seven were chosen for study.

The seven provide an interesting mix of large- and medium-size jurisdictions, and they represent each major area of the country. The participating jurisdictions are identified below:

-- Cobb County, Georgia--a small, southeastern jurisdiction--more suburban than rural;

-- Indianapolis, Indiana (Marion County)--a large, midwestern jurisdiction, essentially urban and suburban;

-- Los Angeles County, California--West Coast, the nation's largest county in terms of population;

-- Manhattan (New York County, New York)--the most densely populated jurisdiction in the country, completely urbanized, eastern;

-- New Orleans (Orleans Parish)--a mostly urbanized, southern city;

-- Salt Lake County--a less urbanized county in the Rocky Mountains;

-- Washington, D.C.--the Federal City, a medium-size city in the mid-Atlantic area and the site of the earlier study.

In both Washington, D.C., and Manhattan, we decided to look only at arrests presented by the largest police department--the New York Police Department and the Washington Metropolitan Police Department, respectively. In Los Angeles, we decided to look only at the Los Angeles Police Department. For New Orleans, essentially all of the arrests presented to the prosecutor were made by the New Orleans Police Department. For Cobb County, Salt Lake, and Indianapolis, however, we looked at arrests brought by both the sheriff and police departments. In general, our decisions about which departments from any given

PROMIS jurisdiction to include in the study were based on the department's willingness to cooperate with the study, manageability, and which departments were responsible for most of the arrests showing up in PROMIS.

2. The Analysis of Police Officer Interview Data

Part Two of the study involved the conduct of in-depth interviews with police officers who had high rates of arrest convictability and those with low rates of arrest convictability. Our purpose was to determine whether there are differences between the two groups, in terms of personal characteristics and other factors, that help to explain differences in arrest convictability.

In October 1979, nearly 100 sworn members of Washington, D.C.'s, Metropolitan Police Department were interviewed. And in December 1979, approximately 80 members of the New York City Police Department were interviewed.

From the interviews we sought, first, to describe officers with high convictability rates (HCR) and those with low convictability rates (LCR) in their attitudinal and behavioral aspects. To what extent and in what ways are HCR officers different from or similar to LCR officers?

Second, we sought to determine whether attitudes, perceptions, and basic knowledge of police practices account for high arrest convictability rates. To this end, a self-administered written questionnaire was developed (see Appendix A for a copy of the questionnaire). Seven sets of variables that might be related to the HCR phenomenon were covered in the questionnaire:

- Officer background/demographic characteristics;
- General attitudes toward job and career;
- Perceptions of the organizational context--the department, prosecutor, courts, and community--and the reward system;
- Role concepts;
- Attitudes toward arrests;
- Perceptions of the value of physical and testimonial evidence; and
- Basic knowledge of police procedures.

Third, we sought to explicate any special techniques employed by the high achieving officers. To this end, a second questionnaire was developed and administered by INSLAW staff and interviewers employed and trained for this purpose. (A copy of this questionnaire is included as Appendix B.)

C. ORGANIZATION OF THE REPORT

Part One, which consists of Chapters I, II, and III, reports on the "Replication Analyses." Chapter I is a brief exposition on the seven replication sites. Following general comments about the PROMIS data bases in the seven jurisdictions, we present a discussion of arrest disposition patterns in each jurisdiction. (Additional narrative detail for each jurisdiction is contained in Appendix C.)

In Chapter II, we first discuss factors affecting arrest convictability over which the police have no control. This includes the inherent convictability of certain types of crime, as well as the relationship between the victim and the defendant. Next, we examine factors that are somewhat more under the control of the police: lay witnesses, recovery of

evidence, elapsed time from offense to arrest, and interactions among time, evidence, and witnesses. The concluding section summarizes the findings from the seven jurisdictions and compares them with those of the earlier study.

In Chapter III, we address officer-related factors affecting arrest convictability. Here, we report on whether, as in Washington, D.C., a small number of officers make a majority of the arrests that end in conviction. Next, we look at high achievers in terms of their assignment. (One of the recurring criticisms of the earlier study was that it did not take "arrest opportunity" into account.) Next, we look at the impact of a series of police officer characteristics: officer age, length of service, race, sex, education, and marital status. A concluding section contains a summary of findings from this part of the analysis.

Part Two describes the analysis of the interview data. Chapter IV provides basic information about how the interviews were conducted. Chapters V and VI document analyses of the written questionnaire administered in Washington, D.C., and in New York City (Manhattan), respectively. Chapter VII is a report of findings from the personal interviews that attempted to uncover special techniques employed by arresting officers.

Part Three (Chapter VIII) contains a discussion of the conclusions that emerge from the study.

PART ONE

REPLICATION ANALYSES

I. THE REPLICATION SITES

The seven replication jurisdictions are diverse in most aspects: physical size, total population, population composition, crime and arrest dimensions, criminal justice expenditures and employment, police and prosecutor organization and functioning, steps in the judicial process, and disposition of arrests in the replication year. (Table I.1 presents an overview of these jurisdictional characteristics; additional details are provided in Appendix C.) The number of jurisdictions and their diversity are important in terms of lending credibility to the findings that either support or conflict with the earlier findings from the District of Columbia.

Much of the analysis in this report reflects differences in the way police and prosecutors perform their work. Some of these differences stem from the fact that we are dealing with different people performing similar activities. Other differences, however, result from the fact that the scope of activities differs. This includes the number and type of offenses handled by the police and the prosecutor, available manpower, and the range of procedures that the police and the prosecutor have at their disposal. Sociodemographic factors may also lead to variations in how law enforcement agencies operate.

It is the purpose of this chapter, starting with the prosecutor's office, to identify the range of differences among the jurisdictions. It is important to remember that what follows is <u>not</u> an evaluation of the operations of the various agencies.

Table I.1
OVERVIEW OF JURISDICTIONAL CHARACTERISTICS

JURISDICTION REPLICATION PERIOD	SPECIAL NOTES	DEMOGRAPHIC DATA	CRIME AND ARREST DIMENSIONS	THE POLICE	THE PROSECUTOR	POLICE-PROSECUTOR INTERFACE	THE ARREST MIX
Cobb County, GA Calendar 1977	Smaller jurisdiction than others; in the Atlanta SMSA; urban, suburban, and rural	County -- area: 343 sq. mi. pop: 240,000 Marietta -- pop: 31,300	As the smallest jurisdiction, Cobb had fewer total crimes and lowest rate per 100,000 (1975) Arrest data unavailable	Three police agencies included: Cobb Co. Police Department; C.C.Sheriff's Dept.; Marietta Police Dept.	District Attorney, eight assistants, and support staff handle about 4,000 cases per year	An investigator usually brings case to the prosecutor rather than arresting officer	Adult felonies only in the data base; office does handle juvenile prosecution
Indianapolis, IN (Marion County) October 1, 1977 - September 30, 1978	Large midwestern jurisdiction; consolidated city/county except for law enforcement	County -- area: 392 sq. mi. pop: 782,000 "Old City" of Indianapolis -- pop: 485,000 (est)	Comparative data for 1975 indicates highest crime rate of seven jurisdictions Arrest data incomplete; IDP P + I arrests in 1977 = 5057	Two police agencies included: Indianapolis P.D. (1,368 employees) and M.C. Sheriff's Dept. (523 employees)	County prosecutor, with a staff of 150 (half attorneys), handles 4,000 felonies and 45,000 misdemeanor arrests per year	IPD's automated reporting system speeds arrest data to DA's office. Arresting officer usually appears too	Adult felonies in the PROMIS data base
Los Angeles, CA July 1, 1977 - June 30, 1978	Study includes only arrests made by Los Angeles Police Department; West Coast jurisdiction	County -- area: 4,069 sq. mi. pop: 6,987,000 City -- area: 464 sq. mi. pop: 2,727,000	L.A. City reported 217,800 Index Crimes to FBI; rate of 7987 in line with other large cities	LAPD, with 7000 members, is small in terms of officers per 1,000 population. Very forward looking dept.	County Prosecutor has staff of 2,000; of that total 1,000 handle criminal prosecutions. Office is decentralized	Investigator brings arrest information to DA within 24 hours; arresting officer seldom called for info	46,438 adult felony arrests in data
Manhattan, NY (New York County) Calendar 1978	Highest population density; highly urbanized; eastern; part of a single police department	area: 23 sq. mi. pop: 1,429,000 density: 62,000 per sq. mi.	1978 police data lists 150,900 Index Crime. Crime a very serious problem. 1978 arrests - 36,287	A portion of the NYCPD provides law enforcement services to the borough of Manhattan	District Attorney of New York has a large staff; converted to vertical prosecution before replication year	Arresting officer will present arrest within 8 to 24 hours to one of six trial bureaus	Data base includes felonies, misdemeanors and traffic offenses; arrest selection done to mirror Washington; including 40,393 closed cases
New Orleans, LA (Orleans Parish) Calendar 1977	Mostly urbanized, southern city with a single police department	area: 197 sq. mi. pop: 560,000 density is third behind Manhattan and Washington	NOPD reported 39,500 Index Crimes to FBI in 1977. Crime rate for 1975 second lowest of seven sites. 10,800 arrests reported to FBI in 1977	A single police department of 2000 employees (1600 sworn) provide service to the city and parish.	A staff of 179, includes 59 attorneys and 120 support personnel. Also, 23 NOPD officers serve as investigators	Arresting officer brings arrest report to prosecutor's office within 10 days of arrest	Data base included many minor crimes; selection similar to Manhattan's to mirror Washington; 10,286 arrests examined
Salt Lake County Utah Calendar 1977	A less urbanized county in the Rocky Mountains, includes Salt Lake City	County -- area: 764 sq. mi. pop: 512,000 City -- area: 59 sq. mi. pop: 170,000	1975 comparative data indicates a fairly high crime rate among seven jurisdictions. Two depts. reported 6400 Pt. 1 arrests (1977)	Two agencies included: Salt Lake City P.D. (475 employees) and Salt Lake County Sheriff's Dept. (456 employees)	A staff of 23 includes 15 who handle felony prosecution	An investigator usually brings arrest report to prosecutor	Data base very comparable to Washington's. All 3451 arrests included in analysis
Washington, D.C. Calendar 1977	The Federal City, urban, medium size--location of the original study	area: 61 sq. mi. pop: 712,000 density in excess of 11,600/sq. mi.	1975 comparative data puts Wash., D.C. third behind Indianapolis and Manhattan in crime rate. MPD reported 10,704 arrests	Washington's Metropolitan Police Department, is a large, well-equipped urban force. About 4,000 officers/500 civilians	Appointed U.S. Atty. is federal and local prosecutor for the District of Columbia	Arresting officer presents arrest data to screening unit within 18 to 24 hours of arrest	This was the controlling jurisdiction in terms of arrest mix--adult felonies and serious misdemeanors

The purpose is to describe and, through analysis, to explain the differences so as to provide an appropriate context for the analyses in Chapters II and III.

In this chapter we present an arrest disposition "tree" for the replication period in each jurisdiction and comment on the information presented. We begin by repeating the 1974 arrest disposition information for Washington, D.C., that appeared in What Happens After Arrest? and then contrast the dispositions of arrests in the various jurisdictions in 1977-1978.

Before turning to the arrest disposition trees, several points should be noted. First, the analysis looks only at arrests that reached a final disposition--even if the disposition was reached between the end of the study period and the time the data were extracted from the data base. This has several implications: arrests and dispositions will tend to be fewer than the number of arrests reported by the police or the prosecutor, and there will be minor variations in case disposition totals and disposition percentages from those published by the several district attorneys. These minor variations, however, should have little or no impact on findings and conclusions drawn from the data bases.

Second, we regard disposition as the formal (and final) action of the court or the court's representative, the prosecutor, regarding a person who was placed under arrest. The PROMIS system does not track arrests that are not presented to the prosecutor.

Third, in interpreting arrest disposition information for a given prosecutor's office, one must be mindful of the overall context within which the prosecutor operates. This includes the type of arrests handled (i.e., only felonies, some misdemeanors and all felonies, or all misdemeanors and felonies), whether the police have the power (or assume the power) to pre-screen arrests, and the extent to which prosecutors are able to refer cases for alternative prosecution or non-adjudicated disposition.

As pointed out below, a substantial amount of variation exists in the number and types of arrests presented for prosecution. Variation also exists due to the fact that police in some jurisdictions are more likely to pre-screen arrests than police in others. Among some jurisdictions, acceptance rates may appear quite disparate. In certain instances, a low acceptance rate reflects a statutory requirement that all arrests, regardless of police-perceived merit, be presented for prosecution. In other instances, a high acceptance rate may reflect considerable prior screening by the police--in which case the average arrest presented may have greater prosecutive potential.

The distribution of final dispositions may also vary because of the range of alternatives that are available to the prosecutor. The resources of some prosecutors' offices constrain them simply to accept or reject a case; others may be able to make a decision among prosecution, referral for other prosecution, diversion, or rejection. This will greatly impinge on the interpretation of final disposition rates. The

acceptance rate for Los Angeles, for example, is roughly half that for Washington, D.C. Many of the arrests not accepted, however, are not outright rejections, but referrals for other prosecution, the ultimate disposition of which are not tracked by PROMIS.

A number of additional factors may also contribute to variations in the distribution of dispositions among the different jurisdictions. These include the prosecutor's work load, the court's work load, the availability of correctional facilities, community standards, and a host of other factors.

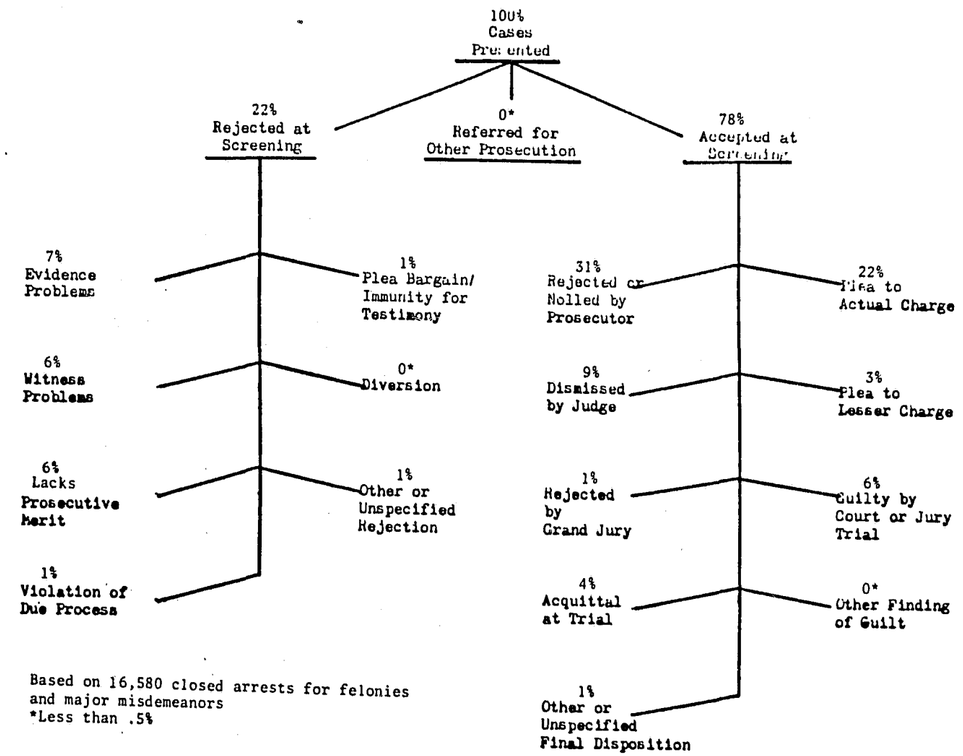
Consequently, one should not look at the data presented as providing evidence of the relative efficiency of the various prosecutors' offices. The differences that occur do present interesting contrasts, but they are by no means sufficient to permit interjurisdictional evaluations.

A. WASHINGTON, D.C.

PROMIS provides tracking of all arrests presented to the Superior Court Division of the U.S. Attorney's Office. Those cases consist of all felonies and many major misdemeanors (primarily those that carry a potential maximum sentence of at least six months incarceration). Figures I.1 and I.2 show the disposition of cases in 1974 and 1977, respectively.

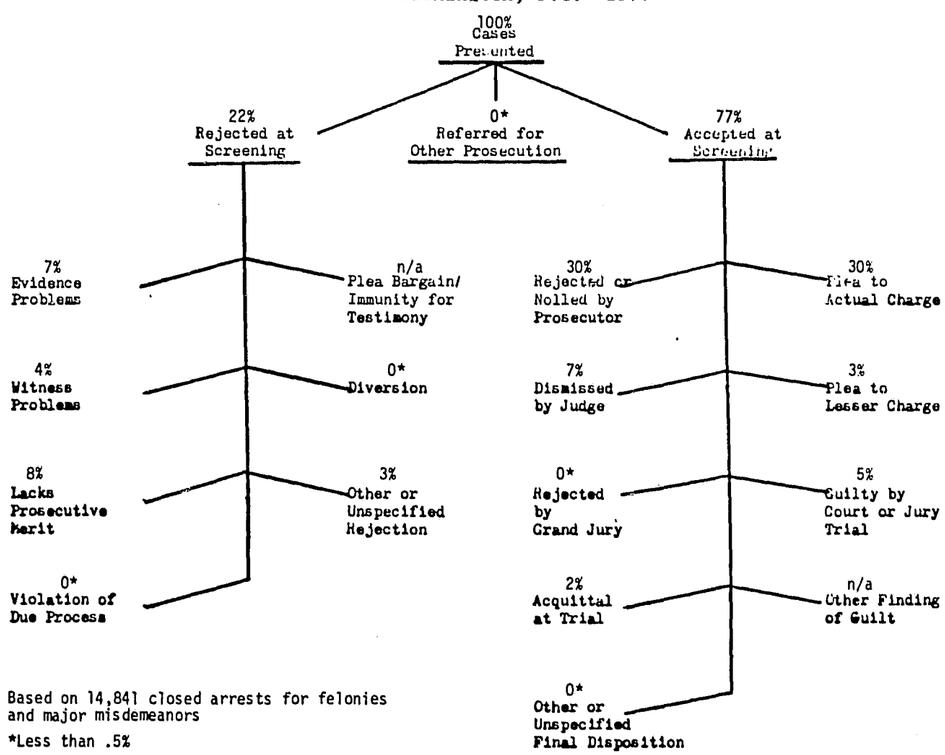
For calendar 1977, 14,841 cases presented to the U.S. Attorney are recorded as having reached a final disposition. This is approximately 1,700 fewer cases than were in the data base in 1974. The case "acceptance" rate has remained fairly stable, with 77 percent of the cases presented being accepted for prosecution. Since 1974, there has been a shift in case

Figure I.1
DISPOSITION OF FELONY AND MISDEMEANOR CASES PRESENTED TO THE SUPERIOR COURT DIVISION U.S. ATTORNEY'S OFFICE Washington, D.C. 1974



Based on 16,580 closed arrests for felonies and major misdemeanors
*Less than .5%

Figure I.2
DISPOSITION OF FELONY AND
MISDEMEANOR CASES PRESENTED
TO THE SUPERIOR COURT DIVISION
U.S. ATTORNEY'S OFFICE
Washington, D.C. 1977



Based on 14,841 closed arrests for felonies and major misdemeanors

*Less than .5%

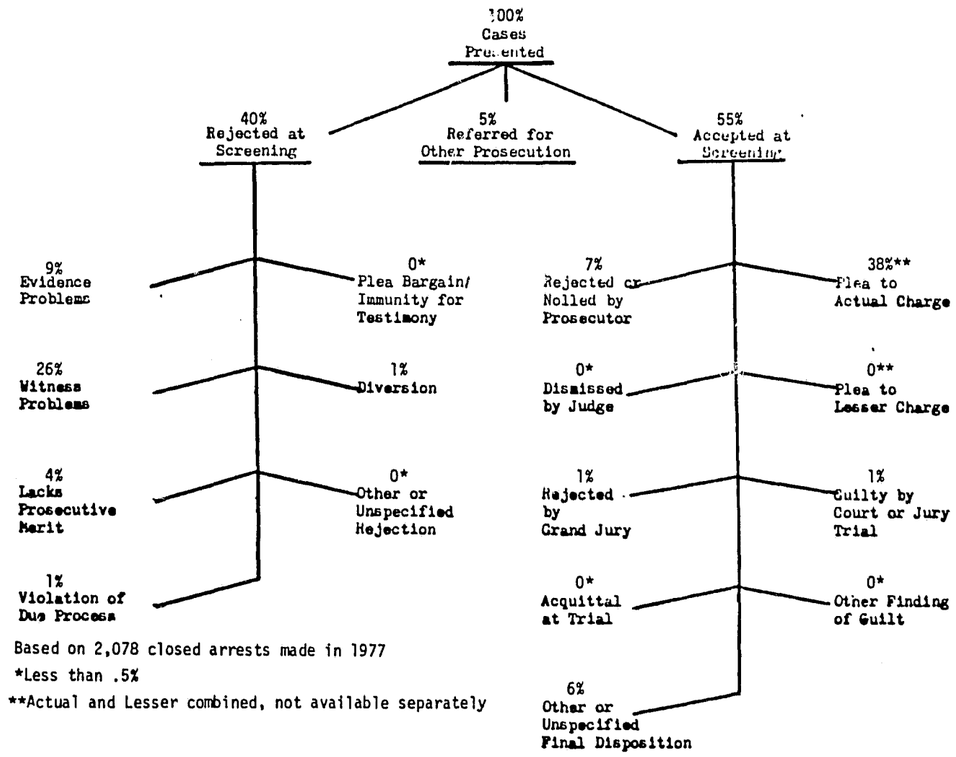
disposition patterns; "pleas to actual" charges rose from 22 to 30 percent, and there was a consequent reduction in court dismissals, nolles, grand jury rejections, and court trials. Of all cases presented, approximately 38 percent resulted in some finding of guilty, as opposed to 31 percent in 1974. Of all cases accepted for prosecution, just under half, 49 percent, resulted in a guilty finding.

Compared with median values for all jurisdictions, Washington shows a lower rejection rate at screening (22 percent vs 31 percent), but the percentage of subsequent rejections or nolles is considerably higher (30 percent vs 7 percent). Court dismissals are also higher than the median (7 percent vs 4 percent). Prosecutor nolles plus judicial dismissals (30 percent plus 7 percent), together with acquittals (2 percent), total 39 percent. This is more than twice the median (14 percent). On the other hand, the guilty subtotal (38 percent) is just under the median (39 percent).

B. COBB COUNTY

The District Attorney of Cobb County screens arrests presented for felony prosecution. For 1977, we found 2,078 closed felony arrests. Of that total, 55 percent were accepted for felony prosecution, 5 percent were referred for other prosecution, and the remainder were turned down. Of those presented to the prosecutor, 39 percent ended in some kind of guilty disposition; nearly 71 percent of those cases accepted resulted in a conviction. (See Figure I.3.) Interestingly, nearly all of these convictions were through pleas--the distribution of pleas to actual or lesser charges is not known,

Figure I.3
DISPOSITIONS OF FELONY ARRESTS
PRESENTED TO THE DISTRICT ATTORNEY
Cobb County, Georgia 1977



Based on 2,078 closed arrests made in 1977
*Less than .5%
**Actual and Lesser combined, not available separately

however. Less than 2 percent of all cases presented were disposed by bench or jury trial, acquittals and convictions included.

Compared with median values from the seven jurisdictions, Cobb County rejects more cases than average (40 percent vs 31 percent). Sixty-five percent of all rejections (26 percent of the arrests) were attributed to witness problems. Acceptances (55 percent) were at the median; other figures are approximately at or near the median. Pleas and findings of guilt match the median (39 percent); other dispositions (rejections, nolles, dismissals, and acquittals) are also at the median (14 percent).

C. INDIANAPOLIS

The Marion County prosecutor screens both felonies and misdemeanors presented by the police. Only felonies, however, are tracked by PROMIS. Those misdemeanors screened as "potential felonies" are recorded in PROMIS. Some of these are eventually referred for prosecution as misdemeanors in Municipal Court, and others are sent to Municipal Court for bindover and are later re-presented for prosecution as felonies. Consequently, a large proportion of arrests presented to the prosecutor are listed as "referred for misdemeanor or other prosecution"--about half. For most of these, PROMIS tracking ends at that point. A very small number of the "bindovers" eventually end up as being re-presented for felony prosecution. Consequently, some double counting occurs; the result is a small inflation of rejections and corresponding deflation of acceptances.

Keeping this in mind, the data show 4,904 arrests presented for felony prosecution. Of these, 31 percent were accepted for felony prosecution, and 19 percent were rejected for prosecution altogether. The remainder were referred for other prosecution. Of those cases presented, 23 percent actually resulted in a felony prosecution and conviction; 74 percent of the cases prosecuted as felonies resulted in a felony conviction (see Figure I.4).

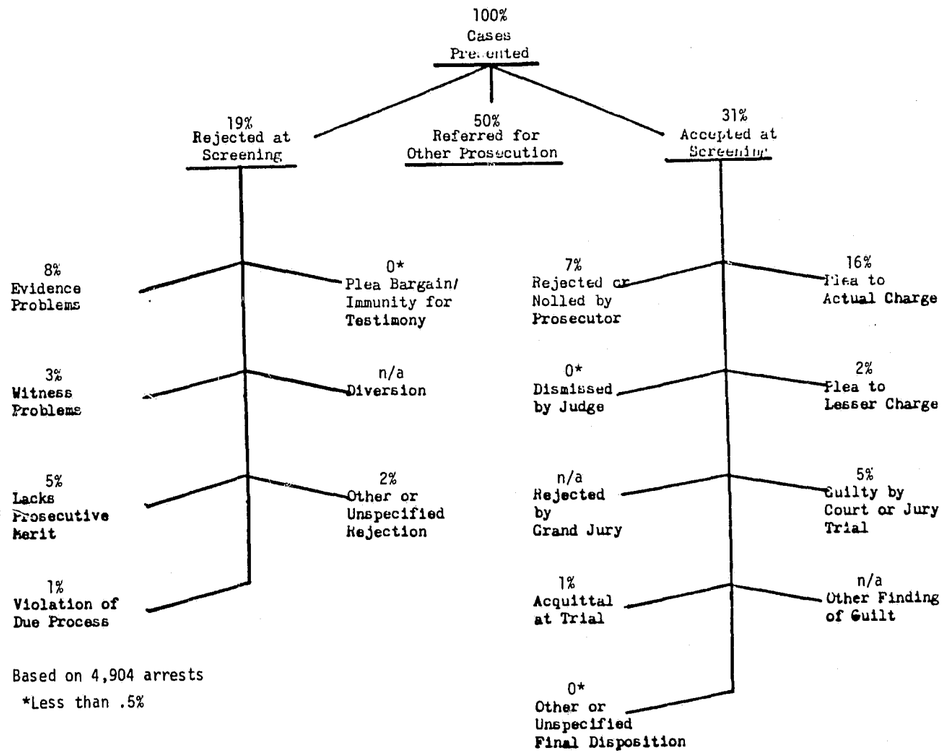
Because 50 percent of arrests are referred for other prosecution, it is virtually meaningless to compare disposition rates in Indianapolis with median values for other jurisdictions.

D. LOS ANGELES

Of the 53,055 adult felony arrests presented by the Los Angeles Police Department (LAPD), 46 percent were accepted for prosecution as felonies, 35 percent were rejected for prosecution, and 19 percent were referred for either misdemeanor or other prosecution. Approximately 31 percent of all cases presented resulted in a felony conviction, while 67 percent of all cases accepted resulted in some kind of conviction (see Figure I.5).

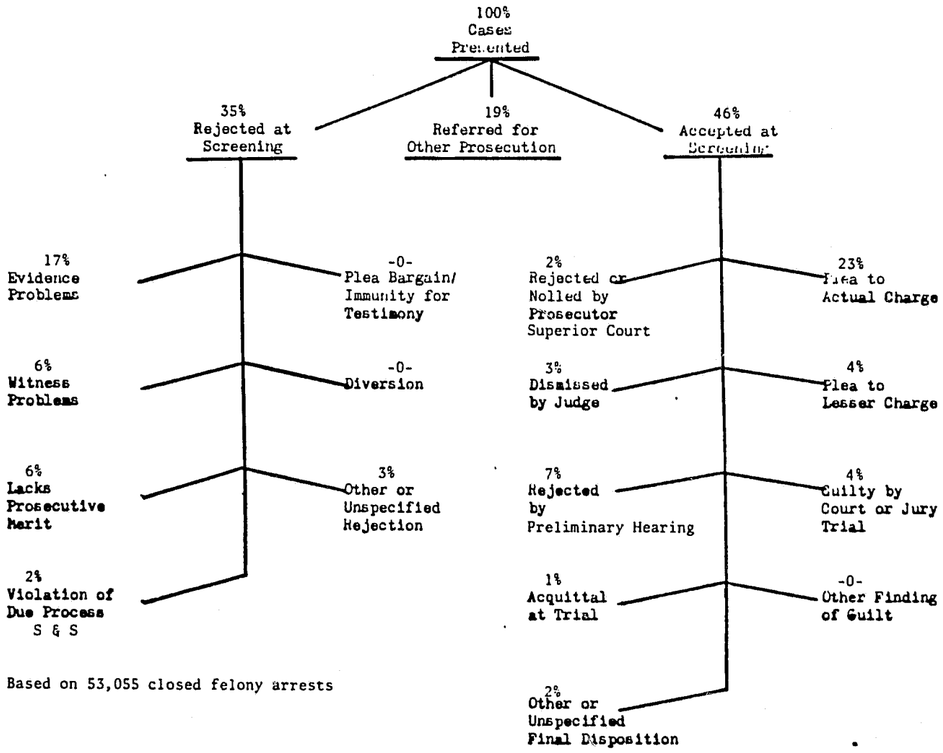
Compared with median values from the other jurisdictions, Los Angeles rejects more cases (35 percent vs 31 percent) and refers more (19 percent vs 5 percent). Only Indianapolis (at 50 percent) refers a significant part of its case load; all other jurisdictions refer less than 6 percent. As a result, acceptances are lower than average (46 percent vs 55 percent).

Figure I.4
DISPOSITION OF ARRESTS
PRESENTED FOR FELONY PROSECUTION
Indianapolis (Marion County), Indiana
October, 1977 - September, 1978



Based on 4,904 arrests
*Less than .5%

Figure I.5
DISPOSITION OF FELONY ARRESTS
PRESENTED TO THE DISTRICT ATTORNEY
Los Angeles County
July, 1977 - June, 1978



Based on 53,055 closed felony arrests

Once a case is accepted, rejections or nolles are less frequent (2 percent vs 7 percent).

E. MANHATTAN

The data reveal that of the 40,393 closed cases in the 1978 DANY (District Attorney of New York County) PROMIS data base, only 16 percent were not accepted for prosecution. Of those cases presented, 68 percent resulted in some finding of guilt, and 81 percent of the cases accepted for prosecution resulted in a conviction. (See Figure I.6.)

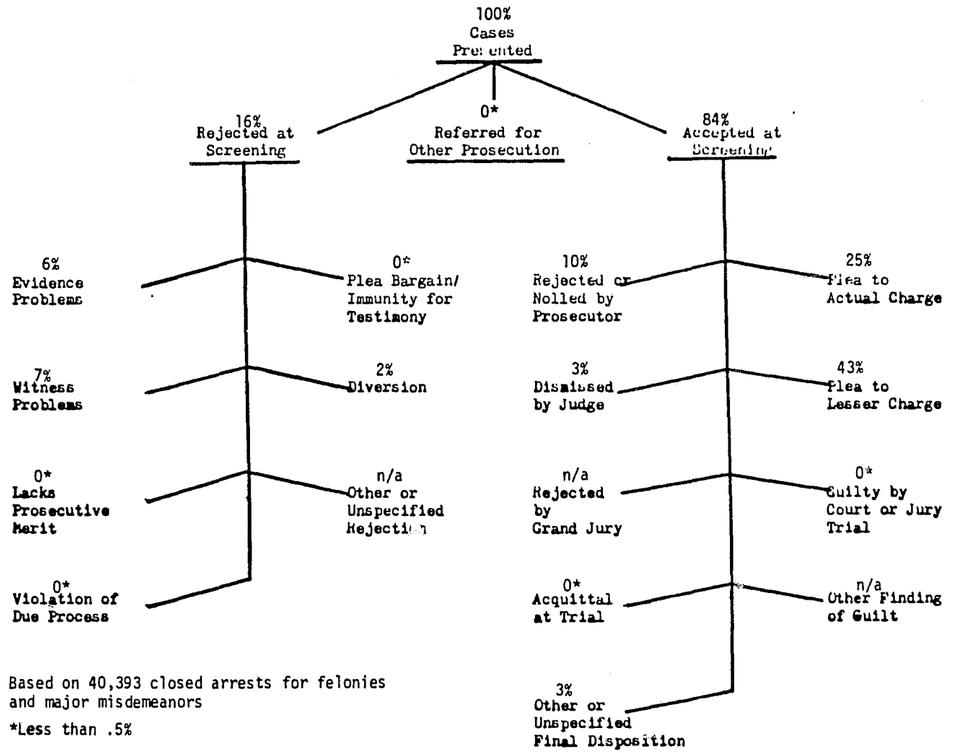
New York's low rate of rejection (16 percent) makes comparison with other jurisdictions virtually meaningless.

F. NEW ORLEANS

We examined 10,286 arrests presented to the District Attorney during 1977. Based on that total, we found that 52 percent were accepted for prosecution, 2 percent were referred for other prosecution, and the remainder were turned down. Of the cases presented, 40 percent resulted in some finding of guilt, while 77 percent of the cases actually prosecuted by the District Attorney resulted in conviction. (See Figure I.7.)

Compared with medians for all the jurisdictions, New Orleans rejects more cases (46 percent vs 31 percent). A majority of the rejections are attributed to problems related to evidence and witnesses. Surprisingly, "violation of due process" shows up as a significant percentage (6 percent in New Orleans vs 2 percent as the next highest percentage). Another noteworthy item is the percentage of arrestees who were diverted (6 percent vs 2 percent for one jurisdiction and 1

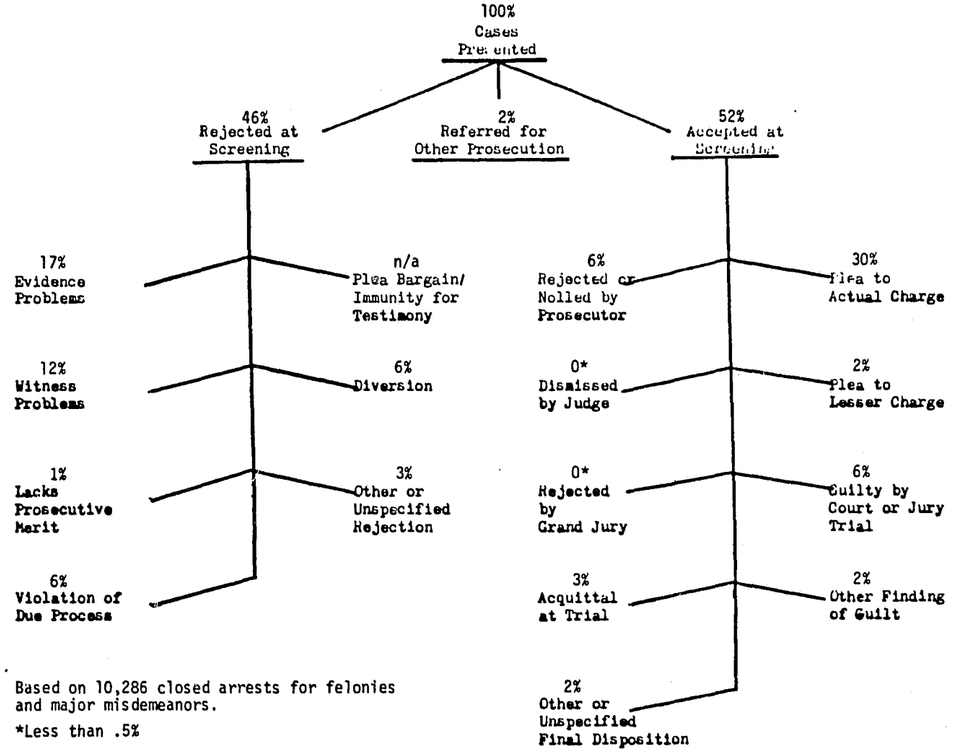
Figure I.6
DISPOSITION OF FELONY AND
MISDEMEANOR CASES PRESENTED
TO THE DISTRICT ATTORNEY
Manhattan (New York County), New York 1978



Based on 40,393 closed arrests for felonies and major misdemeanors

*Less than .5%

Figure I.7
DISPOSITION OF FELONY AND
MISDEMEANOR CASES PRESENTED
TO THE DISTRICT ATTORNEY
New Orleans, Louisiana 1977



Based on 10,286 closed arrests for felonies and major misdemeanors.

*Less than .5%

percent for another). Several jurisdictions noted diversion of less than 1 percent. Other percentages are in line with the medians for all the jurisdictions.

G. SALT LAKE

Of the 3,431 arrests in the data base, 66 percent were accepted for prosecution, 3 percent were referred to some other jurisdiction for prosecution, and the remainder (31 percent) were turned down. Of those arrests presented, 40 percent resulted in conviction, while 61 percent of those accepted for prosecution resulted in conviction. (See Figure I.8.)

Salt Lake County is at the median for all jurisdictions studied in terms of rejections (31 percent). The leading cause for rejection was witness problems (18 percent vs a 9 percent median); this was the only jurisdiction wherein witness-related rejections exceeded 50 percent of the total rejections. Acceptances are higher than the median (66 percent vs 55 percent), as are subsequent rejections or nolles (20 percent vs 7 percent).

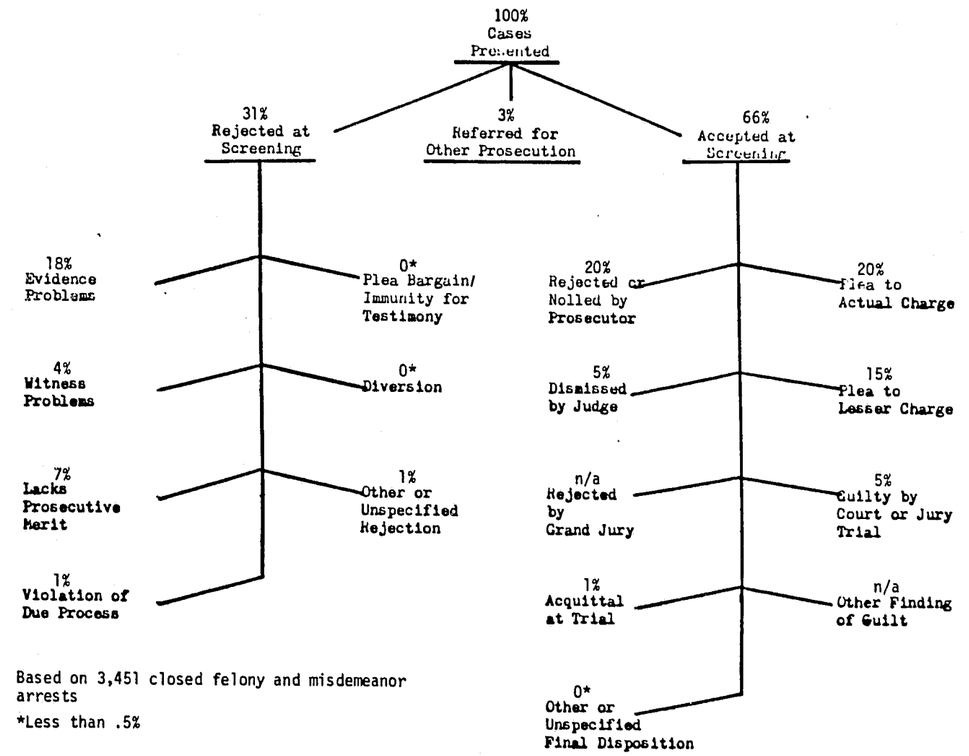
Pleas to actual charges are somewhat less than the median (20 percent vs 25 percent), and pleas to a lesser charge were considerably higher (15 percent vs 4 percent).

Overall conviction rate (noted above as 40 percent) was about at the median--39 percent.

***

Reviewing briefly, the acceptance rates in the study jurisdictions varied from 31 to 84 percent, which accounted for much of the variation in overall conviction rates (probability

Figure I.8
DISPOSITION OF FELONY AND MISDEMEANOR CASES PRESENTED TO THE DISTRICT ATTORNEY
Salt Lake County, Utah



Based on 3,451 closed felony and misdemeanor arrests

*Less than .5%

of conviction, given arrest). This relationship is evidenced by the smaller amount of variation in prosecution conviction rates (probability of conviction, given acceptance for prosecution). More detailed results are shown in summary in Table I.2.

For the most part, variation in acceptance rates results from the arrest mix, as well as arrest volumes, screening criteria, and other local factors. Our observations indicated that the arrest mix is the dominant factor. Some prosecutors are charged with handling both felonies and misdemeanors, some just felonies, and others all felonies and a limited number of misdemeanors. Even though we have taken measures to limit the noncomparability of cases being considered, a substantial amount of variation remains. As shown in the table, however, if we limit the examination to simply those crimes that are prosecuted, or to the FBI's UCR Part I type crimes that are prosecuted, there is considerably less variation among the jurisdictions.

Many of the differences shown in the table are further compounded by real differences among the jurisdictions. These include real differences in the kinds and quantity of arrests that are made, differing policies regarding the prosecution of particular offenses (particularly with respect to "victimless" crimes), and variations in the extent of prosecution necessary to meet the community's standards and expectations.

Table I.2
CROSS-JURISDICTIONAL COMPARISON OF
PROSECUTION ACCEPTANCE RATE AND SELECTED CONVICTION RATES

Jurisdiction	Prosecution Acceptance Rate[a]	Overall Conviction Rate[b]	Prosecution Conviction Rate[c]	Serious Crime Conviction Rate[d]
Washington, D.C.	77%	38%	49%	48%
Los Angeles	40%	27%	68%	69%
Manhattan	84%	68%	81%	74%
New Orleans	52%	40%	77%	82%
Indianapolis	31%	23%	74%	77%
Salt Lake	66%	40%	61%	66%
Cobb County	55%	39%	71%	72%

a. acceptances/arrests.
b. convictions/arrests.
c. convictions/acceptances
d. UCR Part I Offenses.

II. FACTORS AFFECTING CASE DISPOSITION

As is frequently the case in adapting management data for research purposes, some problems were encountered in preparing the data base for analysis. These ranged from dissimilarities in the way PROMIS terminology is used to omission of particular data elements. Table II.1 summarizes the availability and reliability of data elements used in the replication.

Table II.1. AVAILABILITY AND RELIABILITY OF DATA ELEMENTS

Jurisdiction	Evidence Indicator	Lay Witnesses	Vic/Def Relation	Elapsed Time	Declination Reason
Cobb County	2	2	2	2	2
Indianapolis	4	1	1	3	1
Los Angeles	5	1	5	5	2
Manhattan	1	2	5	1	1
New Orleans	5	1	1	3	1
Salt Lake	5	1	5	1	1
Washington, D.C.	4	1	1	1	1

Key:
1--Available and reliable
2--Available and reliable, but limited either numerically or in the range of information
3--Available, but does not appear reliable
4--Sparsely available and highly unreliable
5--Unavailable

In Cobb County, very few of the data elements of interest were recorded in the PROMIS data base. Because of this, we manually collected data about 1977 arrests from arrest and prosecution reports. Unfortunately, the files that were available to us represent a skewed sample in that many of the cases that resulted in pleas were omitted.

The Los Angeles data presented different problems. Not only were several of the key indicators absent from the data base, much of what was generally there was not available for

cases that were rejected by the prosecutor. The arrest date, for example, was not entered for over 90 percent of the declinations. Witness information was lacking as well. Consequently, what we can say about Los Angeles is limited.*

For Manhattan, the integrity of the data appears to be quite good, but a key variable--witnesses--was not recorded in the same way it was for the other jurisdictions. We are able to say only "yes" or "no" regarding the existence of witnesses, rather than being able to count them. Consequently, the "multiple witness" hypothesis could not be tested in Manhattan.

In Indianapolis, while all arrests presented to the felony branch of the prosecutor's office are logged into PROMIS, those that are referred for non-felony prosecution are not tracked once they are so referred. For purposes of this study, we do not have final dispositions on those cases, except for a few that come back as "bindovers." Cases that are sent to Municipal Court for bindover and that do come back for felony prosetion are handled as new cases. Consequently, to eliminate double-counting of such cases, and to eliminate cases for which we do not have final dispositions ("referral" is not necessarily a non-conviction), cases referred in this way were dropped from the analysis. Such referrals were much less frequent in other jurisdictions; however, where appropriate, they were similarly excluded. The end result is uncertain. If those deleted cases result in convictions, then the analysis underestimates the conviction rates of officers. If they are

*Because of this limitation, for example, the officer-based file, referred to later, does not contain a representative sample of arrests.

subsequently declined, dismissed, or acquitted, then this analysis overstates the conviction rates. Either way, these exclusions should be kept in mind in reviewing the analysis.

A. DEFINITION OF "CONVICTION"

For purposes of this study, the term conviction means a finding or plea of guilty to at least one charge presented to the prosecutor. A non-conviction occurs any time none of the charges in a case ends in a guilty disposition. The latter includes cases that are not prosecuted (declinations and referrals, except those noted above), nolles, cases turned down by the grand jury (where applicable), cases dismissed by the court, as well as acquittals.

It has been asserted by some that perhaps this definition of conviction is inappropriate and should not be applied to the police. This objection points to the fact that many of these processes--court, prosecutor, and grand jury dismissals, for example--are beyond police control. This argument is not without merit.

Much that the police officer does prior to presenting the case to the prosecutor, however, may in fact have a direct bearing on how far a case is processed, as well as on what the final disposition will be. Witnesses vital to the prosecution's case may have been obtained because of police action. Without the proper recovery and handling of evidence, certain cases may not be strong enough to convince a grand jury that indictment is warranted. In a limited number of cases, the testimony of the police officer may itself play a crucial role in determining whether a conviction is obtained.

In any event, to the extent these processes are beyond the control of the police, they affect the outcome of all arrests and do not bias the outcome with respect to any particular group of officers. The case may be helped or hurt by prosecutor, court, or defense counsel handling; however, cases enhanced by police action will still, on average, fare better than cases that are not so enhanced, if only due to greater longevity in the criminal justice process.

Given our definition of conviction, we can begin to answer the question: For those cases that are presented to the prosecutor, what factors tend to be related to the probability of conviction? More specifically, what is there that is related to police work or arrest handling that can affect the likelihood of conviction? Additionally, what factors intervene in these relationships, further increasing or decreasing the probability of conviction?

B. INHERENT CONVICTABILITY

The most obvious factor that determines the likelihood of conviction is the nature of the crime itself. Some crimes are inherently more difficult to convict. This difficulty is related to what is legally necessary to establish guilt, the prosecutor's view of the offense and the imperative to convict, the public's view of the offense, the defendant's perception of the availability of plea bargaining and other alternatives, as well as the judge's perception of the crime, the accused, and justice as a whole.

Much of what we ascribe to the "inherent" convictability of a crime is not so much a part of the crime itself, as it is a

part of what the crime typically involves. Such crimes as assault, rape, and auto theft, for example, tend to be harder to convict because they frequently involve victims and defendants who are known or related to each other. The existence of such relationships makes it difficult to enlist and to maintain the support of witnesses, who may be torn by loyalty, fear, or other emotional responses to their personal involvement with the defendant. Other crimes, such as homicide, through their social importance and relevance, i.e., salience, make witnesses more likely to cooperate. Homicide also produces more deliberate and careful handling throughout the criminal justice process, thus increasing its chances for conviction.

Additionally, some crimes involve a combination of factors, which further compounds the difficulty of obtaining a conviction. Rape, for example, not only frequently involves a victim and defendant who are nonstrangers, it is also technically difficult to convict, more so in some jurisdictions than in others. The chain of evidence is extremely difficult to maintain, given the nature of the offense, the victim's psychological and physical trauma, and the victim's desire to expunge reminders of the offense as quickly as possible. Even the most skilled police officers have difficulty obtaining and maintaining victim cooperation in such instances.

The inherent convictability of the offenses in our data base is reflected in the overall conviction rates for felonies and serious misdemeanors in the study sites. This is shown in Tables II.2a through II.2g. As shown later, inherent convictability may vary even within a crime category--some types

Table II.2a
DISPOSITION BY CRIME TYPE
Cobb County

CRIME	# OF ARRESTS	GUILTY
ROBBERY	38	47%
VIOLENT	242	10%
homicide	5	60%
sexual assault	21	29%
aggravated assault	188	5%
simple assault	5	20%
other	23	22%
PROPERTY	739	42%
larceny	256	32%
burglary	177	53%
unlawful entry	0	--
auto theft	67	34%
other	239	46%
VICTIMLESS	135	61%
sex	1	0%
drugs	126	59%
gambling	8	100%
OTHER	122	29%
weapons	5	40%
bail	29	76%
other	88	13%
ALL	1,276	37%

Table II.2b
DISPOSITION BY CRIME TYPE
Indianapolis

CRIME	# of Arrests	Guilty
ROBBERY	300	58%
VIOLENT	298	48%
homicide	80	68%
sexual assault	81	41%
aggravated assault	87	40%
simple assault	6	0%
other	44	39%
PROPERTY	1208	46%
larceny	393	35%
burglary	523	58%
unlawful entry	11	0%
auto theft	178	41%
other	103	43%
VICTIMLESS	478	36%
sex	2	0%
drugs	471	36%
gambling	5	20%
OTHER	110	22%
weapons	65	14%
bail	14	64%
other	31	19%
ALL	2394	44%

Table II.2c
DISPOSITION BY CRIME TYPE
Los Angeles

CRIME	# of Arrests	Guilty
ROBBERY	863	68%
VIOLENT	1065	64%
homicide	192	70%
sexual assault	201	68%
aggravated assault	561	61%
simple assault	0	--
other	111	65%
PROPERTY	1835	72%
larceny	370	67%
burglary	964	73%
unlawful entry	1	100%
auto theft	310	72%
other	190	78%
VICTIMLESS	1621	51%
sex	31	61%
drugs	1296	59%
alcohol	33	73%
gambling	261	10%
OTHER	143	65%
weapons	100	62%
bail	2	100%
other	41	71%
ALL	5527	64%

Table II.2d
DISPOSITION BY CRIME TYPE
Manhattan

CRIME	# OF ARRESTS	GUILTY
ROBBERY	1306	52%
VIOLENT	3297	39%
homicide	166	50%
sexual assault	227	37%
aggravated assault	1538	46%
simple assault	1012	21%
other	354	54%
PROPERTY	9332	63%
larceny	5773	63%
burglary	1795	70%
unlawful entry	473	50%
auto theft	67	34%
other	1224	60%
VICTIMLESS	14034	81%
sex	8452	92%
drugs	3972	56%
gambling	1610	87%
OTHER	2252	55%
weapons	1034	54%
bail	102	52%
other	1116	56%
ALL	30221	68%

Table II.2e
DISPOSITION BY CRIME TYPE
New Orleans

CRIME	# of Arrests	Guilty
ROBBERY	824	32%
VIOLENT	1651	24%
homicide	396	23%
sexual assault	188	23%
aggravated assault	751	19%
simple assault	227	47%
other	89	25%
PROPERTY	3753	47%
larceny	1078	29%
burglary	880	47%
unlawful entry	5	100%
auto theft	34	41%
other	1756	57%
VICTIMLESS	2709	45%
sex	192	67%
drugs	2446	44%
alcohol	1	0%
gambling	70	21%
OTHER	833	42%
weapons	489	50%
bail	125	46%
other	219	21%
TOTAL	9770	41%

Table II.2f
DISPOSITION BY CRIME TYPE
Salt Lake

CRIME	# of Arrests	Guilty
ROBBERY	200	36%
VIOLENT	507	32%
homicide	79	40%
sexual assault	99	39%
aggravated assault	214	24%
simple assault	79	34%
other	36	39%
PROPERTY	1397	49%
larceny	442	44%
burglary	497	55%
unlawful entry	10	20%
auto theft	200	44%
other	248	51%
VICTIMLESS	898	39%
sex	13	31%
drugs	829	39%
alcohol	38	23%
gambling	18	83%
OTHER	449	26%
weapons	82	38%
bail	185	13%
other	182	34%
TOTAL	3451	40%

Table II.2g
DISPOSITION BY CRIME TYPE
Washington, D.C.

CRIME	# OF ARRESTS	GUILTY
ROBBERY	1,572	41%
VIOLENT	2,724	25%
homicide	120	63%
sexual assault	282	29%
aggravated assault	1,525	24%
simple assault	739	21%
other	58	19%
PROPERTY	5,320	37%
larceny	2,606	35%
burglary	1,038	51%
unlawful entry	482	17%
auto theft	476	29%
other	718	39%
VICTIMLESS	3,111	45%
sex	1,576	44%
drugs	1,155	46%
gambling	380	45%
OTHER	2,053	39%
weapons	821	48%
bail	918	34%
other	314	31%
ALL	14,780	37%

of sexual assault, for example, are much more difficult to convict than others. Consequently, great care must be taken in interpreting these rates. The implications of this are discussed more fully later. For the present, the reader should bear in mind that the inherent convictability of an offense is a multidimensional concept that reflects the relative ease or difficulty in obtaining a conviction, having to do with witnesses, evidence, and judicial and police policies and procedures.

The relationship between the victim and the defendant is a less nebulous variable. The existence of a prior relationship between victim and defendant affects the extent to which such offenses are reported to the police, pursued in an investigative sense by the police, and accepted for prosecution by prosecutors, grand juries, and judges. Almost always the data show that a prior relationship on ther part of the victim and the defendant is related to lower conviction rates and lower sentence severity.

As shown in Tables II.3a through II.3d, offenses in which the victim and defendant were "friends or acquaintances" were convicted from half as often to 60 percent as often as offenses in which they were strangers. When a family relationship existed, such offenses were convicted from less than a quarter as often to just under half as often as offenses involving strangers. This finding, which holds across most categories of crime, has been well documented in other studies, not only in regard to the conviction outcome, but in related processes as well, such as witness cooperation (Forst, et al., 1977; Cannavale, 1976; Vera,, 1977).

Table II.3a
CONVICTION RATE, BY RELATIONSHIP AND CRIME GROUP
Cobb County

CRIME GROUP	NON STRANGER		STRANGER		UNKNOWN		NOT INDICATED	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	3	0%	6	67%	10	50%	19	47%
VIOLENT	111	9%	26	8%	53	11%	52	14%
PROPERTY	130	20%	136	59%	253	37%	220	49%
VICTIMLESS	2	50%	13	54%	84	63%	36	58%
ALL OTHER	44	2%	4	75%	32	47%	42	38%
ALL OFFENSES	290	13%	185	53%	432	40%	369	44%

Table II.3b
CONVICTION RATE, BY RELATIONSHIP AND CRIME GROUP
Indianapolis

CRIME GROUP	Family		Friend/Acquaintance		Stranger		Unknown		Not Indicated*	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	1	100%	16	56%	178	73%	54	65%	51	0%
VIOLENT	28	71%	53	64%	83	71%	46	63%	88	0%
PROPERTY	2	100%	26	69%	186	83%	460	82%	534	0%
VICTIMLESS	0	---	1	100%	22	86%	227	66%	228	0%
ALL OTHER	0	---	1	0%	6	83%	26	73%	77	0%
ALL OFFENSES	31	74%	97	64%	475	77%	813	75%	978	0%

* The absence of conviction for this group of cases reflects the fact that prosecution was declined and additional data on these cases were not entered into PROMIS.

Table II.3c
CONVICTION RATE, BY RELATIONSHIP AND CRIME GROUP
New Orleans

CRIME GROUP	FAMILY		FRIEND/ACQUAINTANCE		STRANGER		UNKNOWN		NOT INDICATED		VICTIMLESS	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	14	7%	142	21%	446	37%	180	26%	16	38%	26	62%
VIOLENT	200	16%	616	19%	456	35%	273	25%	55	9%	51	35%
PROPERTY	88	19%	603	37%	1,709	53%	1,040	45%	95	37%	218	50%
VICTIMLESS	18	72%	107	56%	367	52%	535	43%	68	28%	1,613	44%
ALL OTHER	42	14%	79	35%	183	50%	200	47%	26	19%	304	40%
ALL OFFENSES	362	19%	1,547	30%	3,161	48%	2,228	41%	260	27%	2,212	44%

Table II.3d
CONVICTION RATE, BY RELATIONSHIP AND CRIME GROUP
Washington, D.C.

CRIME GROUP	FAMILY		FRIEND/ACQUAINTANCE		STRANGER		OTHER		NOT INDICATED	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	14	29%	178	30%	933	45%	249	39%	198	34%
VIOLENT	300	17%	1,028	20%	762	35%	324	29%	310	26%
PROPERTY	88	26%	575	32%	2,762	39%	1,022	36%	873	36%
VICTIMLESS	18	28%	37	22%	1,642	44%	480	42%	934	49%
ALL OTHER	25	20%	90	39%	717	39%	518	34%	703	44%
ALL OFFENSES	445	20%	1,908	25%	6,816	41%	2,593	36%	3,018	41%

This confirmation of past findings reinforces what we already know--that our means for handling offenses that involve acquainted or related victims and defendants are inadequate. This does not necessarily mean that it is desirable to increase the conviction rates for such offenses--there are valid reasons why attrition is appropriate. The real question concerns why such cases are handled by the prosecutor rather than being referred for other action. Some jurisdictions do have special procedures for handling such cases, but most do not. Prosecution often does little to insure that the specific problems that led to the arrest will not recur. Given that, perhaps more attention should be paid to subjecting such cases to some process other than criminal prosecution, such as those offered by a special arbitration unit, citizen complaint center, or other non-criminal justice entity.

C. FACTORS WITHIN REACH OF THE POLICE

In this section, we focus our attention on three factors over which the police tend to have some control: witnesses, recovery of evidence, and the time that elapses between the offense and the arrest.

1. Witnesses

In discussing the importance of lay witnesses, we are referring both to victims and to other lay witnesses. Their cooperation is necessary in reporting the offense, verifying to the police and prosecutor that the offense took place, and demonstrating to the court the defendant's culpability. Very often the police officer represents a lay witness's first contact with the criminal justice system. The treatment

witnesses receive plays a significant role in determining whether they will cooperate with the authorities, as well as the amount of satisfaction and confidence they will have with respect to the police and others in the criminal justice community. Consequently, it is incumbent upon the police officer to ensure that the first contact does not add to any sense of doubt or insecurity that witnesses may have about becoming involved in a case.

The opportunity for a significant police role in this regard has been demonstrated in the literature. Cannavale (1976), for example, found many instances in which witnesses were questioned in front of the suspect. Consequently, witnesses often gave false names and addresses to prevent the suspect from knowing their identities and where they could be located. Additional problems may exist in that the police do not give other potential witnesses an opportunity to contribute--by leaving the scene too soon or by neglecting to canvass the immediate area for additional witnesses. The greatest opportunity for obtaining information about an offense exists immediately after the offense has occurred--before witnesses have an opportunity to disappear or to forget. Thus, the police play a vital role in seeing to it that witnesses are located and their cooperation is obtained.

The findings of this study are indeed consistent with the notion that witnesses greatly enhance the probability of conviction. The data suggest that having witnesses usually was significantly better than no witnesses at all. In the aggregate, cases having at least one witness were significantly more

likely to result in conviction than cases recording no witnesses at all--in Cobb County, Indianapolis, Los Angeles, and New Orleans. In the aggregate, cases having at least two witnesses were significantly more likely to result in conviction than cases having fewer than two witnesses, with the exception of Manhattan. In Manhattan, having at least one witness was significantly better than having no witnesses at all, except for victimless crimes.

However, as shown in Tables II.4a through II.4g, there are a number of exceptions. For victimless crimes in Manhattan, Salt Lake, Los Angeles, and Washington, having one (one or more for Manhattan) witness was associated with lower conviction rates than having no witnesses at all. In Salt Lake, all specific offense categories (i.e., excluding the "all other" category) showed arrests with a single witness as being less likely to result in conviction than arrests with no witnesses at all. In Washington, D.C., in addition to victimless crimes, violent crimes with one witness result in conviction less often than violent crimes with no witnesses. There are a number of other instances for which the primary effect (i.e., witnesses enhancing the probability of conviction) does not occur--the differences were insignificant.

We infer, therefore, that the value of witnesses is not uniformly related to their presence or absence. Rather, it would appear that their value lies more in their ability to corroborate the facts about the offense, as supported by other witnesses. The testimony of a single witnesses is not always enough to convict. Many cases that have only a single witness

are deemed insufficient for prosecution and are rejected. In fact, that one person testifies about an offense may be worse than no lay witnesses at all. One lay witness may cloud the facts about the case, causing doubt in the minds of those evaluating the merit of the case. With two witnesses saying similar things, the necessary element of corroboration is present and enhances the probability both that the case will be prosecuted and that it will end in conviction.

We look next at the relationship between number of witnesses and conviction rates, by crime group, in each of the jurisdictions.

Cobb County (Table II.4a). With one exception (violent crimes), having one witness appears better than having no witness. With one witness, conviction rates are significantly enhanced, especially in property offenses; for the other offenses, the number of cases was too small to warrant such inferences.

Indianapolis (Table II.4b). This jurisdiction shows a virtually consistent pattern: one witness is better than none, and two or more enhance conviction even more (with the exception of "all other" crimes). However, as with Cobb County, the fact that a large proportion of cases had no reported witnesses casts some doubt on the precise reliability of the numbers.

Los Angeles (Table II.4c). For the aggregate of all offenses, the rate of conviction increases from 61 percent (no witness) to 66 percent (one witness), to 70 percent (two or more witnesses). But, taking the various crime categories

Table II.4a
CONVICTION RATE, BY WITNESSES AND CRIME GROUP
Cobb County

CRIME GROUP	NO REPORTED WITNESSES		ONE WITNESS		TWO OR MORE	
	# OF ARRESTS	RATE	# OF ARRESTS	RATE	# OF ARRESTS	RATE
ROBBERY	14	21%	8	63%	16	63%
VIOLENT	168	3%	16	0%	58	35%
PROPERTY	398	19%	89	52%	252	73%
VICTIMLESS	122	57%	6	83%	7	100%
ALL OTHER	96	25%	7	43%	19	42%
ALL OFFENSES	798	22%	126	47%	352	65%

Table II.4b
CONVICTION RATE, BY WITNESSES AND CRIME GROUP
Indianapolis

CRIME GROUP	NO REPORTED WITNESSES		ONE WITNESS		TWO OR MORE	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	36	6%	84	52%	180	72%
VIOLENT	71	9%	69	48%	158	65%
PROPERTY	394	3%	350	56%	464	75%
VICTIMLESS	446	33%	18	67%	14	79%
ALL OTHER	78	3%	14	79%	18	61%
ALL OFFENSES	1025	17%	538	55%	834	72%

individually, there is no clear-cut pattern, with the exception of victimless crimes, in having one witness or more than one. In the victimless crime category it does; a 48 percent rate (one witness) increases to 67 percent (two or more witnesses). Again, the large number of arrests reported to have no witnesses raises questions about the precise accuracy of the numbers here.

Manhattan (Table II.4d). The data base for Manhattan indicates whether there were or were not witnesses, but not the number of witnesses involved. In four of the five categories, the conviction rate increases with one or more witnesses: robbery (31 to 54 percent); violent crime (31 to 44 percent); property crime (48 to 72 percent), and all others (54 to 57 percent). In victimless crime cases, the rate declines from 8[illegible] percent to 76 percent. Inasmuch as "victimless" is the most numerous crime category, the rate for all offenses declines from 70 to 63 percent.

New Orleans (Table II.4e). Given one witness, conviction rates jump dramatically, although the large number of reported arrests for robbery without witnesses leads one to view these numbers with some suspicion. For all offenses, the rate increases from 22 percent to 81 percent--almost 60 percent. The influence of two or more witnesses is systematic but not large for each of the major crime categories: robbery (7 percent), other violent (3 percent), other property (1 percent), and victimless (7 percent).

Salt Lake County (Table II-4f). In Salt Lake, the number of cases with no witnesses reported was small, especially for

Table II.4c
CONVICTION RATE, BY WITNESSES AND CRIME GROUP
Los Angeles

CRIME GROUP	No Reported Witnesses		One Witness		Two or More	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	525	67%	218	70%	120	68%
VIOLENT	476	61%	295	64%	294	70%
PROPERTY	1053	73%	467	72%	315	71%
VICTIMLESS	1314	50%	188	48%	86	67%
ALL OTHER	117	64%	36	72%	23	70%
ALL OFFENSES	3485	61%	1204	66%	838	70%

Table II.4d
CONVICTION RATE, BY WITNESSES AND CRIME GROUP
Manhattan

CRIME GROUP	NO REPORTED WITNESSES		ONE OR MORE WITNESSES*	
	# OF ARRESTS	RATE	# OF ARRESTS	RATE
ROBBERY	126	31%	1180	54%
VIOLENT	1266	31%	2031	44%
PROPERTY	3565	48%	5767	72%
VICTIMLESS	13756	82%	278	76%
ALL OTHER	1714	54%	538	57%
ALL OFFENSES	20427	70%	9794	63%

*Detail unavailable for further refinement.

Table II.4e
CONVICTION RATE, BY WITNESSES AND CRIME GROUP
New Orleans

CRIME GROUP	NO REPORTED WITNESSES		ONE WITNESS		TWO OR MORE	
	# OF ARRESTS	RATE	# OF ARRESTS	RATE	# OF ARRESTS	RATE
ROBBERY	526	6%	81	72%	217	79%
VIOLENT	1196	7%	122	68%	333	71%
PROPERTY	1910	10%	666	84%	1177	85%
VICTIMLESS	2367	40%	169	81%	172	88%
ALL OTHER	629	29%	79	82%	126	77%
ALL OFFENSES	6628	22%	1117	81%	2025	82%

Table II.4f
CONVICTION RATE, BY WITNESSES AND CRIME GROUP
Salt Lake

CRIME GROUP	NO REPORTED WITNESSES		ONE WITNESS		TWO OR MORE	
	# OF ARRESTS	RATE	# OF ARRESTS	RATE	# OF ARRESTS	RATE
ROBBERY	20	40%	66	8%	114	52%
VIOLENT	34	38%	247	10%	226	55%
PROPERTY	93	41%	548	22%	756	69%
VICTIMLESS	86	33%	404	19%	370	63%
ALL OTHER	196	12%	172	16%	119	63%
ALL OFFENSES	429	26%	1437	18%	1585	64%

robbery and other violent crime categories. In each of the five major categories, the probability of conviction jumps by about 45 percentage points when the number of witnesses increases from one to two or more.

Washington, D.C. (Table II-4g). With two exceptions, having one witness does not enhance the probability of conviction. Conviction rates for property crime and the "all other" category appear to be enhanced with one witness, but the other categories show decreases of from 1 to 6 percent. With the exception of the "all other" category, having two or more witnesses enhances the probability of conviction.

2. Physical Evidence

The question of the effect of physical evidence is more difficult to assess. PROMIS does provide for an indicator of whether evidence was recovered. However, as indicated in an earlier section, these data were available from only two jurisdictions in a useful form. They were available from two others, but in a form so limited as to make its value questionable.

For Cobb County (Table II.5a), evidence was indicated as present if the case jacket on file at the District Attorney's office contained reference to evidence recovered by the police at or near the scene of the crime. For Manhattan (Table II.5b), evidence was indicated as present if the PROMIS case record showed a property registration number (used for ownership tracking of property recovered by the police). While we do draw inferences from the existence of an evidence indicator, we should point out that, except in Cobb County, where that

Table II.4g
CONVICTION RATE, BY WITNESSES AND CRIME GROUP
Washington, D.C.

CRIME GROUP	NO REPORTED WITNESSES		ONE WITNESS		TWO OR MORE	
	# OF ARRESTS	RATE	# OF ARRESTS	RATE	# OF ARRESTS	RATE
ROBBERY	211	37%	685	36%	676	47%
VIOLENT	536	24%	922	18%	1266	32%
PROPERTY	1594	31%	1898	36%	1828	43%
VICTIMLESS	2906	45%	145	39%	60	53%
ALL OTHER	1589	38%	271	45%	193	43%
ALL OFFENSES	6836	38%	3921	33%	4023	40%

Table II.5a
CONVICTION RATE, BY EVIDENCE AND CRIME GROUP
Cobb County

CRIME GROUP	EVIDENCE		NO EVIDENCE		NOT INDICATED	
	# OF ARRESTS	RATE	# OF ARRESTS	RATE	# OF ARRESTS	RATE
ROBBERY	11	64%	8	25%	21	43%
VIOLENT	38	16%	152	8%	53	13%
PROPERTY	242	55%	278	25%	246	48%
VICTIMLESS	89	62%	10	60%	39	56%
ALL OTHER	13	46%	69	19%	47	34%
ALL OFFENSES	393	53%	517	20%	406	42%

Table II.5b
CONVICTION RATE, BY EVIDENCE AND CRIME GROUP
Manhattan

CRIME GROUP	EVIDENCE		NO EVIDENCE	
	# OF ARRESTS	RATE	# OF ARRESTS	RATE
ROBBERY	642	56%	664	47%
VIOLENT	893	50%	2404	35%
PROPERTY	5384	68%	3948	56%
VICTIMLESS	4911	65%	9123	90%
ALL OTHER	1232	59%	1020	51%
ALL OFFENSES	13,062	65%	17,159	71%

information was hand collected, such physical evidence may not have been recovered by the arresting officer(s). Here we are more able to say whether having evidence, regardless of the source, is associated with the likelihood of conviction.

For Cobb County, we found that cases with evidence were more likely to be convicted than cases without--overall, more than two and one-half times as likely. For Manhattan, in cases of robbery, violent, and property crimes, physical evidence was associated with higher conviction rates. Also in Manhattan, cases of victimless crimes with evidence were significantly less likely to be convicted.

We found this latter result to be most peculiar, and proceeded to examine it more carefully. We partitioned "victimless" crime into its three major constituents--consensual sex (pornography and prostitution), drug offenses, and gambling. As expected, evidence does enhance the probability of conviction for gambling offenses. However, evidence was not found to be related to conviction rate for drug offenses, and it showed a negative relationship with conviction rate for consensual sex offenses. Two interesting things were happening, both due to an interaction between crime and evidence.

For drug offenses, evidence is almost always associated with the case (for 85 percent of the drug arrests in Manhattan evidence was indicated as having been collected). It is not the presence of evidence that helps get a conviction, rather it is the quality of that evidence, as well as the manner by which

it was obtained. Were there no evidence, there probably would not have been an arrest in most instances. Consequently, evidence does not affect the conviction rate for drug offenses in a way that is measurable within this study.

Consensual sex offenses, on the other hand, showed a negative relationship with evidence--those with evidence were less likely to be convicted. This category, however, is not completely homogeneous. It was noted that for pornography cases, which have a relatively lower inherent convictability, evidence is almost always a requisite. For soliciting, which has a higher inherent rate of conviction, evidence is almost never a consideration. Consequently, we have a coincidence of low convictability cases that almost always occur with evidence and high convictability cases that almost never involve evidence. This coincidence combines to weight the opposite cells in a contingency table and makes it appear that there is a strong negative evidence effect. If, in fact, evidence contributes in pornography cases, it would have to be qualitatively assessed <u>within</u> such cases to determine the value, given that, by the measure we are using it always occurs (i.e., there is no variation on which to stratify). Thus, the apparent effect of evidence in the case of "victimless" crimes is an artifact of the data--disguised due to the heterogeneity of that crime category.

3. <u>Response Time</u>

A third factor that is at least somewhat within the control of the police is the elapsed time between the offense and the

arrest. Here, as well, there are problems of measurement. We found, for example, in many jurisdictions that it was common practice to list the same time for both the arrest and the offense. Clearly, such should be the case only if the officer is at the scene at the time of the offense. We know that, in general, arrests do not result from such proactive discovery, but rather from reacting to calls for assistance. (Black, 1967) Consequently, the "no delay" category listed in Tables II.6a through II.6e is somewhat ambiguous. Based on this, it would be rather tenuous to infer much significance from differences between a "no delay" and a "1-5 minute" delay. Considerably more believable are those cases that list delays of other than zero. Moreover, we should also be mindful that cases that take longer than a day for an arrest to occur are more likely to be warrant arrests--situations in which the case is investigated, a warrant is obtained, and an arrest is made. In such cases, a longer delay may represent <u>more</u> processing and the existence of a stronger case. Consequently, for purposes of comparison here, we will examine only cases wherein delay is likely to represent actual delay rather than an opportunity for other kinds of enhancement--e.g., investigation and the issuance of a warrant.

The discussion that follows focuses on cases in which there were measured delays of 1 to 5 minutes, 6 to 30 minutes, or between one-half and 24 hours. We have these data for five of the seven jurisdictions. Cobb County's data are subject to the time-reporting caveat noted above.

With the exception of Indianapolis, all of the data show arrests made between 1 and 30 minutes to be more likely to result in conviction than arrests made later (one-half to 24 hours). Individual and isolated exceptions were discovered; however, in general, arrests made within 5 minutes were even more likely to result in conviction than arrests taking longer. Comments on response time in the five jurisdictions follow.

Cobb County (Table II.6a). The numbers are too small to draw any reliable inferences.

Indianapolis (Table II.6b). As noted above, Indianapolis departs from the norm with arrests made within 30 minutes. For the three categories within 30 minutes, the rate of conviction is 41 percent. For the two categories over 30 minutes, the rate is 50 percent.

Manhattan (Table II.6c). Conviction rates in Manhattan decline for each major crime group as the delay grows long. The sharpest drop is in violent crimes: the conviction rate declines from 50 percent when the arrest is made within five minutes of the offense to 28 percent when the arrest follows the offense by at least 24 hours.

Salt Lake (Table II.6d). For Salt Lake, the number of arrests that were reported to have been made with no delay, or with the delay unknown, amounted to 67 percent of all arrests. For the 1,123 remaining arrests spread across the five crime categories and four remaining delay categories, no clear pattern emerged for the effect of delay on conviction rates.

Table II.6a
CONVICTION RATE, BY TIME AND CRIME GROUP
Cobb County

CRIME GROUP	NO DELAY†		1-5 MINUTES		6-30 MINUTES		½-24 Hours		1 DAY +		UNKNOWN	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	0	--	0	--	2	100%	6	50%	11	36%	19	47%
VIOLENT	4	25%	0	--	1	0%	62	13%	83	10%	92	9%
PROPERTY	8	63%	1	0%	8	25%	85	49%	403	39%	234	44%
VICTIMLESS	20	55%	0	--	3	100%	21	43%	23	78%	68	60%
ALL OTHER	1	100%	0	--	1	0%	16	25%	51	33%	53	25%
ALL OFFENSES	33*	55%	1*	0%	15*	47%	190	35%	571	36%	466	37%

*The number of arrests is too small to be meaningful.

†"No Delay" category is subject to question due to measurement problems; see accompanying text for comments.

Table II.6b
CONVICTION RATE, BY TIME AND CRIME GROUP
Indianapolis

CRIME GROUP	NO DELAY		1-5 MINUTES		6-30 MINUTES		½-24 Hours		1 DAY +	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	68	56%	11	64%	23	65%	46	54%	125	60%
VIOLENT	93	46%	5	20%	20	20%	56	41%	91	60%
PROPERTY	553	46%	45	44%	80	49%	190	34%	207	60%
VICTIMLESS	384	34%	9	11%	11	18%	22	36%	15	40%
ALL OTHER	76	18%	2	0%	3	33%	11	9%	7	86%
ALL OFFENSES	1174	41%	72	40%	137	45%	325	37%	445	60%

†"No Delay" category is subject to questions due to measurement problems; see accompanying text for comments.

Table II.6c
CONVICTION RATE, BY TIME AND CRIME GROUP
Manhattan

CRIME GROUP	NO DELAY+		1-5 MINUTES		6-30 MINUTES		½-24 Hours		1 DAY +		UNKNOWN	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	359	59%	161	57%	220	47%	288	50%	197	47%	81	40%
VIOLENT	951	50%	195	49%	474	37%	802	31%	689	28%	186	47%
PROPERTY	4,907	67%	668	66%	1,236	60%	1,300	57%	668	48%	553	65%
VICTIMLESS	10,147	81%	746	77%	1,139	85%	930	86%	254	80%	818	83%
ALL OTHER	1,472	55%	169	63%	187	62%	198	47%	108	37%	118	64%
ALL OFFENSES	17, 836	73%	1,939	68%	3,256	65%	3,518	58%	1,916	44%	1,756	70%

+"No Delay" category is subject to questions due to measurement problems; see accompanying text for comments.

Table II.6d
CONVICTION RATE, BY TIME AND CRIME GROUP
Salt Lake

CRIME GROUP	NO DELAY+		1-5 MINUTES		6-30 MINUTES		½-24 Hours		1 DAY +		UNKNOWN	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	25	8%	5	40%	15	33%	45	40%	49	53%	61	31%
VIOLENT	139	20%	6	17%	24	71%	87	28%	65	55%	186	30%
PROPERTY	310	43%	34	65%	71	65%	130	53%	256	62%	596	43%
VICTIMLESS	486	31%	9	56%	13	39%	15	53%	74	51%	263	51%
ALL OTHER	124	27%	11	55%	18	50%	27	33%	169	14%	138	33%
ALL OFFENSES	1,084	32%	65	56%	141	58%	304	42%	613	46%	1,244	41%

+"No Delay" category is subject to questions due to measurement problems; see accompanying text for comments.

Washington, D.C. (Table II.6e). A mixed pattern emerges in the District of Columbia: in the aggregate, higher conviction rates for arrests made in less than 30 minutes, followed by a lower rate for arrests made from 30 minutes to 24 hours after the offense. Over 24 hours, the rate increases.

4. Response Time and Witnesses and Evidence

The high rate of conviction for arrests made within five minutes of the offense led us to theorize a relationship between response time and the likelihood of recovering evidence and obtaining witnesses. It was hypothesized that the sooner the officer arrives at the scene, the more likely it is that witnesses will still be available or that evidence useful in establishing the necessary elements of the offense will not have been disturbed. Whether this is empirically the case is examined below.

Data on time and witnesses were available for Cobb County, Indianapolis, Manhattan, Salt Lake, and Washington, D.C. (See Tables II.7a through II.7e.) Data on time and evidence were sufficient for our purposes only for Cobb County and Manhattan (Tables II.8a and II.8b). In each instance, we looked at the relationship between these factors in the aggregate, as well as across crime categories. That analysis found several data artifacts (discussed below) that yielded some counterintuitive findings. In general, however, the aggregate and detailed data led consistently to the same conclusions. Because the multiple crossings of variables yielded meaningless tables (when controlling for crime), the data presented here have been aggregated. Where required, aggregate data are supplemented by a discussion of detailed findings.

Table II.6e
CONVICTION RATE, BY TIME AND CRIME GROUP
Washington, D.C.

CRIME GROUP	NO DELAY+		1-5 MINUTES		6-30 MINUTES		½-24 Hours		1 DAY +		UNKNOWN	
	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate	# of Arrests	Rate
ROBBERY	108	31%	237	46%	294	45%	353	42%	556	37%	24	38%
VIOLENT CRIME	304	21%	332	24%	634	24%	824	22%	560	33%	70	40%
PROPERTY CRIME	915	28%	1,033	38%	1,165	39%	1,072	36%	1,028	43%	107	32%
VICTIMLESS CRIME	892	44%	1,331	44%	473	51%	259	39%	128	44%	28	50%
ALL OTHER	608	40%	305	47%	161	37%	224	34%	715	37%	40	48%
ALL OFFENSES	2,827	35%	3,238	41%	2,727	38%	2,732	33%	2,987	39%	269	39%

+"No Delay" category is subject to question due to measurement problems; see accompanying text for comments.

Table II.7a
WITNESSES, BY TIME
Cobb County

# of Witnesses	No Delay	1-5 Minutes	6-30 Minutes	½-24 Hours	1 Day+	Unknown
No Witnesses	73%	100%	40%	58%	60%	68%
One Witness	12%	--	20%	13%	11%	7%
Two or More	15%	--	40%	29%	29%	25%
N	33	1	15	190	573	469

Table II.7b
WITNESSES, BY TIME
Indianapolis

# of Witnesses	No Delay	1-5 Minutes	6-30 Minutes	½-24 Hours	1 Day +	Unknown
No Witnesses	58%	35%	33%	31%	15%	43%
One Witness	20%	24%	28%	28%	21%	15%
Two or More	22%	42%	39%	41%	58%	42%
N	1174	72	137	325	445	241

Table II.7c
WITNESSES, BY TIME
Salt Lake

# of Witnesses	No Delay	1-5 Minutes	6-30 Minutes	½-24 Hours	1 Day+	Unknown
No Witnesses	9%	13%	5%	8%	29%	9%
One Witness	56%	24%	34%	39%	16%	41%
Two or More	35%	63%	61%	53%	55%	50%
N	1134	68	148	314	646	1435

Table II.7d
WITNESSES, BY TIME
Manhattan

# of Witnesses	No Delay*	1-5 Minutes	6-30 Minutes	½-24 Hours	1 Day +	Unknown
No Witnesses	80%	61%	56%	50%	46%	70%
One or More Witnesses	20%	39%	44%	50%	54%	30%
N	19302	2115	3664	3856	2165	1897

* "No Delay" category is subject to question due to measurement problem

Table II.7e
WITNESSES, BY TIME
Washington, D.C.

# of Witnesses	No Delay*	1-5 Minutes	6-30 Minutes	½-24 Hours	1 Day +	Unknown
No Witnesses	69%	64%	38%	25%	33%	42%
One Witness	20%	20%	29%	33%	30%	30%
Two or More	11%	16%	33%	42%	37%	29%
N	3258	3753	2197	3148	3470	308

* "No Delay" category is subject to question due to measurement problem.

Table II.8a
EVIDENCE, BY TIME
Cobb County

Tangible Evidence	No Delay	1-5 Minutes	6-30 Minutes	½-24 Hours	1 Day+	Unknown
Evidence	70%	100%	73%	47%	31%	19%
No Evidence	30%	0%	27%	53%	44%	32%
Not Indicated	--	--	--	--	25%	49%
N	33	1	15	190	573	469

Table II.8b
EVIDENCE, BY TIME
Manhattan

Tangible Evidence	No Delay	1-5 Minutes	6-30 Minutes	½-24 Hours	1 Day+	Unknown
Evidence	43%	60%	45%	41%	19%	41%
No Evidence	57%	40%	55%	59%	81%	59%
N	19302	2115	3564	3856	2165	1897

In Cobb County and Salt Lake, shorter delays between offense and arrest time were associated with a higher incidence of multiple witnesses, ignoring (as indicated above) time categories that involved measurement problems. This tended to support our hypothesis that shorter delays lead to a higher incidence of witness availability. In Manhattan, the aggregate data indicated that longer delays were more likely to produce witnesses. However, that result was produced as an artifact of aggregation--controlling for crime eliminated the apparent contradiction. In Washington, D.C., however, there existed a counterintuitive relationship that persisted even when controlling for crime. In contrast to Cobb County and Salt Lake, especially for violent and property offenses, longer periods of elapsed time between the offense and the arrest were associated with a greater incidence of multiple witnesses in Washington, D.C. This finding bears out what was found using the 1974 data, as reported in What Happens After Arrest? The results for Indianapolis were mixed; two or more witnesses were significantly more likely after 24 hours, but there were no differences among the 1-5 minutes, 6-30 minutes, and 1/2-24 hour intervals.

As before, we speculate that the positive association between time and witnesses is an indication that arrests tend not to be made in the first place when witness support is lacking. Arrests made after a longer period of time may be made in many instances precisely because more than one witness was available.

We were able to look at evidence and time only for Cobb County and Manhattan--the quality of the evidence variable was

too poor for inferences about other jurisdictions. In both jurisdictions, ignoring the "no delay" category, there was a strong relationship between time and evidence--the shorter the delay, the more likely evidence was to be recovered. This strongly supports the 1974 finding from Washington, D.C.

In short, we infer that time's influence on the conviction rate exists primarily because a shorter delay increases the probability of evidence recovery. Additional evidence (Salt Lake and Cobb County) would indicate that some of time's effect also exists because it enhances the probability of obtaining witnesses. Because of the strong witness effect in Washington, D.C., however, a time-witness interaction does not necessarily result in the expected findings. Because of the difficulty in establishing cause and effect, we could not test to determine whether some marginal effect of time on witnesses existed. This does not mean, however, that longer delays lead to more witnesses, but rather that, in the case of longer delays, arrests will be made only if witnesses are available.

D. COMPARATIVE FINDINGS

In this section, by way of a summary, we juxtapose the major findings from What Happens After Arrest? and the replication analyses.

1. Witnesses and Convictability

> When the police manage to bring more cooperative witnesses to the prosecutor, the probability of conviction ... is significantly enhanced.

This finding was confirmed by our data for Cobb County, Indianapolis, Los Angeles, Manhattan (except for victimless

crimes), and New Orleans. The mixed findings in Salt Lake County and Washington, D.C., regarding having only one witness, should be noted in passing. The value of two or more witnesses was, however, confirmed in these two jurisdictions.

2. Physical Evidence and Convictability

> When the arresting officer manages to recover tangible evidence, the prosecutor is considerably more likely to convict the defendant.

The above effect was found to be 60 percent higher in robberies, 25 percent higher in other violent crimes, and 36 percent higher in nonviolent property offenses.

For Cobb County, we found that, for each crime category, cases with evidence were more likely to be convicted than cases without--overall, more than two and one-half times as likely.

For Manhattan, evidence was associated with higher conviction rates for robbery, violent crimes, and property offenses.

3. Response Time and Convictability

> When the police are able to make the arrest soon after the offense--especially in robberies, larcenies and burglaries--tangible evidence is more often recovered and conviction is ... more likely.

In the replication analyses for Cobb County, Manhattan, Salt Lake County, and Washington, D.C., arrests made between 1 and 30 minutes after the crime was committed were more likely to result in conviction than arrests made later (1/2 to 24 hours). In Indianapolis the results were mixed. In general, however, arrests made within 5 minutes of the offense were more likely to result in conviction than arrests taking longer.

4. Response Time and Witnesses

> More witnesses tend to be associated with cases in which the duration between offense and arrest is longer ... [because] arrests made after longer delays were frequently a product of the support of multiple witnesses.

In Washington, D.C. (during the replication period), longer amounts of elapsed time between the arrest and the offense were associated with a greater incidence of multiple witnesses.

In Cobb County, Salt Lake, and Manhattan (the latter only when controlling for crime type), the findings were contrary. Prompt arrest was significantly related to a higher incidence of multiple witnesses (or a greater likelihood of having any witnesses, in Manhattan).

5. Response Time and Evidence

> Prompt arrest in violent offenses ... does appear to influence the retrieval of tangible evidence [but it was not] a sufficient force to cause prompt arrest to be a substantial influence on the conviction rates....

For Cobb County and Manhattan, we found support for the conclusion that prompt arrest increases the likelihood of obtaining physical evidence. Arrests made soon after the offense occurred were systematically more likely to have evidence than arrests taking longer.

III. THE POLICE OFFICER AND ARREST CONVICTABILITY

In the 1974 study of Washington, D.C., arrests, we found that 15 percent of the arresting officers accounted for just over half of the arrests that resulted in conviction, and that 31 percent of the arresting officers accounted for no convictions at all. The fact that so many officers produced no convictions and that a small proportion of the department produced so many raised questions concerning arrest-conviction productivity. Is that kind of distribution unique to Washington, D.C., or does it exist elsewhere? Is the distribution significant, or could it have resulted because of chance? If not the latter, is the coexistence of exceptionally high and low arrest-conviction productivity related to something that the officers are doing, or is it more a matter of assignment and factors beyond the officers' control?

A. ARREST AND CONVICTION PROBABILITIES AND HYPOTHESES

To address the questions above, we began by analyzing arrest and conviction distributions for each jurisdiction using 1977-78 data. In each of the replication sites, we found distributions that were similar, but with varying amounts of concentration at the bottom and top. Table III.1 summarizes those findings. To address the question whether these distributions were the result of random process, a Monte Carlo technique was used to distribute both arrests and convictions among the arresting officers.* The results of that analysis provide

*The real numbers of arrests that ended in conviction and those that did not were randomly distributed among the actual number of officers.

a picture of how the concentrations would look if they had occurred entirely due to "chance."

Table III.1
ACTUAL AND RANDOM DISTRIBUTIONS OF ARRESTS AND CONVICTIONS

Jurisdiction Name	Fraction With 50% Of the Convictions		Fraction With No Convictions	
	Actual	Random	Actual	Random
Cobb County	12.3%	22.4%	29.2%	23.3%
Indianapolis	17.0%	21.9%	37.4%	31.6%
Los Angeles	19.1%	23.1%	21.0%	22.0%
Manhattan	7.9%	33.9%	18.2%	0.0%
New Orleans	10.8%	29.3%	23.6%	4.7%
Salt Lake	14.0%	25.3%	25.1%	16.1%
Washington	12.4%	27.6%	26.9%	10.5%

In each jurisdiction, the proportion of officers making just over half of the arrests that resulted in conviction is lower than if the distribution process had been random. Similarly, the proportion of officers making arrests that resulted in no convictions is higher than that from a random process, except for Los Angeles. For jurisdictions other than Los Angeles and Indianapolis, the differences between actual and random officer distributions are significant at the .05 level.* We infer from this that some process or phenomenon other than randomness underlies the fact that so few officers account for so much of the arrest-conviction productivity, as defined above.

In Los Angeles, as pointed out earlier, all arrests rejected at screening are excluded from our officer data base.

*Statistically, the probability that items identified as "different" were taken from the same distributions, or said another way, the probability that they are not different, is .05 or 5 percent.

The result is that a number of officers' conviction rates are overestimated, and a number of officers whose arrests were all rejected at screening are excluded from the analysis. Because most non-convictions result from rejection at screening, this has the dual effect of overestimating the proportion getting half of the convictions and of underestimating the proportion receiving no convictions. Similar exclusions were made for Indianapolis as noted on page II-2. Therefore, interpretation of the Los Angeles and Indianapolis data should be approached with these factors in mind.

The purpose of this part of the analysis was to attempt to uncover the processes that explain why the distributions take the forms that they do. We considered several hypotheses:

-Particular officers are more adept in obtaining arrests that lead to conviction, due to special skills, training, or the use of special techniques.

-Police departments are structured in such a way that a disproportionate amount of opportunity to make arrests that result in conviction falls heavily upon a small but well-defined portion of the department. These officers might be defined by rank (detective, for example), geographical assignment, or by some other structural pattern that determines arrest productivity.

-Particular officers are able to select their arrests so as to maximize their individual conviction rates--i.e., by choosing to make arrests for crimes that are inherently easier to convict, and by choosing not to make arrests for crimes that are not as likely to result in conviction.

-Specific sets of attitudes toward police work are distributed in such a way that some officers are "high achievers" and others are "low achievers."

These four hypotheses summarize different possible explanations for the kinds of distributions identified. They relate to skill, opportunity, discretion, motivation. There are, of

course, a variety of combinations of these hypotheses. It is by no means necessary that these are even competing hypotheses --elements of each may play a role in any given officer's situation. The purpose of this analysis, then, is to measure those factors, where possible, and to determine whether they can explain variation in arrest convictability performance.

For each jurisdiction, we first identified all of the arresting officers, tallying the numbers of arrests, convictions, and witnesses for each arrest. We also produced weighted indicators of the quality of those arrests and convictions and measured the opportunity to make arrests. For each jurisdiction, the basic factors available for analysis were as follows:

- -Number of arrests
- -Number of convictions
- -Weighted number of convictions (sum of maximum sentences for each conviction)
- -Weighted number of arrests (sum of maximum sentences for each arrest)
- -Inherent convictability (weighted average conviction rate for each officer's mix of arrests)
- -Unit arrest rate (average number of arrests per officer within officer's unit of assignment)
- -Average number of lay witnesses per arrest

Additionally, for the Washington, D.C., Metropolitan Police Department, the Indianapolis Police Department, and the Salt Lake Police Department and Sheriff's Office, we were able to obtain the age, sex, department entry date, education, and marital status for each officer.

B. MEASUREMENTS OF ARREST PRODUCTIVITY

Police productivity can be measured by many criteria; these might include the number of arrests, the number of convictions, the conviction rate, citations, supervisory ratings, or citizen complaints against officers. The measure one chooses is largely determined by the nature of the topic being addressed. In this study, we are concerned with arrest convictability, which can be measured in several ways.

This study considers two ways of looking at arrest convictability--conviction rate (the simple conviction rate and a weighted conviction rate) and the weighted and unweighted number of convictions. The conviction rate is simply the proportion of an officer's arrests that results in a plea or finding of guilty to any charge. Even if an arrest consists of seven charges, only one of which (and perhaps the least serious) results in a conviction, that arrest is counted as a conviction. Thus, the simple conviction rate is the number of arrests that have any charges convicted divided by the total number of arrests. The weighted conviction rate is the total number of months of sentence the arrestees could receive (based on the top charges at conviction) divided by the total number of months of sentence the defendants could receive (based on the top charges at arrest). The weighted conviction rate takes into account both the seriousness of the charges and the incidence of conviction. Using the first measure, two officers with 50 percent conviction rates would be identical, regardless of the nature of the convicted charge. Using the weighted measure, an officer with one serious felony conviction

resulting from two serious felony arrests would be rated substantially higher than an officer with one less serious felony conviction resulting from the same two serious felony arrests. Thus, the second measure tells us not only how many, but also how "good" the convictions were.

In our analysis, both ratio and nonratio measures of arrest productivity are used. Ratio measures are useful in that they automatically control for a range of variation by specifying the amount of potential that is realized. Less useful, nonratio measures take on more or less significance depending upon the universe from which they are selected. Several other studies have used the number of arrests as a measure of arrest performance. They have been criticized in that they fail to take account of the quality of those arrests. Similarly, the number of convictions taken by itself is not complete in that it does not reflect how many opportunities for conviction actually existed (compare, for example, an officer with 5 convictions and 6 arrests with an officer with 10 convictions and 50 arrests: which one is more "successful"?). This study deals with that problem by using ratios and by controlling for the number of arrests when looking at convictions.

The conviction rate (weighted and unweighted), however, does not necessarily reflect the opportunity to make arrests, nor does it reflect the success of a given officer's arrests relative to that of other officers with arrests for similar offenses. Two measures generally available within this study were calculated to alleviate this gap: a unit arrest rate (the average number of arrests per officer within a given unit of

assignment) and the inherent convictability of an arrest (how often a particular offense is convicted). The unit arrest rate reflects the actual average arrest experience, allowing us to control for the opportunity to make arrests. This measure was available for most jurisdictions. The inherent convictability measure reflects the average convictability of an officer's mix of arrests, which is a suitable control in testing performance variation among officers.

1. Factors Related to Assignment

Here, we were interested in determining the extent to which variation in performance among officers was related to factors beyond the officer's control--such as assignment and the associated opportunity to make arrests, and the opportunity to make arrests for particular offenses.

The earlier study did not control for assignment in any rigorous manner. This study uses the unit of assignment indicated in PROMIS to test whether particular assignments were likely to yield greater numbers of arrests, which we use as a proxy for arrest opportunity. Almost universally, where such an indicator was available, different assignments showed considerably different opportunities for arrest--in terms of both quantity and quality (conviction number and rate). Taken by itself, the unit arrest rate was negatively correlated with conviction rate in New Orleans, Salt Lake, and Indianapolis. It was positively correlated with conviction rate in Manhattan and Washington, D.C. In each of these five cities, the correlation was significant (P .05). In Los Angeles the

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1 OF 2

correlation was negative but it was not statistically significant. A unit arrest rate was not available for Cobb County, because police units were not indicated in the data.

Controlling for inherent convictability (Table III.2), the unit arrest was significant (P .05) in Indianapolis, New Orleans, Salt Lake, and Manhattan. In each of the six jurisdictions except Manhattan, controlling for inherent convictability, the unit arrest rate was negatively correlated with conviction rate. From these varied findings, we draw several inferences.

First, being in a "high arrest" unit does not guarantee a high conviction rate--in fact, controlling for the arrest mix (via inherent convictability), officers in high arrest units in Indianapolis, Salt Lake and New Orleans had lower conviction rates. The degree to which the unit arrest rate determines an

Table III.2
CONVICTION RATE AS A FUNCTION OF UNIT ARREST RATE AND INHERENT CONVICTABILITY

CITY	UAR		EASE		R-SQUARE
Indianapolis	<.001	(-)	<.001	(+)	<.001 (.19)
Los Angeles	<.423	(-)	<.001	(+)	<.001 (.07)
Manhattan	<.001	(+)	<.001	(+)	<.001 (.13)
New Orleans	<.001	(-)	<.001	(+)	<.001 (.12)
Salt Lake	<.001	(-)	<.029	(+)	<.001 (.05)
Washington, D.C.	<.126	(-)	<.001	(+)	<.001 (.19)

UAR= Unit Arrest Rate EASE= Inherent Convictability

officer's conviction rate largely depends upon the implications of "more versus less" arrest activity for the jurisdiction in question. That is, does "more" mean more of the same kinds of arrests, or does "more" mean a larger volume of arrests that are easier to convict?

In New York, where units are primarily geographical rather than functional, officers in "high arrest" units coincidentally are in units that have arrests for offenses that are highly convictable. Beyond this, however, controlling for offense mix, officers still tend to get higher conviction rates than expected. As shown later, officers with more arrests tend to have more convictions, at the margin. Consequently, in Manhattan, having more arrests and being in a high arrest unit are associated with higher conviction rates. Apparently, the more active officers are indeed more successful in obtaining arrests that lead to conviction.

Second, there appears to be a work load effect in New Orleans, where we found a negative correlation between unit arrest rate and conviction rate, units identified in PROMIS were based on both geographical area and function (such as the vice squad). Officers with fewer arrests, other things being equal, tend to get higher conviction rates. In Salt Lake, where units are organized primarily around function, the same thing occurs. We would infer that officers with a narrower range and lower volume of arrest activity have more time and attention to devote to each arrest, the result being a greater probability of conviction.

This contrasts with Manhattan where, apparently, more active officers seem to have established a method of achieving higher conviction rates. Such may be due to the nature of those highly convictable arrests--consensual sex or gambling--wherein the offender usually pleads guilty. In such cases, arrest handling by an experienced officer may have an impact on whether the arrestee pleads guilty. Such officers may have established routines that are effective in convincing an offender that a plea is the easiest route. Without the benefit of a special class of highly convictable offenses, findings for Indianapolis, Salt Lake and New Orleans would indicate that a lighter work load, rather than the experience gained from a high volume of arrests, is a better index of arrest convictability.

Third, arrest mix is a significant determinant of conviction rate. As measured by inherent convictability it was always positively correlated with the conviction rate. Table III.3 shows the R-square between (unweighted) conviction rate and inherent convictability and number of arrests. Only in Cobb County did we fail to find a significant relationship between conviction rate and inherent convictability (both from zero-order correlation and when controlling for other factors). We can conclude, however, that, in general, part of the variation in conviction rate among officers is explained by variation in their mix of arrests--those with an "easier" mix tend to have significantly higher conviction rates.

An additional way of testing whether variation in conviction rate is explained by the opportunity to make arrests

Table III.3
SIMPLE CORRELATION BETWEEN CONVICTION RATE AND INHERENT CONVICTABILITY AND ARREST ACTIVITY

JURISDICTION	INHERENT CONVICTABILITY	NUMBER OF ARRESTS
Cobb County	<.01	<.01
Indianapolis	.41*	.05*
Los Angeles	.05*	<.01
Manhattan	.19*	.03*
New Orleans	.17	<.01
Salt Lake	.31*	-.31*
Washington, D.C.	.18*	<.01

* P <.05

is to test for a correlation between the conviction rate for individual officers and their own number of arrests. As shown in Table III.3, even though the correlation was significant in three jurisdictions, it was so small that there does not appear to be enough evidence to warrant discussion of any real effect. Again, when tested in a multivariate analysis, the sign of the coefficient for arrest was usually negative (though usually insignificant), which is consistent with the findings about unit arrest rates presented above.

2. Factors Related to Officer Characteristics

Using personnel data from four law enforcement agencies (Metropolitan Police Department, Washington, D.C.; Salt Lake Police and Sheriff's Departments; and Indianapolis Police Department), we were able to examine officer arrest convictability performance by personal characteristics, including age, sex, education, rank, marital status, and length of service within the particular agency.

The primary method used here was analysis of variance.* The dependent variable was the simple conviction rate (which was highly correlated with weighted conviction rate, and weighted and unweighted convictions). Officers were placed into groups within each of the six independent variables (sex, age, education, experience, rank, and marital status). The results of that analysis are shown in Tables III.4 through III.9. Where indicated by an asterisk, significance beyond P .05 was found. The analysis of variance was further supplemented by multiple regression analysis. We also looked at the numbers of arrests, convictions, and lay witnesses, as well as the average level of inherent convictability.

Note that in Tables III.4 through III.9, the aggregate inherent convictability need not equal the aggregate conviction rate. Inherent convictability was based on all arrests (e.g., 3,451 in Salt Lake), including those for which we have no officer information. Conviction rate was calculated only for arrests for which we knew the arresting officer (2,400 arrests made by 487 officers in Salt Lake). The calculation was similarly performed for the other jurisdictions. However, for Salt Lake, the occurrence of missing information was not evenly distributed with respect to case disposition. A disproportionate number of cases rejected at screening were missing police officer information. The result is that the conviction rate among cases with a known police officer is

*A statistical technique to estimate relationships between variables.

greater than the conviction rate among all cases (the latter of which includes arrests for which the officer is unknown and which have a lower than average conviction rate). Thus, the inherent convictability measure reflects the probability of conviction regardless of the identity of the arresting officer--i.e., the probability of conviction given that the arrest was made in the jurisdiction by the police department(s) being considered. The conviction rate, on the other hand, is the probability of conviction given that the arrest was made within the particular group of officers that have been identified. The result is that the latter is probably biased upwards for Salt Lake, since it is likely that many of the unaccounted for arrests were made by these rather than by an (as yet) unidentified group of officers. We hasten to add, however, that it is unlikely that the bias exists in a way that is correlated with the other measures being identifed in this study. Since this data limitation prevented us from estimating the "real" conviction rates of the officers, we performed the same analysis using an inherent convictability score based only on the officers who were identified. We performed that analysis for two jurisdictions (New Orleans and Salt Lake). In both instances, all of the conclusions reported here were identical. So, even when we used the biased data set to form the measure of inherent convictability, the same conclusions were reached. For the analysis, however, we decided to use the "real" inherent convictability, so that each officer's actual performance was measured against the true probability of conviction, given arrest.

a. Officer Age. Officers were grouped by age into two categories--under 30 and 30 or older. The analysis revealed that, for the Indianapolis Police Department and the Washington, D.C., Metropolitan Police Department, older officers tended to have higher conviction rates. (See Table III.4) In both jurisdictions, the younger officers tended to get about the same number of convictions as the older officers, but with an average of about 1 to 1.5 more arrests, which result in lower conviction rates. Additionally, perhaps related to officer performance, the younger officers' average number of lay witnesses was significantly lower. However, when we controlled for experience, we found no separate effect due

Table III.4
TABLE OF MEANS BY OFFICER AGE

	UNDER 30	30 OR OLDER	UNKNOWN	TOTAL
INDIANAPOLIS				
ARRESTS	4.1209	3.1186	------	3.3976
CONVICTIONS	1.2198	1.2500	------	1.2416
CONVICTION RATE	0.3003	0.4037	------	0.3749
INHERENT CONV.	0.4488	0.4696	------	0.4638
LAY WITNESSES	0.9210	1.1227	------	1.0666
OFFICERS	91	236	------	327
SALT LAKE				
ARRESTS	5.6061	7.7966	2.6639	4.9281
CONVICTIONS	3.2879	2.3559	1.3033	1.95480
CONVICTION RATE	.6450	.4306	.5672	.5281
INHERENT CONV.	.4308	.4131	.4424	.4302
LAY WITNESSES	1.6705	1.5121	1.6197	1.5861
OFFICERS	66	177	240	487
WASHINGTON, D.C.				
ARRESTS	6.4942	5.3609	------	6.0727
CONVICTIONS	2.3882	2.1338	------	2.2936
CONVICTION RATE	.3587	.3856	------	.3687
INHERENT CONV.	.3702	.3797	------	.3737
LAY WITNESSES	1.2066	1.3422	------	1.2570
OFFICERS	1123	665	0	1788

to age. The experience factor exhibited nearly identical relationships with the dependent variables as did age. There is considerable question about what the exact nature of the relationship is, however. The problems of confounding have been discussed by Forst (1977), Cohen and Chaiken (1972), and Hale and Wilson (1974). Here, while we are able to recognize the problem, as exhibited by the correlations among age, experience, and conviction rate, we cannot determine whether an effect is due to age (i.e., young aggressive officers vs. older less aggressive officers), assignment (younger officers having a mix of arrests that is different from older officers), or experience.

In Salt Lake, however, the younger officers tended to have a much higher conviction rate than the older officers (65 percent as contrasted with 43 percent). This finding held true for both the police and sheriff's departments. The younger officers (in both departments) made fewer arrests and had more convictions. The inherent convictability of their arrest mixes was different but not enough to explain the difference in conviction rate. Additionally, the two groups did not differ significantly in the number of lay witnesses each had associated with its arrests.

Unfortunately, these findings do little to shed light on the question of confounding factors. However, we would speculate that there are some effects that are registered differently in different kinds of socio-demographic settings. Alternatively, from the data, it appears that there may be an optimal level of arrest activity that is associated with high

arrest convictability performanace. In Washington, D.C., and Indianapolis, younger officers are making more arrests than the older ones and are not faring as well in terms of conviction rate. In Salt Lake, where the younger officers make fewer arrests, the conviction rate is higher for them.

With respect to age, consequently, our conclusions are mixed. In the two larger jurisdictions, older officers had slightly higher conviction rates. In the smaller jurisdiction, Salt Lake, the younger officers of both law enforcement agencies made fewer arrests and had more convictions, which resulted in substantially higher conviction rates. The standard reasoning seems to fail in the case of the latter--i.e., that experience and rank, associated with age, would lead to higher arrest convictability productivity. For these two agencies, as shown below, experience also is inversely correlated with conviction rate. Whatever the case, perhaps work load is an important consideration as a factor that is related to age and/or experience, depending on how a police department is organized.

b. Officer Sex. Officers were grouped by sex as well. Here, the results were somewhat less ambiguous. In Washington, D.C., in the study using 1974 data, we found an effect due to sex, but one that was substantially reduced or eliminated when we controlled for specific crimes and level of experience. Again, in 1977, for Washington, D.C., male officers had conviction rates that were significantly higher than females, but the controls led to different conclusions than in 1974 (See Table III.5). These results compare interestingly with earlier

findings. Bloch and Anderson (1974) found that female officers made fewer arrests than male officers. Sherman (1975), Sichel (1977), and Bartell Associates (1977) reported similar findings. Melchionne (1974), however, found no difference.

Table III.5
TABLE OF MEANS BY SEX

	FEMALE	MALE	UNKNOWN
Indianapolis			
Arrests	2.60	3.44	
Convictions	.93	1.26	
Conviction Rate	.38	.37	
Inherent Conv.	.47	.46	
Lay Witnesses	1.06	1.07	
Officers	15	312	
Salt Lake			
Arrests	3.17	7.30	2.66
Convictions	1.17	2.65	1.30
Conviction Rate	.31	.49	.57
Inherent Conv.	.44	.42	.44
Lay Witnesses	1.24	1.56	1.62
Officers	6	237	244
Washington, D.C.			
Arrests	7.43	5.99	
Convictions	1.43	2.34	
Conviction Rate	.25	.38	
Inherent Conv.	.36	.37	
Lay Witnesses	.99	1.27	
Officers	97	1691	

Here, for Washington, D.C., in 1977, we found females making significantly more arrests than male officers, while in Indianapolis and Salt Lake the reverse was true. In Salt Lake,

male officers had higher conviction rates, but not significantly, and the number of female officers was too small to permit additional tests. In Indianapolis, also insignificant, the reverse was true. In each of the three jurisdictions, the number of females amounted to a small fraction of the police department (2 percent in Salt Lake, 4.6 percent in Indianapolis, and 5.5 percent in Washington).

Multivariate analyses were performed to control for other factors, thought to be related to sex (experience, rank, inherent convictability, and age), that might tend to explain the effect of sex on conviction rate. In Washington, D.C., female officers tend to be younger and to have less experience and rank than male officers. Moreover, on average, the mix of arrests made by female officers tends to be slightly less convictable than that for male officers. As a result, their conviction rate is significantly lower than that for male officers. Controlling for these other factors, however, the effect of sex persisted. Apparently, something other than inherent convictability, age, experience, and rank--quite possibly, assignment--accounts for the fact that female officers in Washington, D.C., have lower conviction rates than male officers.

As an additional test, noting the relationship between witnesses and conviction rate and that female officers have lower rates of witness recovery, we tested to see whether including witnesses would explain the sex effect. To a small extent, as was with the other factors, it did; however, even taken all at the same time, a sex effect persisted. Female

officers in Washington, D.C., tend to make more arrests and produce fewer convictions than male officers, controlling for age, rank, experience, arrest mix, and the average number of lay witnesses associated with those arrests. We might speculate that arrests presented by female officers are received differently by prosecutors and judges than cases presented by male officers. If, for example, prosecutors are more likely to reject cases presented by females, other things being equal, the observed effect would be obtained. While such is the case, i.e., such arrests <u>are</u> more likely to be rejected, we have no way of determining from our data whether such rejections are due to a systematic bias against women or to some other factors not identified in this study.

c. <u>Officer Education</u>. Several studies have looked at the relationship between officer education and performance--though none at the primary performance measure being considered here. Bozza (1973) found that education was positively related to the number of arrests officers make. Cohen and Chaiken (1972) and Cascio (1977) found college education to be associated with lower rates of citizen complaints against officers.

For education, we grouped the officers into three categories: no college, some college (including associate's degree), and at least four years of college. There does not appear to be any consistent relationship between education and conviction rate (Table III.6). In Washington, D.C., those with some education beyond high school have higher conviction rates--but not significantly so. This result persists as well

when controlling for arrest mix and rank, two factors that tend to produce confounding effects in the analysis of other factors.

In Salt Lake, officers with some college education have significantly higher conviction rates than officers with only a

Table III.6
TABLE OF MEANS BY YEARS OF COLLEGE EDUCATION

	NONE	1 TO 3	4 OR MORE	UNKNOWN
Indianapolis				
Arrests	3.42	3.22	3.78	2.69
Convictions	1.27	1.17	1.26	1.23
Conviction Rate	.38	.35	.34	.46
Inherent Conv.	.48	.45	.44	.41
Lay Witnesses	1.12	.95	1.00	1.32
Officers	187	77	50	13
Salt Lake				
Arrests	6.76	3.98	5.12	2.66
Convictions	2.57	2.31	2.83	1.30
Conviction Rate	.46	.58	.55	.57
Inherent Conv.	.43	.38	.40	.44
Lay Witnesses	1.57	1.55	1.50	1.62
Officers	178	13	52	244
Washington, D.C				
Arrests	6.01	5.92	7.26	----
Convictions	2.27	2.16	2.99	----
Conviction Rate	.36	.40	.40	----
Inherent Conv.	.37	.39	.39	----
Lay Witnesses	1.26	1.22	1.24	----
Officers	1476	212	100	0

high school education. However, in Indianapolis, officers with some college (or more) tend to have slightly lower conviction rates, though not significantly. Given the conflicting directions, the significance we find in one jurisdiction does not warrant concluding that an effect exists due to education.

This is consistent with multivariate tests that indicate no significant effect due to education.

d. Officer Rank. Rank was somewhat more difficult to deal with. The intention was to divide the officers into uniformed patrol and detectives. Only in Washington, D.C., however, was the partition that straightforward. In Washington, there was a rank effect--detectives had significantly higher conviction rates than uniformed patrolmen (Table III.7). However, the rank effect seems to be entirely due to the inherent convictability of the mix of arrests. Controlling for that factor, no rank effect was found.

Table III.7
TABLE OF MEANS BY OFFICER RANK

Washington, D.C.	Private	Detective
Convictions	2.15	2.91
Arrests	5.93	6.69
Conviction Rate	0.35	0.44
Inherent Convictability	0.36	0.43
Lay Witnesses	1.24	1.33
Officers	1451	337

e. Officers' Marital Status. There was no consistent pattern in the relationship between marital status and conviction rate (Table III.8). In no instance was there a significant difference associated with marital status. Additionally, the small and insignificant differences were in different directions (higher for married officers in two jurisdictions and lower for married officers in a third). Consequently, marital status does not appear to contribute to arrest conviction performance.

Table III.8
TABLE OF MEANS BY MARITAL STATUS

	Single	Married	Other
Indianapolis			
Arrests	3.32	3.49	3.19
Convictions	1.20	1.24	1.29
Conviction Rate	.36	.37	.41
Inherent Convictability	.45	.47	.45
Lay Witnesses	.99	1.07	1.07
Officers	59	199	69
Salt Lake			
Arrests	7.52	7.27	2.70
Convictions	2.96	2.58	1.30
Conviction Rate	.50	.49	.56
Inherent Convictability	.38	.43	.44
Lay Witnesses	1.47	1.59	1.61
Officers	48	187	252
Washington, D.C.			
Arrests	6.10	5.60	7.07
Convictions	2.36	3.03	2.59
Conviction Rate	.37	.36	.37
Inherent Convictability	.38	.36	.38
Lay Witnesses	1.27	1.21	1.23
Officers	1263	355	170

Other includes divorced, separated, and unknown marital status. Accurate comparisons only for married vs. single.

f. Length of Service. There have been several attempts to address the effect of officer experience on performance. Friedrich (1977) and Forst (1977) both found that less experienced officers were more active than more experienced officers. However, Forst found that more experienced officers were more likely to bring their (fewer) arrests to conviction. Sherman (1980) speculated that the difference may be due to generational differences and early socialization into police work.

The findings here, however, suggest that the relationship may be somewhat less complicated than that. As was also the case with officer age for Salt Lake, we have an instance in which more experienced officers are making more arrests than younger officers and have correspondingly lower conviction rates. This suggests an effect due to work load.

Length of service was divided into three categories--less than one year, one to five years, and six or more years. Here as well, mixed results were obtained (Table III.9). In Indianapolis, conviction rates were highest at the extreme levels of experience. In Washington, D.C., there was a weak positive relationship between conviction rate and experience; officers having six or more years of experience had conviction rates that, on average, were 5 percent higher than the conviction rates for officers with less than one year of experience. Because of the mixed findings, there would appear to be substantial evidence for attributing at least part of the difference to work load, rather than experience. The uniformity of that dimension is striking, especially in that it coincides with the reversal of the expected effect due to experience.

g. Comparative Findings. In What Happens After Arrest? we found that "while more experienced officers tend to produce more convictions and have higher conviction rates than officers with less time on the force, the other characteristics in the data--age, sex, residence, and marital status--are, at best, only mild predictors of an officer's ability to produce arrests

that become convictions." The effect of age, for example, was found to be insignificant within given experience groups; the reverse was significant. This led us to the conclusion that the important effect was due to experience.

Table III.9
TABLE OF MEANS BY LEVEL OF EXPERIENCE

	Under Year	1 To 6 Years	Over 6 Years
Indianapolis			
Arrests	4.00	3.81	3.07
Convictions	2.27	1.15	1.27
Conviction Rate	.40	.33	.40
Inherent Convictability	.50	.45	.47
Lay Witnesses	1.00	.98	1.13
Officers	10	133	184
Salt Lake			
Arrests	2.33	4.68	9.26
Convictions	1.67	2.74	2.55
Conviction Rate	.69	.57	.42
Inherent Convictability	.38	.44	.40
Lay Witnesses	1.69	1.60	1.52
Officers	6	99	137
Washington, D.C.			
Arrests	3.20	7.13	5.50
Convictions	.98	2.50	2.22
Conviction Rate	.34	.34	.39
Inherent Convictability	.36	.37	.38
Lay Witnesses	1.15	1.25	1.27
Officers	46	704	1033

For 1977-1978, we found that experience appears to mean different things in different jurisdictions. Having the benefit of a cross-jurisdictional data set, we observed that experience does not necessarily coincide with more arrests that

lead to conviction. Experienced officers had lower conviction rates in Salt Lake, but higher rates in Washington, D.C. The effect of experience was not consistent. Rather, work load (as measured by numbers of arrests), which tended to be relatively heavier for more experienced officers in Salt Lake (than for less experienced officers), and relatively lighter in Washington, D.C., tended to be a more consistent predictor of conviction performance. Officers with a heavier work load tend to have a lower proportion of their arrests end in conviction. Consequently, experience was not seen as being a good predictor of performance, as measured here. Work load, which may vary directly or inversely with experience, depending on police agency structure, was a more consistent indicator.

There does not appear to be substantial evidence for attributing variation in officer performance to personal demographic characteristics, such as age and education. There does, however, appear to be an effect associated with officers' sex. Nothing in the data could explain away this effect due to sex--neither rank, experience, age, nor assignment to the extent that assignments could be measured. While the subsequent analyses (concerning the interviews with officers) may help to shed light on these relationships, the sample does not contain a statistically significant number of female officers to allow us to draw inferences. Consequently, while we may speculate about potential bias against arrests presented by female officers, the available data do not permit us to go any further.

In short, we can go only so far in using personal characteristics to explain variation in officer arrest convictability performance. Officer sex and rank do tend to explain part of the difference; however, they are hardly useful in the application of specific policies. Our findings also reflect on the extent to which inherent convictability and witness and evidence skills explain performance variation among officers. However, these only point to the importance of not jumping to conclusions based only on conviction rates. Work load, also, helps determine the context within which officer performance comparisons must be made. Work load may provide some useful insights to those responsible for the allocation of manpower.

None of this, however, tells us specifically what it is that officers are doing differently. The aim of this section has been to go as far as possible in explaining those differences, and then to take the officers who are different (even controlling for what we can explain) and interview them. Through that next step (Part Two), we hope to further isolate and identify factors that can significantly explain variation in performance among officers.

In the following section, we detail the multivariate analyses that yield the selection of our sample. Further, we try to shed more light on the dynamics of arrest convictability and its correlates.

C. MULTIVARIATE ANALYSES

Given that the replication had in fact confirmed the existence of an officer effect--i.e., that particular officers do tend to substantially outperform or underperform others with

respect to the identified measure (arrest convictability), the next step was to identify those officers at the extremes and to interview them. The purpose of the interviews was to gain additional information and to attempt to explain why their performance was so systematically different from that of other officers.

Several criteria guided the development of the sampling frame for interview. The selection had to be designed so as to maximize the opportunity for gathering information--i.e., from extremely different groups at the top and bottom. We also had to be sure that such officers would not be selected for interview if their position in the performance ranking was an artifact of assignment.

To incorporate these criteria, we used a curvilinear regression model. The basic idea was to select officers whose performance was significantly higher or lower than we could expect based on what we already knew about their assignment, mix of arrests, and the quality of their convictions and arrests. Several alternative forms were tried. The basic form that accomplished the controls we sought to impose was as follows:

$$CONSEN = B(0) + B(1)ARRSEN + B(2)EASE$$

where

CONSEN = number of convictions weighted by their seriousness,*

*The maximum sentence possible, within the particular jurisdiction, was used as a weight for seriousness. Consequently, a conviction for homicide receives relatively more weight than a larceny conviction. This provides a control that down weights officers whose convictions result from charge attrition after overcharging or plea bargaining.

ARRSEN = number of arrests weighted by their seriousness,

EASE = inherent convictability of the officer's mix of arrests.

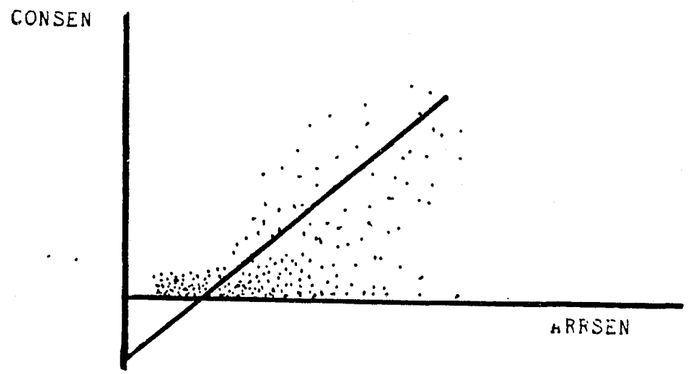
This specification has several problems, however. One of the criteria for inclusion in this study was that officers must have made arrests. Consequently, there is a tendency in the scattergrams (Figures III.1 and III.2) for clusters of points to be on a series of planes parallel to or on the independent (X) axis. The result is that the estimated regression plane passes through the X-axis rather than the origin (since there are no (0,0,0) points in the space. As a result, for small real values of ARRSEN, the expected value of CONSEN was negative. This problem had serious implications for the sample selection procedures that were to be followed.

The next step was to plot a confidence contour about the regression plane. Officers would be selected if they fell significantly above or below the regression plane (as bounded by the confidence contour). With the above specification, it was possible for an officer with a very low ARRSEN value to have an expected CONSEN that was negative. In fact, using this specification, several officers with no convictions would have selected as high achievers because, given a difficult mix of arrests, their expected performance was negative--zero was

substantially higher. Consequently, although the specification does provide the general controls we sought, the predictive results were not acceptable. Additional constraints were necessary.

The alternative specification had two requirements--positive values of ARRSEN should not yield negative expected values for CONSEN, and zero values of ARRSEN (although no such points existed for this data set) must yield an expected value of zero for CONSEN. These criteria were met by changing the specification in two ways. First, the intercept was supressed to force the regression plane through the origin. Consequently, only negative ARRSEN values could yield negative values for CONSEN. As shown in the scattergram for CONSEN=f(ARRSEN) (Figure III.1), the heavy concentration of

Figure III.1.
APPROXIMATE SCATTERGRAM FOR CONSEN=F(ARRSEN)



points with CONSEN close to or equal to zero, while ARRSEN varies over a wider range would usually lead to a negative y-intercept, at Y'. Consequently, low values for ARR or ARRSEN would predict negative values for CON. By forcing the line through the origin, C', all positive values of ARR or ARRSEN yield positive values for CON and CONSEN, respectively.

Second, ARRSEN was included in each term on the right side of the equation. Thus, when ARRSEN is zero, the expected value of CONSEN is zero, because each of the terms on the right side of the equation contains a multiplication by ARRSEN:

CONSEN = B(1)ARRSEN + B(2)(ARRSEN)(EASE).

The result is a curvilinear regression plane. Note the possibility for multicollinearity exists in that ARRSEN is contained in each of the right-hand terms. This is especially so if a correlation exists between ARRSEN and EASE (seldom the case). However, given that the specification is not intended to be structurally complete but is designed instead to yield specific types of predictions, the structural integrity of the model should not be a major issue. In fact, more complete structural multivariate specifications are discussed in the following section. For the purposes of interview selection and for stratification of the groups selected, the model is entirely appropriate.

To expand a little more. The aim here was to use available data to predict the expected performance of officers and then to select a sample of upper and lower outlyers and a small

group near the middle. Note that EASE is the population's expected conviction rate for a given mix of arrests. Consequently, EASE multiplied by the number of arrests is the expected number of convictions:

E(CONSEN)=(EASE)x(ARRSEN).

The selection model included ARRSEN as a separate factor because, when we did not control for factors deemed inappropriate here but not elsewhere, there appeared to be a separate effect from ARRSEN, apart from its interaction with EASE.

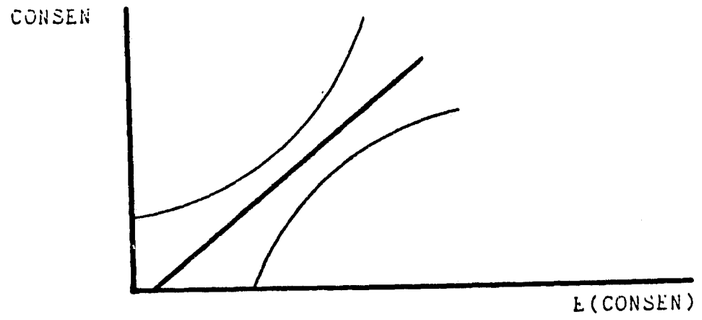
For Washington, D.C., the first specification was used for the original sample selection. The result was that a certain proportion of those selected was not characteristically different from the middle group when the second specification was applied. As a result, for analysis, the second specification was applied and the interview respondents were trichotomized--high, medium, and low performers, by the dimension in the model. Note that this yielded a third group with central characteristics so that "linearity" could be tested with respect to attitudes or other factors identified in the interview. That is, this allowed us to test whether a group that falls in the middle on arrest convictability also falls in the middle for some other dimension.

For Manhattan, the identical technique was applied so that the results would be comparable. Knowing the implications of the selection method, however, allowed us to obtain high and low groups that were more extreme than in Washington, D.C., and

a middle group with an overall lower variance from the population mean. The second specification again was used to trichotomize once the sample was complete.

The method used to trichotomize the sample is an adaptation of a method described by Kmenta (1971). A confidence interval is constructed around each of the estimated points from the regression. They are then joined to form a confidence band. In order to get a large enough sample in each group, it was necessary to draw the confidence band at the 20 percent level on either tail of the distribution. This is shown in Figure III.2. Officers significantly higher than the expected value for CONSEN (controlling for the independent factors) at the 20 percent level were placed in the high group. Officers

Figure III.2.
CONFIDENCE BAND FOR CONSEN=F(ARRSEN,ARRSEN*EASE)



significantly lower than expected at the 20 percent level were placed in the low group. The remaining officers (non-outlyers) were placed in the middle group. This trichotomization scheme was applied to the entire population. Wherever the officer fell in the overall population determined his position in the

sample. Consequently, officers in each of the groups within the interview sample are statistically representative of similar groups within the population, which will facilitate our ability to generalize about them.

For purposes of comparison, the same kind of trichotomization technique was applied to each of the jurisdictions being studied. The groups were tested for variation in convictions, arrests, conviction rate, inherent convictability, and witness productivity. This allowed the validation of the technique across the seven jurisdictions. We were thus able to verify that the resultant groups were different with respect to conviction rates and the number of convictions, that the extreme groups had similar levels of arrest activity, and that the inherent convictability had been effectively controlled for (i.e., did not vary across groups). The regressions used to form the trichotomies are shown in Table III.10, and the subsequent tri-part analysis is shown in Table III.11.

Table III.10
REGRESSIONS USED FOR SAMPLE SELECTION AND TRICHOTOMY

		ARRSEN		QSEN	
JURISDICTION	R-SQUARE	Coeff.	P(2-Tail)	Coeff.	P(2-Tail)
Cobb County	.83	.49	<.001	.40	<.001
Indianapolis	.64	-.40	<.001	1.51	<.001
Los Angeles	.80	.14	.002	1.03	<.001
Manhattan	.89	-.07	.018	1.11	<.001
New Orleans	.90	.02	.723	1.25	<.001
Salt Lake	.73	-.71	<.001	2.59	<.001
Washington, D.C.	.72	-.15	<.001	1.40	<.001

Table III.11
TABLE OF MEANS BY ARREST CONVICTABILITY TRICHOTOMY

	LCR	MCR	HCR	ALL
Cobb County				
Arrests	3.32	1.67	7.11	2.47
Convictions	0.55	1.17	6.42	1.50
Conviction rate	0.11	0.71	0.95	0.61
Inherent convictability	0.42	0.39	0.38	0.39
Lay witnesses	1.26	1.92	2.41	1.83
Number of officers	44.00	156.00	19.00	219.00
Indianapolis				
Arrests	4.82	2.40	4.77	2.80
Convictions	1.21	0.90	2.89	1.12
Conviction rate	0.36	0.41	0.75	0.44
Inherent convictability	0.58	0.45	0.50	0.46
Lay witnesses	1.23	1.15	1.62	1.20
Number of officers	34.00	419.00	53.00	509.00
Los Angeles				
Arrests	2.97	2.04	3.28	2.41
Convictions	1.31	1.31	2.67	1.55
Conviction rate	0.34	0.65	0.88	0.63
Inherent convictability	0.44	0.39	0.42	0.40
Lay Witnesses	0.64	0.56	0.62	0.61
Number of officers	368.00	1405.00	371.00	2144.00
Manhattan				
Arrests	13.59	7.38	11.31	7.86
Convictions	7.72	5.07	8.33	5.35
Conviction rate	0.39	0.57	0.79	0.57
Inherent convictability	0.64	0.63	0.59	0.63
Lay witnesses	0.50	0.49	0.59	0.50
Number of officers	208.00	3454.00	163.00	3835.00
New Orleans				
Arrests	15.03	4.85	16.03	5.92
Convictions	7.00	2.46	11.31	3.00
Conviction rate	0.43	0.50	0.75	0.51
Inherent convictability	0.43	0.42	0.41	0.42
Lay witnesses	0.79	0.98	0.89	0.96
Number of officers	90.00	1101.00	35.00	1226.00
Salt Lake				
Arrests	16.54	3.64	11.37	4.93
Convictions	1.27	1.56	6.89	1.95
Conviction rate	.14	.54	.68	.53
Inherent convictability	.45	.43	.39	.43
Lay Witnesses	1.23	1.59	1.85	1.59
Number of officers	26	423	38	487
Washington, D.C.				
Arrests	9.54	5.56	8.78	6.07
Convictions	1.85	2.11	4.69	2.29
Conviction rate	0.17	0.36	0.61	0.37
Inherent convictability	0.41	0.37	0.40	0.37
Lay witnesses	1.45	1.22	1.49	1.26
Number of officers	117.00	1530.00	141.00	1778.00

One additional test was also permitted within this framework, that of witness productivity. If the ability to obtain witnesses was a substantial contributor to the success or lack thereof of particular officers, then, controlling for the other factors, the high achievers should have higher numbers of lay witnesses associated with their cases. In fact, the results were somewhat mixed.

In all jurisdictions except Los Angeles, the top group of officers did average more witnesses than the bottom group, this finding was significant above the .08 level (alpha above .05 are considered unacceptable in this part of the analysis). Only in Salt Lake was the "effect" linear (significant at the .03 level), that is H M L (where H, M, and L are the three respective officer groupings--high, medium and low) with respect to witnesses. In Cobb County, the effect was also linear, but was not significant at the .05 level. In Indianapolis, Washington, D.C., and Manhattan, a H L M pattern was discovered, where the top and bottom have the correct relationship but the middle group does not fit in linearly. Here, the relationship was significant beyond the .005 level. In New Orleans, again the highs were above the low, but the middle group was higher than either--but we hasten to add that this relation was nowhere near significant. In Los Angeles, the LCR group was slightly (but insignificantly) higher than the HCR group, while both the low and high groups were significantly higher than the middle group.

In view of this, it appears that obtaining lay witnesses, while related to conviction rate in general, is not a dimension

that is measuring the same thing as our grouping trichotomy--only convictions and conviction rate parallel the grouping dimension. This obtains despite the fact that witnesses and convictions and conviction rate are correlated, before being associated with particular officers. This lends support to our earlier suggestion that there may be more than one underlying dimension that explains arrest convictability performance.

D. ADDITIONAL MULTIVARIATE ANALYSES

As indicated previously, the technique used for trichotomizing the sample was not necessarily the best structural specification of the relationship between conviction rate and independent factors. Using factors identified in the zero-order correlation tests, we sought to explain as much of the variation in conviction rate as possible using available data. In several jurisdictions, it was possible to use additional factors available from personnel records. We will begin by describing the specifications that could be tested for all seven jurisdictions.

For purposes of multivariate analysis, we considered two basic concepts--a conviction rate, and the number of convictions with the number of arrests as a control. A further variation of these two was produced by weighting either with the maximum possible sentence associated with a given arrest or conviction offense. This provided us with four different dependent variables to consider:

RATE = simple unweighted conviction rate,

RATSEN = weighted conviction rate,

CON = number of convictions, and

CONSEN = weighted number of convictions.

The basic data available for all seven jurisdictions was quite limited. Consequently, the purpose here is not to explore numerous recombinations of the variables, but to provide a multivariate test of the independent variables identified above to explain jurisdictional exceptions, and to discuss additional factors that might have improved our ability to explain the dynamics of arrest convictability. Highlights of this analysis are discussed below.

Using the unweighted conviction rate (RATE) as the dependent measure, we tested:

$$RATE = B(1) + B(2)EASE + B(3)WIT.$$

This specification was significant above the .001 level in each of the seven jurisdictions. Both of the independent variables were significant above the .01 level for all jurisdictions except for WIT (average number of lay witnesses per arrest) for both Manhattan and Los Angeles, and except for EASE for Cobb County. All significant coefficients had the expected sign--positive--indicating that higher values for both EASE and WIT increase the conviction rate. The multiple R-square (which tells the proportion of variance in the dependent variable explained by variation in the independent variables) varied from .05 in Los Angeles to .46 in Indianapolis. The inherent convictability of the mix of arrests, combined with the number of lay witnesses, appears to

be able to explain a moderate amount of variation in conviction rate in most instances. For Manhattan, as indicated earlier, the lack of significance of WIT can be attributed to the dichotomous nature of the variable. In Los Angeles, controlling for other factors, it appears that (keeping in mind that declined prosecutions are excluded from our Los Angeles data) the number of lay witnesses does not contribute to an officer's conviction rate. As shown in an earlier chapter, the number of lay witnesses generally is more important in determining acceptance for prosecution than in determining the probability of conviction given acceptance. Given that the Los Angeles data exclude cases rejected at screening, we would expect the effect of witnesses to be small, if significant at all. Similar data limitations would explain the lack of significance of EASE for Cobb County, where numerous cases that were pled but not indicted were excluded from the data base.

The same two variables were tested using the weighted conviction rate (RATSEN) as a dependent variable. The equation estimated here is:

RATSEN = B(1) + B(2)EASE + B(3)WIT.

Again, as for RATE, equations for all jurisdictions were significant above the .001 level, and all coefficients were significant, with the exception of WIT in Manhattan and Los Angeles, and EASE in Cobb County.

The rationale for including EASE and WIT for explaining the conviction rate is relatively straightforward--the more witnesses one obtains, and the "easier" the mix of arrests, the

higher one's conviction rate. On the other hand, one hypothesis called for including the number of arrests as an independent factor--that more arrest activity would lead to higher levels of "success" (or, alternatively, that more arrest activity dilutes the effectiveness an officer can have, which results in a lower conviction rate). Contrary to either of these alternative hypotheses, in this model there was no significant relationship between conviction rate and the number of arrests.

The third dependent measure identified was the number of convictions (CON), and the fourth was that used for the sample selection, the weighted number of convictions (CONSEN). On average, the expected value of CON is determined by the interaction of EASE and ARR. That is,

E(CON) = (EASE) (ARR), unweighted and

E(CONSEN) = (EASE) (ARRSEN), weighted.

If a given officer experiences the expected incidence of conviction for his particular arrest mix, then his number of convictions will be the inherent convictability of his mix multiplied by the number of arrests. For the sample selection model, the specification was

CONSEN = B(1)ARRSEN + B(2)(ARRSEN)(EASE), where

the value of CONSEN was set by some fraction of the weighted arrests plus the product of weighted arrests (ARRSEN) and the expected rate of conviction (EASE). Empirically, both terms were usually significant; however, in order to control the

characteristics of the equation, it was necessary to constrain the model in two ways that limited the range of its theoretical utility. First, we suppressed the constant in order to force only positive values of CONSEN for real values of ARRSEN. Second, we eliminated EASE, except in combination with ARRSEN, so as to force the right side of the equation to always equal zero for cases in which ARRSEN=0.

Consequently, for our sample selection, we allowed the expected value of CONSEN to be the theoretical expectation plus any additional effect from maximum possible sentence variation. A more complete test of the relationship, analogous to an analysis of variance with main terms and one interaction term, was performed using multiple regression:

CONSEN = B(1) + B(2)ARRSEN + B(3)EASE + B(4)(ARRSEN)(EASE), and

CON = B(1) + B(2)ARR + B(3)EASE + B(4)(ARR)(EASE).

These two forms were tested for each jurisdiction. The interaction term was significant each time, as was expected, since E(CON)=EASE x ARR. However, it was not always true that additional variation in convictions could be attributed to the level of arrests or to the level of inherent convictability (also the expected conviction rate). In two jurisdictions, ARR and ARRSEN were not significant, and in three jurisdictions (four for CONSEN) EASE was not significant. This was most likely due to multicollinearity between each of the pairs of independent factors (except, usually, ARR and EASE). Even so, we took the process one step further, using the residuals from

CON=F((EASE)(ARR)) (weighted and unweighted) regressed on arrests and EASE. Here, there was some additional effect from EASE, but not from arrests.

In the final iteration, having discovered a low probability of an independent effect from arrests, we estimated the forms as:

CON = B(1) + B(2)EASE + B(3)(ARR)(EASE) + B(4)WIT, and

CONSEN = B(1) + B(2)EASE + B(3)(ARRSEN)(EASE) + B(4)WIT.

Again, all of the equations were significant above the .001 level, as was the interaction term. However, WIT was significant (above the .05 level) in only four jurisdictions, and EASE was significant in only five jurisdictions (both for CON and CONSEN). Apparently, once the expected number of convictions is calculated, there is little additional effect from other factors, although in some jurisdictions there clearly are additional effects.

Interestingly, the sign of EASE was negative for all of the sites, except Washington, D.C. This means that once most of the variation in conviction rates has been explained using the expected rate (EASE) multiplied by the number of arrests (ARR or ARRSEN), higher values for EASE lead to lower values of CON and CONSEN. That is, departure from the expected number (or weighted number) of convictions is negatively related to the inherent convictability of an officer's mix of arrests. The easier that mix, the more likely an officer is to fall below his theoretical expectation. The more difficult the mix, the more likely an officer is to exceed his theoretical

expectation. We could posit two possible explanations for this. One i that more experienced officers may handle the more difficult cases. Here, the department's track record would indicate lower expected performance. The fact that, at the margin, a case is more difficult to convict, promotes the probability that it will be handled by someone more likely to receive a conviction. Thus, while the linear effect of EASE is clearly positive, the marginal effect is negative. Alternatively, the additional EASE component may simply be the product of indexing. That is, for any given value of EASE that is higher than the population mean, the probability is relatively higher that any given individual will be below it. For values of EASE lower than the population mean, the probability is relatively greater that the individual will be above it. Put another way, the lower the expectation, the easier it is to exceed it, and the higher the expectation, the more likely it is that an individual will fall short.

The effect of WIT was relatively straightforward. For those cases in which it was significant, the presence of additional lay witnesses serves to enhance the convictability of an arrest. Usually, increasing the average number of lay witnesses per case by one would lead to an increase in convictions of about .3 to .4 (thereby necessitating an increase in witnesses by 2.5 or 3 to yield a one-unit increase in convictions). Putting this into perspective, in Indianapolis, which has the largest witness effect, holding EASE and expected convictions constant, adding an average of one witness per arrest would increase an average conviction rate from 42 to

48 percent (about 14 percent of the total). Considering that the average number of witnesses obtained in Indianapolis is less than one per arrest, this small increase in conviction rate would require that officers double their witness efforts (provided that witness cooperation is related to officer performance). From the standpoint of sentencing, each additional witness per case would yield an additional 20 months maximum sentence. We hasten to add that this is the maximum one would expect from these jurisdictions, in that Indianapolis has the largest witness coefficient.

* * *

Reviewing briefly, we have identified a number of factors that are associated with and tend to help explain variation among officers in their ability to get convictions. The most important factors tend to be the inherent convictability of their mix of arrests, how many lay witnesses are associated with each arrest, and the officer's sex, rank and experience. Even so, there appears to be a certain amount of variation that is not explained.

Most of the factors so far identified are not easily addressed through police department policy. A department could emphasize obtaining and working with witnesses as a means of increasing the productivity of arrests. However, holding the mix of arrests and total potential conviction product (EASE and ARRSEN) constant, the remaining variation does not appear to be explained entirely by witnesses. As well, additional gains that might result from increasing the number of lay witnesses per arrest seem to be small.

Rather, it appears that something associated with particular types of experience is more likely to account for this additional variation. Perhaps there are differences in the way police officers think, approach problems, or carry out their arrest and follow-through activities that tend to account for differing case outcomes. As expected, a certain amount of those differences are understandable by examining other case and officer variables available through PROMIS and personnel records. Incongruities in these findings, however, call for additional analyses of officer attitudes and practices. These are examined in the sections that follow.

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