

Deterrence and System Capacity:  
Crime and Punishment in California

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Abstract of the Dissertation  
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Researchers have compiled weak, yet supportive evidence which is consistent with a deterrence hypothesis - a negative relation between crime and sanctioning. These advances notwithstanding, research on deterrence may cloud the reality of the association between crime and punishment by ignoring the broader aspects of labeling activities in the courts, including the means by which defendants are prosecuted and convicted, and the ways in which sanctioning activities themselves are determined by social process which exist within the legal structure.

A changing social environment which produces increased rates of criminal activities, and hence a possibly greater input of violators into criminal

justice agencies, taxes the existing resources of the state to "deal with" crime. This fact alone would suggest that alleged deterrent effects are at best minimal because of necessarily less frequent and less severe sanctioning by courts which are drowning in a sea of backlogged cases. In the vast majority of criminal cases it is virtually impossible for the state to administer sanctions that are both swift and severe; a non-practice which stands in direct opposition to the major tenets of deterrence doctrine. This does not disprove deterrence, but rather documents that its effects (if they exist at all) are likely to be greatly reduced in practice. Thus, the major question that arises is not whether deterrence in the abstract is capable of working, but rather, whether deterrence is likely to operate given the practices of American criminal justice.

The study employs data on California counties for the period 1966 to 1974. Information was taken from reports issued by the Bureau of Criminal Statistics, Sacramento, California, the City and County Databook (Federal Bureau of the Census) and the California Bureau of Finance.

Major variables of interest were examined in

terms of changes in medians, zero-order and partial correlations. The variables include: 1) rates of felony crimes reported to the police; 2) resources per capita, in terms of both personnel and spending for criminal justice agencies; 3) expenditure imbalance between agencies and the degree of court caseload; 4) felony conviction rate and method of case disposition; 5) rates of punishment in terms of sentencing outcomes, and 6) demographic features of California counties.

The implications for deterrence research are clear from the findings. Current criminal justice practices, especially the extremely low probability of punishment indicates that the deterrent efficacy of punishment is likely to be minimal. Inequality was found to be an important determinant of police funding, which is, in turn, related to reported crime. Inequality is also related to court caseload independent of other population characteristics. Caseload does not appear to lessen the adversarial nature of court processing. On the other hand, caseload appears to push down formal penalty structures resulting in less certain and severe punishments. The findings indicate that the system's capacity for generating

and administering punishments has been reduced by the cases brought before it. This does not disprove deterrence, but indicates that it is unlikely to operate under present practices of criminal justice.

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## I. INTRODUCTION

For over 100 years deterrence has been an espoused goal of the legal punishments. General acceptance of punishment as a means of crime control is based on what people believe is "logical" about the concept of deterrence in an ideal sense, rather than a view which sees it as dependent on criminal justice practices. The idea that punishment can deter potential criminals from committing serious crimes has become an official ideology which justifies punishment policies and increased expenditures for criminal justice. On the other hand, less emphasis is placed on the environment where both crime is reported and legal institutions exist.

Within the past 10 years there has been a major research effort aimed at refining knowledge about the deterrence doctrine. Researchers have compiled weak, yet supportive evidence which is consistent with a deterrence hypothesis - a negative relation between crime and sanctioning. In order to place these findings in larger perspective however, it is necessary to examine the manifold relations among characteristics of the social environment, criminal justice organization and capacity, and sanctioning

decisions.

It is clear that under limited conditions, certain forms of punishment may be effective in preventing certain "undesirable activities" (Chambliss, 1969). It can also safely be assumed that at least some effects of legal punishment are present, even if only in a "symbolic" sense, and influence portions of the population. If the threat of punishment was eliminated altogether, an increase in criminal activity would likely result. Exactly what type of sanctioning, population subgroups, and types of criminal activity would be involved, however, is less clear.

Deterrence research and theorizing have come a long way since the work of Bentham and Beccaria. The work of Andenaes (1966), Zimring and Hawkins (1973) Gibbs (1975), among others, have increased our understanding of the ways in which legal threats, communicate to some population, may affect behavior. In addition, the more recent study of "perceived" sanctions, given impetus by the work of Waldo and Chiricos (1973) Henshel and Silverman (1974) and Erickson, Gibbs and Jensen (1977), demonstrates that the original field of study has expanded from research solely on objective levels of sanctioning to subjective

awareness of punishment levels. These works also point to the complexity of the deterrence phenomenon - namely, the variety of circumstances and conditions which may influence the efficacy of legal threats to serve as deterrents.

These advances notwithstanding, research on deterrence may cloud the reality of the association of crime and punishment by ignoring the broader aspects of labeling activities in the courts, including the means by which defendants are prosecuted and convicted, and the ways in which sanctioning activities themselves are determined by social processes which exist within the legal structure.

## II. THEORY

### Criminal Punishment And The Social Environment

Sanctioning activities in criminal courts are poorly understood by students of general deterrence. The subject may provide important answers to many questions raised by the positive findings of ecological studies on deterrence. Most analyses of crime and punishment do not pay much serious attention to the capacity of criminal courts to generate and administer sanctions. Specifically, criminal punishment is treated as a "given" or "assumed" condition in some studies, significant only as a independent variable. Criminal sanctioning has not been analyzed as a phenomenon requiring exploration in its own right. The result is a gap in scientific understanding of the general deterrent effects of criminal sanctions, and the potential magnitude of such effects in view of other relationships among crime, law and society.

An analysis focusing on the determinants of sanctioning activity at the court level will help identify the conditions under which criminal sanctions are likely to produce deterrent effects. Courts are essentially assigned the task of sorting and applying sanctions to violators. The processing of criminals

in terms of final punishment rates produced, surely influences the efficacy of punishment as a socializing agent via general deterrence. If the vast majority of criminals escape certain, swift and severe punishment, then deterrence through sanctioning activities can be only minimal at best. The operational definition of sanction risk, or certainty of punishment, employed in this study differ from those most commonly used. It refers to the objective probability of punishment for accused persons who have entered the criminal justice system via arrest. Defining sanction risk in terms of the probability of conviction and sentencing once suspects have entered the system, makes possible three advances in deterrence modeling.

First, the effects of errors in reported crimes are diminished since the measures to be correlated (crime and punishment) no longer contain a common term; crimes known to the police. Studies have generally employed measures of sanction risk which include crimes known to the police in the denominator of the term, which may give rise to artifactual effects (Logan, 1978) and which may also overestimate the true probability of punishment (National Academy of Sciences, 1978).

Second, operationalization of punishment in terms of a systemic concept of sanction risk at the court level makes possible meaningful comparisons of sanctioning rates across jurisdictions. It therefore permits the study of local criminal justice systems to be placed on a single scale of punitiveness. Natural variations in crime and punishment occurring within local jurisdictions can therefore be used to identify factors associated with sanctioning and to assess possible effects of sanctioning on criminal activities. Finally, a measure of sanction risk at the court level more closely approximates a perceived sanction level by those who are processed through the system. The probability of punishment is more likely to be known by those who view the "law in action," and information concerning punishment levels is likely to become known to others in "crime-prone" subgroups, namely those in the lower class.

Rates of punishment depend on the sanctioning capacity of criminal courts. In turn, sanctioning capacity can be conceptualized as a function of two main factors: (a) the resources courts are given for making sanctioning decisions, and (b) the workload pressures under which they operate. In other

words, the capacity of the judicial system to generate and administer sanctions depends on the relation between resources and workload demands. Where resources are generous and demands light, sanctioning capacity is high. Sanctioning capacity is low where resources are scarce and demands heavy.

Although judicial resources play an important role in determining sanctioning capacity, resources of other agencies in the criminal justice system may also play an important role in determining rates of punishment. Most significantly, prosecuting resources will affect the capacity of courts to process violators. In addition, the ratio of police to prosecutorial resources may account for court case loads. That is, if police are relatively overfunded compared to prosecutor's offices, then courts may become backlogged with cases, necessitating earlier release of suspects and hence less certain and severe punishments.

The model of crime and punishment presented here is different from other such models by and large, which have been constructed from a concern with identifying deterrent effects of punishment. Rather, it is derived from the assumption that the criminal justice system or the speed at which the criminal

justice system processes defenders depends on a considerable degree on factors external to the criminal justice system. In addition to resources and workload pressure, the model includes two other key variables which may affect the sanctioning process: inequality and crime. As explained in greater detail below, the model incorporates the idea that crime rate may be a determinant of punishment (Nagin, 1978; Pontell, 1978) and that inequality (i.e. the extent of differences in living conditions among the civilian population) may affect both crime and punishment.

The relationship between what is considered serious crime and social inequality is widely recognized by social scientists as holding a key to the process of criminogenesis (Bonger, 1969; Quinney, 1977; Sykes, 1978; Wolfgang, 1968). Income disparity, unemployment, poverty and other components of social inequality all play a role in the production of crime. Inequality is also likely to play a major role in the production of punishment, in terms of both quantity and type (Rusche and Kirchheimer, 1939). I shall attempt to join these two seemingly independent sets of relationships through an examination of their ecological linkages.

One critical theoretical connection may be found in the proposition that the deterrent value of criminal sanctions depends upon conditions prevailing outside of the criminal justice system itself. That is, rates of legal sanctioning may not be as important in and of themselves for assessing general deterrence as seeing these rates in light of, and indeed, necessarily tied to, prevailing social and economic conditions (Rusche and Kirchheimer, 1939). For example when a large surplus pool of labor develops, the prison population can be expected to increase. The most elementary concept of punishment is that it involves deprivation of valued states and social relationships. If utilitarian assumptions about general deterrence effects are correct, then as socially valued states and relationships increase in the population (i.e., the standard of living is raised) less punishment should be necessary to achieve a comparable degree of general deterrence. Less resources can be spent on punishment to achieve a similar level of deterrence as previously because the value of punishment is greater during times of prosperity. It must be recognized, however, that even in prosperous times deprivation may still be quite high. That is, even

if people appear to have some wealth, periods of high inflation will drive prices up, making it more difficult for families to make ends meet. Struggling to survive is not only a lower class phenomenon, although the absolute level of deprivation is higher in this group.

Christie (1968:172) clarifies the notion of the deterrent value of criminal sanctions with his closely related idea concerning the penal value of punishment:

In a community where the ordinary population enjoy increased leisure, imprisonment will be regarded as an increasing evil, its penal value will rise sharply, and therefore less of it can be used to compensate offenses committed.

Besides offering an explanation of how penal values change, Christie's analysis also helps to explain how punishments may have differing values for different social classes. The "ordinary population" to which Christie refers is unlikely to include the indigent and the minorities who are excluded from mainstream society. Because of the lowered state of living conditions for these groups, the value of punishment is necessarily lower than in the "ordinary population." Thus, according to utilitarian doctrine, more punishment is necessary for offenders from these groups

than is warranted for those from the middle or upper classes. Christie's notion of penal values is likely to vary for classes within society, just as it may hold true generally for society as a whole.

The idea of varying penal values may also explain inequality in the imposition of criminal labels and punishments. Lower class offenders already have less to lose by committing crime than those in higher social strata. The value of punishment is therefore lessened for the lower class offender. Authorities may feel justified in meting out more severe and certain punishments to this group because "they need to be taught a lesson." On the other hand, less punishment is generally warranted for the relatively well-to-do. A recent example of this is the case of Watergate. The Watergate defendants, after being found guilty of serious crimes against society, were rather leniently sentenced. Deprivation for these individuals was imposed according to their high status. Brutal punishment was not "rational" under such circumstances. On the other hand, for those with nothing at all to lose in the first place, punishment necessarily has less inherent force. More of it is necessary to further deprive the already deprived

criminal.

This discussion points to the class-structured nature of punishment in American society. It is already an established fact that most persons arrested, convicted and sentenced to prison are from the lower social strata. They are least likely to be represented by private attorneys, most likely to be convicted on serious charges and most likely to be sentenced to imprisonment and to death row.

As inequality mounts, the rate of crime in society increases. At the same time, however, economically induced increases in inequality among portions of the population reduce the deterrent value of criminal sanctions for such groups. Rusche and Kirchheimer (1939) document the relationship between penal practices and general economic conditions throughout the history of various European countries. They find that the presumed deterrent effect of punishment could only be maintained by keeping prison conditions more miserable than the situation of the lowest social class. This would have to be true if punishment was to deprive the criminal. They also find that prisons became overcrowded with violators when there was a large pool of surplus labor during the Industrial

Revolution and the Great Depression. During such economic circumstances, crime rates increased along with the number of capital crimes. The subsequent overcrowding of prisons served as a natural mechanism for keeping conditions of prisons below that of the lowest free class. Prison conditions therefore reflected and magnified the brutality of life which faced those who resided at the bottom of the social ladder.

If no other factors were at work, therefore, changes in social conditions producing inequality would translate into higher crime rates and higher rates of punishment in terms of severity and certainty. This view neglects however, the limited capacity of present day institutions of criminal justice to administer sanctions. Imprisonment rates for the past few decades have reached an equilibrium (Blumstein and Cohen, 1973). This means that while crime rates have risen, punishment has leveled off. This is likely to indicate, 1) the saturation of penal resources, and 2) possible changes in penal values.

There are other likely determinants of sanctioning activities besides poverty. The most important are criminal justice resources and court workload pressures. The effect of public spending

on criminal justice as a determinant of sanctioning may appear obvious. That actual patterns of criminal justice expenditures may create imbalances within the legal system which impact on the sanctioning process itself, however, is generally less appreciated. That is, if police resources are disproportionately large in comparison to judicial resources, then criminal courts may fall increasingly behind in processing cases, necessitating earlier releases of detained defendants, increased dropping of charges, and less sanctioning. This is most likely to happen in urban areas where reported rates of serious crime are high.

If inequality grows in society, then rising crime is a likely consequence (President's Commission, 1967). Growing public concern over safety may translate into the opposite of its intended effect by creating further imbalances in criminal justice funding. Overfunding of the police in relation to courts and prisons for example, may result in overcrowded court and prison facilities and necessitate lowered levels of punishment. Here the concept of overload and its relation to the sanctioning process becomes important in understanding the ecology of crime and punishment. A high degree of work load

pressure is brought to bear on criminal courts through the interaction of high crime rates and relatively low expenditures for courts, in both absolute terms, and relative to police expenditures. The police, via arrest, create work inputs for courts and prisons. The combination of high reported crime and disproportionate spending on police relative to courts and prisons, may be a major source of the seemingly ever-increasing work load pressures noted by students of criminal courts (Casper, 1972; Downie, 1972; James, 1968). The influence of caseload pressure on sanctioning practices, and the efficacy of general deterrence as a realizable goal of punishment given these as practices, needs to be explored.

Previous researchers have not seriously considered the possibility that crime rates, influenced by environmental factors, may in fact lower sanctioning levels by taxing the resources of the criminal justice system. Recent work has given greater credence to this possibility (National Academy of Sciences 1978; Nagin, 1978; Pontell, 1978). This alternative view of the nature of the relation between crime and punishment has come to be known as "system capacity" (Pontell, 1978) and the "resource saturation hypothesis"

(Nagin, 1978). Regardless of its label, it proposes that in the short term, criminal justice resources are generally fixed and unresponsive to short term fluctuations in rates of crimes and arrests.

Within the criminal justice system however, certain resources are likely to be less fixed than others in the short term. The police, for example, receive resources from municipalities and are likely to receive additional funds when a rise in crime is perceived. Also, the police receive almost twice the resources of both courts and prisons combined (President's Commission, 1967).

The police represent, among other things, society's "first line of defense" against crime. Political rhetoric concerning crime control focuses most heavily on increasing expenditures for police; potentially at the expense of other agencies of criminal justice and social programs aimed at alternative ways of reducing criminal activities. The overfunding of the police force in relation to the courts may give rise to a "structured imbalance" between agencies, and their capacities for sanctioning violators. Where this imbalance is more pronounced, less formal sanctioning may result due to the dispropor-

tionately large caseloads which courts are likely to receive.

The effects of large court caseloads on punishment are evident by the actions of prosecutors. Prosecutors are, by and large, concerned with speed in processing large caseloads and their image as measured by productivity (convictions), rather than with considerations of deterrence. In addition, prosecutors who are faced with large caseloads must choose only the most favorable cases, i.e., those where a plea of guilty can be obtained quickly and easily, and those where there is adequate evidence of guilt. The fact that the capacity of the court to prosecute is limited is evident from the high attrition rates as cases move through the system. For example, Mather (1973) reports that at pre-trial screening of felony cases: "In Los Angeles, prosecutors exercise considerable discretion at this point, filing felony complaints on only about one-half of the felony arrests" (192).

Because prosecutors are elected to their positions, their "track records", (convicted defendants) which reflect how well they are "protecting the public," strongly influence their future careers. They must produce conviction statistics which place their activ-

ities in the best possible light. This is likely to take precedence over other concerns of due process, social justice and deterrence. Prosecutors strive for high rates of conviction and, correspondingly low rates of acquittal and dismissal once cases are accepted. This is in part accomplished through the semi-official practice of plea bargaining. In fact, it is estimated that as many as 80 to 90 percent of criminal cases are disposed through plea bargaining (President's Commission, 1967).

Prosecutors must try to bargain most cases in order to meet calendar requirements of the court and to manage the large caseload which confronts the court. Thus, they must drop cases which are in some respect problematic, and negotiate pleas of guilty, which carry the promise of less punishment, for nearly all cases which remain. Where caseload pressure is greatest, less formal sanctioning is likely to result.

#### Reconceptualizing Crime And Punishment

Although there are rational-legal rules of criminal procedure, and formal goals of punishment, there is also widespread discretion for legal authorities. This aspect of law permits informal

arrangements to arise, including plea bargaining and other patterns of cooperative production. Within such a system of interaction, which stresses norms of cooperation over legal norms of conflict, it would appear plausible that penological considerations, including that of deterrence, may become secondary to administrative and personal goals of participants. In addition, offices are not formally structured for cooperation. Rather, the organization of agencies is based on the norm of conflict; as an adversary system. The "demise" of the American adversary system has been noted by a number of authors who cite the informal, cooperative agreements which arise due to administrative necessity (Blumberg, 1967; James, 1968). The extent to which this is true, and the factors inducing such changes at the macro-sociological level, are generally not identified, aside from caseload and personal interests of individual actors. Does caseload influence rates of plea bargaining, and if so, in what ways? Does workload pressure influence the type and degree of sanctioning, including final sentence? Do rates of crime and arrest along with other demographic characteristics influence the sanctioning process? These important questions constitute the obverse of the

deterrence question, and, when examined, will further understanding of the relationship between crime and punishment.

In searching for deterrent effects, a formal-legal goal of punishment, researchers have tended to neglect the importance of the labeling process which occurs between arrest and final sentencing. By and large, the administration of sanctions is, taken for granted in the study of possible effects of punishment on subsequent criminal activities. This has produced a one-sided picture of the relationship between crime and punishment. While the formal goals of the criminal justice system may still be held by some actors in the system, by portions of the population, and by some researchers, as determining punishment and processing activities, it is clear that this is not the case in actual practice. As crime rates have risen, there has been no accompanying rise in the relatively severe punishment of incarceration (Blumstein and Cohen, 1973). Furthermore, it appears that certainty of punishment has declined in the recent past, indicating that the resources of criminal justice have been saturated by the amount of work brought before it.

The principal question which is now appearing

is not how punishment practices influence rates of criminal activities, but how the structure and organization of criminal justice processing respond to caseload pressures which are brought to bear upon it. The transformation of the ideal adversary system of justice to one which is characterized by some degree of cooperation among actors, demonstrates that "justice" does not necessarily conform to the rational goal model expressed by the traditional legal view, or to the statutory law itself. The adversary ideal, usually seen in highly publicized cases is nowhere near a true representation of the criminal justice process today, and indeed creates a misleading picture which reinforces current practices. However, the quick adjudication of cases as characterized by such terms as "assembly line justice" (Blumberg, 1967) may also present a somewhat distorted picture of criminal processing - one in which there is no adversariness.

It is clear that offices within the criminal court interact in the sanctioning process primarily through informal arrangements, which arise, at least in part, by administrative necessity. Overall sanctioning patterns which result, and their possible relations with external environmental factors and

the structure of criminal justice agencies have not been examined within a single framework, resulting in only incomplete knowledge of the generation and administration of penalties. Rates of final sanctioning at the court level represent the end product of this interaction by legal authorities.

In current practice, agencies of criminal justice largely circumvent the statutory law in the processing of cases. It is clear that individual authorities have their own goals and needs - there is no "goal" or "goals" of criminal justice in practice, but only formal goals in the strictly legal-traditional sense. This helps bring to light the essentially non-bureaucratic nature of criminal justice activities. There is no strict hierarchy of authority in the Weberian sense of bureaucracy, but only a loose organization of separate offices, each delegated with a certain degree of legal authority and each operating somewhat autonomously.

The displacement of formal organizational goals of criminal justice by a system of cooperative, and mutually beneficial exchanges, may be due in part to what Blumberg identifies as the "crush" of large caseloads and systemic strains placed upon actors

(Blumberg, 1967;22). In order to meet "production norms" a large variety of bureaucratically ordained short cuts, deviations and outright rule violations adopted as court practices" exists (22). Blumberg's argument relies heavily on the caseload hypothesis of functional adjustment of activities. It appears that what Blumberg is saying is that in the absence of such pressing caseloads, a system of cooperative exchanges would not exist.

This is contrary, at least in part, to the findings of other observers of criminal courts. Mileski (1971) finds that short cuts and rapid processing tend to occur even where caseload pressure is less pronounced. Both Skolnick's (1967) and Cole's (1970) analyses indicate that such patterns of cooperation may not only be due to workload pressures, but as a consequence of long relationships and acquaintances among actors, as well as other administrative factors of which moving cases is only part. In a study of case disposition in Los Angeles, Mather (1973) notes: "While caseload pressures are doubtlessly important they may be overemphasized in the current literature" (187).

## Court Organization And Criminal Sanctions

The legal process may be defined as: "the sum total of the behavior of those individuals in positions that are more or less directly connected with the activities of courts" (Eisenstein; 1973, 6). Most studies have focused on deterrence through a traditional model of the law, which takes for granted the formal decision-making process of the courts as outlined by statutory law. They examine how courts ought to work if their activities conform to legal theory. Studied from such a perspective, they offer no "demystification" of the legal process, which intervenes between the commission of a criminal act and final sanctioning. Studied from a "legal realist" perspective, however, which emphasizes the law "in action", the legal process can be examined apart from its juristic appearance, and in its relation to wider society.

The traditional model of criminal justice coincides with that of "due process," or the ideal of the adversary system. In direct contrast to this ideal type, stands the "crime control model" (Packer, 1968). The former emphasizes the rights of the defendant and the elements of due process including: the right to a jury trial, adherence to formal rules of procedure,

right to counsel and witnesses, cross-examination of prosecution witnesses, and that no individual will act simultaneously as judge, prosecutor and jury. The latter view, on the other hand, emphasizes an administrative-managerial approach to criminal processing with a premium placed on "speed and finality" (Packer, 1968; 159). Here, the presumption of guilt is necessary for the fast disposition of cases. In such an assembly line atmosphere, the rights of the defendant are secondary to the organizational interests of the court, which evolve in part from the necessity of processing large inputs of violators.

Feeley (1973) clarifies the organizational structure of the criminal justice system by contrasting what he terms the "rational-goal model" of the system with the functional systems approach. In so doing, he combines Weber's rational-legal model of organization with the goal model (Etzioni, 1960). The major distinction between these two models is that: "The rational model is concerned almost solely with means activities, while the goal model focuses attention on goal activities" (Etzioni, 1960 fn. 16,263). Feeley notes that it is possible to combine the two approaches, since in the case of criminal justice, "means and goals

merge" (409). He notes further: "While on a highly abstract level, the goal - as opposed to the means - of the criminal justice system might be stated in terms of achieving justice, this goal has no clear empirical referent or context by itself. In the dominant tradition of the West at least, the goal, justice, usually acquires meaning in a normative, legal, and empirical context, only when operationalized in terms of procedure, i.e. means. Thus, particularly in the administration of justice, the means become the end, at least in terms of viewing "organizational effectiveness" and "formal goal activities" (409). The question which Feeley poses, is how well the rational-goal model characterizes the actual organization of criminal justice. He argues that the emphasis on formal rules and decisions in studying the administration of criminal justice "tends to produce a unidimensional picture of the process by placing undue emphasis on one set of goals and rules without adequately considering other factors which are, perhaps, equally important in shaping the behavior of actors in the system" (412).

In contrast to the rational-goal model which Feeley creates for conceptual purposes, the functional systems approach views the organization of criminal

justice as a set of activities based on "cooperation, exchange, and adaptation" (413). It emphasizes that the "rules" which are followed are not necessarily the procedural rules of law, and that goals strived for need not be those that are espoused by those in the organization.

Thus, the idealized version of the criminal justice system as pursuing a single set of rational goals such as "justice" or punishment for the sake of "deterrence", can be directly contrasted with a set of actors who pursue their own rational goals according to informal rules which arise to satisfy adaptive needs. Using such a perspective, it is possible to explore not only the adaptive activities of individuals in response to changes in the organizational environment, but the different processing and punishment outcomes which such changes may produce. Elements in the environment of criminal justice, including workload pressures, which may result from disproportionately high rates of crime and arrest, are linked to final sanctioning outcomes through the effects which such factors have on administrative functioning. In addition, the composition and balance among agencies of criminal justice in terms of relative resources

and capacity is likely to affect the processing which takes place. This picture of criminal justice organization views the balance (or imbalance) between criminal justice components as dependent on environmental factors in terms of their effects on the allocation of expenditures and personnel. Factors which may influence the organizational capacity of criminal justice, and hence the sanctioning process, may then be identified.

Besides the overall goal of "doing justice", which by itself cannot be examined, the criminal court, through the production and application of punishments, has competing, and often conflicting formal goals. The goals of punishment may include rehabilitation of the offender, incapacitation, simple retribution, and general prevention of which deterrence is a part. Factors which affect the activities of the court will also ultimately affect sanctioning outcomes, and, in turn, potential deterrent effects.

The maintenance and functioning of the criminal justice system is based on norms of conflict as well as informal norms of cooperation. The combative stance of prosecutor and defense attorney was designed to insure that due process be afforded those accused

of criminal acts. In contrast to norms of conflict, however, norms of cooperation are likely to arise due to what Skolnick has termed the "administrative concerns" of actors in the system (1967;55). The defense attorney may want the best deal for his client, but may also desire to dispose of the case as expeditiously as possible. The prosecutor has great demands placed upon his time by heavy caseloads, and is responsible for not only moving cases within the system, but to the public at large. Thus, by what Skolnick portrays as "administrative convenience", the adversarial relationship is, to some degree, replaced by a system of mutually advantageous exchanges.

While it is well documented that formal organizational goals of the court may be displaced by immediate administrative concerns and goals of individual actors within the system, it is less clear how this transformation influences rates of final sanctioning, and hence, the potential effects of punishment. It is clear that the "guilty plea" system (Eisenstein, 1973) expedites the work of the court at the expense of truly innocent defendants. It is also clear that under such a system, less punishment may result due to charge reduction at

different stages of the proces, and promises of lenient sentencing. It is less clear, however, how demographic conditions outside the criminal justice system affect the resources or capacity of criminal justice agencies for making sanctioning decisions, and hence the production of final rates of punishment.

The statutory law sets limits on how criminal processing takes place. However, the law itself provides for widespread discretion for authorities at different stages of processing. This allows the task of identifying and applying sanctions to violators to adapt to changing conditions as needed. The law does not, and seemingly cannot, dictate the process itself.

#### Summary

A changing social environment which produces increased rates of criminal activities, and hence a possibly greater input of violators into criminal justice agencies, taxes the existing resources of the state to "deal with" crime. In fact, a growing body of literature suggests that in many parts of the country, courts, which must bear the burden of deciding both who is to be punished, and to what degree, are seriously overburdened with cases (Blumberg, 1967;

Casper, 1972; Downie, 1972; James, 1968; President's Commission, 1967). This fact alone would suggest that alleged general deterrent effects are at best minimal because of necessarily less frequent and less severe sanctioning by courts which are drowning in a sea of backlogged cases. In the vast majority of criminal cases it is virtually impossible for the state to administer sanctions that are both swift and severe; a non-practice which stands in direct opposition to the major tenets of deterrence doctrine. This does not disprove deterrence, but rather documents that its effects (if they exist at all) are likely to be greatly reduced in practice.

Thus, the major question that arises is not whether deterrence in the abstract is capable of working, but rather whether deterrence is likely to operate given the practices of American criminal justice.

### III. LITERATURE REVIEW

#### Introduction

The theory of criminal deterrence provides one of the basic rationales for the use of punishment in modern society. It first appeared in the classic writings of Bentham and Beccaria, and has had major influence on thought about criminal law and policy ever since. Systematic empirical research on this subject has grown within the past 10 years. The evidence required to investigate this proposition is beginning to accumulate.

Johannes Andenaes, one of the most respected theorists of deterrence has taken note of this state of affairs. He writes:

While general prevention has occupied and still occupies a central position in the philosophy of criminal law, in penal legislation and in the sentencing policies of the courts, it is almost totally neglected in criminology and sociology. It is a deplorable fact that practically no research is being carried out on the subject. In both current criminological debates and in the literature of criminology, statements about general prevention are often dogmatic and emotional.  
(1966:40)

The situation has changed greatly since Andenaes' assessment. A number of social scientists

(Gibbs, 1968; Schwartz, 1968; Gray and Martin, 1969; Tittle, 1969; Chiricos and Walde, 1970; Bean and Cushing, 1971; Logan, 1972; Tittle and Rowe, 1974) have been attempting to examine the validity of general deterrence. Most of these researchers claim to have found evidence indicating that the certainty and severity of punishment (certainty playing a greater role than severity) are instrumental in deterring criminal behavior. The validity of this research, however, is open to question.

These researchers examine the effects of penal sanctions on rates of serious crimes in the population. This method aims at ascertaining the "general effects" of penal threats on those in the population who have not been incarcerated, as opposed to the "special effects" of penal sanctions on those who have been punished.

Despite the claims made by these researchers as to the ability of penal sanctions to deter criminal behaviors in the population, there are several reasons to question their interpretation of the data. First, the studies in question are essentially uncritical of statistics on crime and imprisonment. The sources of data for most of these studies are the FBI's Uniform

Crime Reports and the National Prisoner Statistics, published by the Federal Bureau of Prisons. The problem of constructing meaningful indices with these data is mentioned in some of the studies, but Tittle, among others, claims that the problem is intractable. In deterrence research there has been no correction for:

- 1) the underreporting of crime in official statistics,
- 2) the absence of data on the institutionalization of juvenile offenders, such data not appearing in official statistics,
- 3) multiple crimes that are committed by the same individual,
- 4) the lack of comparability of crime categories of the two data sources, and
- 5) the effects of different crime reporting methods of police agencies.

National scale research on the relation between crime and punishment makes corrections in the data difficult, if not impossible and increases the probability of random errors. Even using states as units of analysis will also hide differences in court sanctioning activities that occur naturally at the county level. Research using smaller units of analysis may enable investigators to measure sanctioning activities at the county level thereby revealing important differences between relevant jurisdictions.

Second, little attention has been paid to the effects of other factors known to be associated with crime rate, such as unemployment, urbanization, race and age compositions of areas, and class and cultural differences (Wolfgang, 1968). Some attempts have been made to compensate for the effects of such variables (Tittle, 1969; Bean and Cushing, 1971; Tittle and Rowe, 1973) but even these cases are inadequate as there are not enough antecedent test factors examined to give support to the conclusion that penal threats deter crime.

As Hirschi and Selvin note: there are three conditions which must be satisfied before causal inference can be made. They are: "association, causal order, and lack of spuriousness" (1973:38). Past studies satisfy only the first condition in establishing causality, that is, they show that a weak-to-moderate negative relation exists between penal sanctioning and crime. They do not show, however, that the direction of causality coincides with the model of deterrence, or that the relation remains unaffected when test factors are introduced.

The most crucial aspect of the problem lies in the propensity of deterrence investigators to

construct limited models of crime and punishment that focus on one-way causation, thereby omitting the possible effects of rates of crime on sanctioning activities of penal and judicial systems. Without examining this alternative model, research on the relation between crime and punishment is incomplete. High volumes of crimes may overburden judicial and penal machinery and thus lower sanctioning levels; a theoretical possibility which some deterrence researchers fail to examine empirically. In a recent study preliminary to the research reported in this monograph, Pontell (1978) has found that the effect of crime rates on subsequent punishing activities are greater than the affect of punishing activities on subsequent crime rates.

Empirical research on the general deterrent effect of penal sanctions is plagued with these three main problems. Deterrence researchers admit that there is room for improvement. As Tittle and Logan note:

Productive outcomes will necessitate sharper definitions and conceptual formulations than have typically been employed in the past. Moreover, in an area so prone to ideological disputation, considerable effort may be required simply

to keep alive a spirit of objective inquiry. Progress, therefore, will not be easily accomplished. But if our main objective is to understand social order, we must accept the challenge and continue to seek empirical answers to many long-neglected questions concerning negative sanctions and behavior (1973:388).

These are strong accusations. They fly in the face of much received wisdom. But if they are correct, they may guide further research and policy in this area. It will therefore be useful to take a close look at the studies that have been done by sociologists on the relation between punishment and crime.

#### Sociological Studies Of The General Deterrent Effect Of Imprisonment

Gibbs (1968) published the first important sociological study on the general deterrent effect of imprisonment. Considering only the crime of homicide, and using the state as the unit of analysis, Gibbs found that states with high levels of certainty and severity of punishment also have low crime rates; a finding which appeared to support deterrence theory. These results sparked new interest in the deterrence problem among sociologists. Naturally enough perhaps, Gibbs was among the first to issue the implications

of these findings.

Employing Uniform Crime Reports and National Prisoner Statistics as data sources, Gibbs, for the first time, introduced operational definitions of certainty and severity of punishment. The index of certainty of punishment consisted of the number of state prison admissions for homicide in 1960 divided by the mean number of homicides known to police for 1959-1960. The index of severity of punishment was "the median number of months served on a homicide sentence by all persons in prison on December 31, 1960." Because no empirical support is given for a causal order of the variables, and no control factors are employed in the analysis, Gibbs is cautious about inferring causal effects. He notes: ". . . all that can be said of the findings is that they question the common assertion that no evidence exists of the relationship between legal reactions to crime and the crime rate" (1968:529-530).

It should be noted, however, that Gibbs assumes a priori, (according to the deterrence doctrine) that the relation between homicide rate and punishment is primarily one-way; that is, punishment negatively affecting homicide rate. This assumption led him to

take measures of punishment which preceded in time those for homicide rate. Thus, he did not test whether homicide rates had any effect on certainty or severity of punishment.

Schwartz (1968) published a study of the deterrent effect of severity of punishment at about the same time as Gibbs. Using Pennsylvania data on rape and attempted rape, Schwartz looks at variations in these offenses in the city of Philadelphia before and after statutory penalties were increased in 1966. He concludes:

". . . Philadelphia found no relief from forcible and attempted rape either during the excitement leading up to the imposition of stronger penalties for these offenses or after the imposition itself. This holds true with respect to both the frequency and intensity of these crimes. We are therefore bound to conclude that Pennsylvania's new deterrent strategy against rape was a failure as far as Philadelphia is concerned" (1968:514).

Schwartz did not employ the same data or indexes as did Gibbs, so the results of the studies are not directly comparable. However, his results support the contention that changes in statutory penalties alone may have little effect on crime rate, and therefore contradict the pro-deterrent implications

of Gibbs' research.

Gray and Martin (1969) re-analyzed the data used by Gibbs by employing multiple correlation and regression techniques. Unlike Gibbs, they treat the data in interval form, preserving the original information which they contain. There are no corrections made in the data however, which make them subject to the problems mentioned earlier.

A simple linear regression model of the effects of certainty and severity of punishment on homicide rate reveals that severity is more important than certainty in predicting homicide rate. The association, however, is extremely low. With no control variables included in the model, severity explains 13.5% of the variation in homicide rate, while certainty explains only 7.9%.

Gray and Martin notice, however, that the lower the homicide rate, the less the association with certainty and severity of punishment - an observation which suggests a nonlinear relation. Using a curvilinear model, they find the same patterns as in the linear one, with even higher correlation ratios. They conclude that the curvilinear model is preferable to the linear one, in that: it explains nearly

twice the variation in homicide rate, and it makes more sensible predictions - the linear model predicts negative homicide rates; a logical impossibility.

Thus, the study by Gray and Martin reinforces the notion that punishment deters crime. The investigators differ with Gibbs, however, as far as the importance of severity of punishment is concerned. They find that severity may be of greater importance than Gibbs had originally claimed. Like Gibbs, they are somewhat cautious in their conclusion; they make no claims as to establishing causality. They note:

"Our model suggests that halving either certainty or severity of punishment will tend to double the crime rate, and vice versa; halving both will quadruple the crime rate, and doubling both will cut the crime rate to one-fourth its previous value-provided causality holds, a matter which is not testable with these data." (394)

The entire argument of Gray and Martin hinges on the assumption of causality among the variables. Yet, they make no attempt to address it with available data. In addition, as the previous quote indicates, they are quite comfortable with the idea that punishment rates are manipulatable by criminal justice authorities. This assumption, among others, in deterrence

research will be addressed in more detail in the following section.

Bean and Cushing (1971) also use regression analysis to re-analyze Gibbs' data. They replicate the finding of Gray and Martin (1969) that severity may be of greater importance than Gibbs had claimed. They introduce region of the U.S. (north and south) as additional explanatory variable, and find that it accounts for 62.3 percent of the variation in homicide rate, while "severity and certainty of punishment account for an additional 7.3 percent, an amount seemingly small but statistically significant" (1971:286). It remains to be seen whether or not additional controls would lessen the explanatory power of punishment even further.<sup>1</sup>

Citing Wolfgang (1961), the investigators attribute the relation between region and homicide rate to the higher proportion of blacks in the south.

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1. I will not discuss usage of measures of statistical significance as that matter is thoroughly treated in Hanan Selvin and Steven Finch, "Survey Analysis" in William Kruskal and Judith Tanur, (eds.) International Encyclopedia of Statistics, N.Y. The Free Press, forthcoming, 1979.

They then proceed to substitute proportion black for region as a control variable, and find that the proportion of the variance explained by the punishment variables decreases from 7.3 percent to 5.2 percent. Again, it remains to be seen whether controlling for other causal factors would lessen the explanatory power of punishment to the point where it might become entirely negligible in explaining homicide rate; a possibility which the investigators do not mention.

The authors conclude on a more optimistic note; "after controlling for the substantial influence of proportion black as an etiological factor, the variable measuring legal reactions to crime retained its association with criminal homicide rate in a direction consistent with the deterrence hypothesis." (289)

Without additional control factors, or an adequate analysis of the directionality of relation, this study adds very little to previous results. If anything, it shows how little influence incarceration may have on homicide rate when only one etiological factor is controlled. Thus, even if deterrence theorists show a deterrent effect, it is a very minor one compared to other phenomena related to reported crime.

Using indexes similar to those employed by Gibbs, Tittle (1969) examines the effects of punishment on seven major felonies and a category of "total felonies". Tittle realizes that defects exist in the data, but assumes that the discrepancies do not vary from state to state. Even if this assumption is correct however, the severity and certainty indexes which Tittle constructed contain discrepancies because of non-comparability of crime categories across states. This is true for all studies employing such indexes using states as units of analysis.

Tittle (1969), as does Gibbs (1968), ranks the states according to their index scores, assigning an ordinal score to each state. Using Kendall's Tau as a measure of association, Tittle finds consistent negative associations for certainty, but also finds that all crimes except homicide are positively related to severity. Unlike Gibbs (1968), and Gray and Martin (1969), Tittle finds little evidence for an additive effect of certainty and severity of punishment (1969:417).

Tittle also controls for the following variables: urbanization, educational composition, age composition, sex composition, and level of "modernism".

He reports that all controls except urbanization have no effect on the relation between punishment and crime. In low urbanized states, the relation between certainty of punishment and total offenses is strongest (-.36), while in highly urbanized states the relation is only (-.16). Tittle is aware that this does not necessarily indicate that punishment has a deterrent effect. He concludes that:

"It is reasonably clear that punishment, does have some relationship to the amount of crime that becomes known to the police. This may be interpreted in several ways. It may be taken as evidence that the possibility of legal punishment has a deterrent effect. An alternative possibility is that low crime rates produce greater certainty of punishment" (419).

Tittle seems to favor the former interpretation however.

He states further:

"The data considered here do not permit full understanding of these phenomena, but the findings are sufficiently impressive to suggest that sociologists at least take the idea of deterrence seriously. It seems imperative that adequate explanation of societal patterns of conformity-deviance will require attention to official reaction to deviance" (420).

Like Gibbs, and Gray and Martin, Tittle shows only that a relation between crime and punishment may

exist; unlike previous studies, his employs control factors. Without adequate attention towards the directionality of the relation, however, Tittle's conclusion as to the deterrent effect of certainty of punishment seems premature, if justified at all.

Following Tittle's study, Chiricos and Waldo (1970) attempt to measure changes in crime rates which follow changes in certainty and severity of punishment, in addition to lagged correlation of these variables. Using the same data sources employed by Gibbs (1968) and Tittle (1969), and Phi-coefficients as measures of association, they find low to moderate associations between certainty of punishment and six major felonies, for three different time periods. For severity however, they find mostly weak positive associations. In contrast with Gibbs (1968), Tittle (1969), and Gray and Martin (1969), they find no consistent support for the notion that severity of punishment deters homicides, or any other major felony.

Their analysis of percentage change in certainty and severity of punishment and rates of crimes shows little support for the deterrence hypothesis. The relations between percentage change in certainty of punishment and crime rate "are both inconsistent

in direction, and low in magnitude" (208). They conclude:

"In brief, these data provide no support for the hypothesis that increased certainty of punishment will be followed by decreased levels of crime, or that decreased levels of certainty will be followed by increased crime". (208)

The same inconsistent and weak relations are found for percent change in severity and crime rate.

Chiricos and Waldo explain the inconsistencies among their results, and earlier, more supportive findings of deterrence, as possibly stemming from a statistical bias which arises due to similar terms in the ratios that are correlated (certainty of punishment and crime rate). Specifically, they claim that the similar term "crimes known to police", which is present in both the denominator of the certainty index, and the numerator of crime rate, spuriously induces negative relations between certainty of punishment and crime rate. They argue further that Tittle's (1969) test for spuriousness is inadequate, and after re-computing the test themselves, claim that: "Tittle's (1969) findings for specific offenses probably do not exceed what could be "automatically and spuriously produced" by the similarity of terms in his certainty

and deviance indices." (213)

Besides this serious charge, they argue that available aggregate data are not reliable enough for research on deterrence. They are at odds with Gibbs (1968) and Tittle (1969), who, while concerned with deficiencies in the data, suggest that they still should be used. Chiricos and Waldo suggest that future research should not be based on these data, and that perhaps studies which examine individual cases would be more productive.

Logan (1971) replied to the scepticism voiced by Chiricos and Waldo (1970), pointing out that they had: 1) used statistically unreliable measures of change (cf. Bohrnstedt, 1969), 2) chosen arbitrary points in time for measuring change, and 3) reached findings similar to Tittle's using the lagged correlation technique, even though their results were weaker. In addition, he argues that the simulation tests used by Tittle (1969) and Chiricos and Waldo (1970) are inadequate for assessing spuriousness in the ratio correlations because such tests assume that the terms in the ratios (imprisonments, crimes, and population) are unrelated to each other - when in fact, they are all positively related. Logan maintains that part

correlation is the most satisfactory method for testing spuriousness due to an artifactual effect. In part correlation, one variable is related to a second from which the effects of a third variable have been removed. Using this technique, Logan correlates crime rate with certainty of punishment after removing the effects of the common term crime, from the certainty index. He finds that relations between certainty of punishment and crime rate weaken somewhat, but are still consistently negative. He concludes that these relations are not due to a mathematical artifact (as one measure increases, the other will tend to decrease).

Logan points out however, that the "excess" negative relation found by zero-order correlation is not necessarily spurious. Whether it is or isn't spurious depends on whether the relation between certainty of punishment and crime rate is considered to be a purely mathematical one, or a causal association. If it is assumed to be a matter of mathematical artifice, then part correlation correctly assesses the relation. On the other hand, however, if the relation is considered to be causal, the excess produced by zero-order correlation may not be spurious (at least not by an artifactual effect). Regarding the

possibility of causality, Logan states:

"It may be that the number of crimes places a strain on the legal system, which may lower certainty, or the level of certainty may negatively affect (by deterrence) the absolute number of crimes as well as the crime rate. Or perhaps some third variable, like inefficiency and backlog in the courts, is positively related to the number of crimes and negatively related to certainty of imprisonment." (283)

Logan, although aware of conditions which may affect the generation of punishment, cannot adequately assess these alternative models due to the relatively narrow scope of deterrence studies. It becomes necessary to ascertain, therefore, the responses by police, agencies, courts and prisons to serious crimes, as well as the effects that these institutions may or may not have (through deterrence) on subsequent rates of crime. This crucial issue of "criminal justice capacity" would appear to be directly tied to the operation of deterrence through the activities of criminal justice agencies. Without the capacity to deal with workloads, the activities of criminal justice agencies would undermine deterrence doctrine in that penalties would not be "swift" or "severe".

In conclusion, Logan points out that the problem of spuriousness due to indexical artifice should

probably not have been raised in this context. (283) He cites statistical studies which show that when the ratios being correlated are theoretically meaningful as ratios, the problem of spuriousness does not arise (283-284). He also argues against the position taken by Chiricos and Waldo (1970) regarding the reliability of the data. Logan concludes: ". . . the question of how useful aggregate data are in producing consistent findings on deterrence hypotheses can only be answered by further research, preferably involving more refined techniques and more recent data". (284)

Thus, according to Logan (1971), the findings of Chiricos and Waldo (1970) do not, as the authors maintain, question previous research on deterrence.

In a study published after his critique of Chiricos and Waldo (1970), Logan (1972) refines and extends the analyses of Gibbs (1968), Gray and Martin (1969), Tittle (1969), and Chiricos and Waldo (1970). Using the same indexes, but treating the data on an interval scale, Logan examines the relation between punishment and crime through the use of regression techniques. After examining scatterplots of the data, he concludes that the data best fit a curvilinear model of punishment and crime; that is, the data form

a downward curve which is steep at low levels of certainty and flatter at higher levels of certainty. Correlations of certainty and rates of crimes using both raw scores (the linear model) and log transformations (the curvilinear model) show that the curvilinear model produces slightly stronger associations for some crimes only. For severity of punishment, he finds consistently low negative relations only at low levels of certainty, which suggests some interactive effect between certainty and severity of punishment.

Unlike previous researchers, Logan (1972) attempts to empirically examine the possibility that there is some causal effect of the number of crimes on certainty of punishment; that is, crimes may make demands on the legal system that could lower certainty. Partial correlations are employed to ascertain this effect. Logan admits that this approach may be inadequate for this test, but the results show that when the effects of number of crimes known to police is removed from the measure of crime rate, the relation between certainty and crime rate remain consistently negative. This result is questionable however, since Logan has removed the effects of crimes which are measured later in time than those used to construct the certainty of

punishment index. His data are therefore inadequate for measuring effects of crime on punishment levels. It is also likely that the associations are inflated, since no control variables were introduced.

While not claiming to have shown a causal relation between punishment and crime, Logan states: ". . . the data have clearly shown an association between crime and punishment that is strong enough to warrant not only further research on deterrence but perhaps a general reexamination of some of the old rationalistic and utilitarian images of criminal behavior that criminologists may have too hastily abandoned." (73) Encouraging as this may sound, Logan's analysis has shown only that a relation between crime and punishment may exist, and hence has not gone far beyond the findings of previous studies. Control factors need to be examined, and the directionality of the relation must still be ascertained before deterrence theory can be supported.

Another study by Tittle and Rowe (1974) is worth mentioning although it does not deal with penal sanctions. The research examines another legal sanction - certainty of arrest, as well as different units of analysis - cities and counties in Florida. The

investigators find evidence for the notion that certainty of arrest must reach a critical level before it becomes associated with decreasing crime rates. There is no use of time series data in this study however, which makes statements about the directionality of the relation problematic.

Scatterplots of the variables show that certainty of arrest must reach a 30 percent level before becoming associated with crime rate. On this basis, Tittle and Rowe conclude: "The findings in this study suggest that certainty of punishment is an important influence on the degree of conformity that can be expected in a political unit, but that this influence does not show noticeable results until certainty has reached at least moderate levels." (459)

The introduction of seven demographic control factors does not alter this conclusion. The scatterplot for cities can be interpreted in a different light however. It seems that the "critical level" of certainty of arrest is reached by only 29 out of 178 areas. The researchers do not ask why such a small proportion of cities in Florida reach the level needed to "deter" crime (if such a level exists at all). An alternative interpretation could be that

low levels of crime allow for higher rates of certainty of arrest. The investigators dismiss this possibility out of hand. It should also be noted that findings from this study are not directly comparable to those of previous deterrence studies since it deals with certainty of arrest rather than imprisonment.

### Summary

General deterrence is essentially a phenomenon which reflects individual behavior (weighing of costs and benefits and subsequent action). Research on this topic has been limited largely to the study of aggregate data on punishment and crime however, due to the absence of individual data on criminal activities, perceptions of sanctions, and availability of alternatives to crime. (NAS - 1978). The foregoing review has treated early sociological attempts to explore the deterrence question through analyses of what statisticians call "observational data". Studies employing experimental and quasi-experimental research designs are not addressed in detail here. These latter studies have as a major shortcoming the inapplicability of results to "real" settings in criminal justice. The "controlled" conditions of experiments do not approach

the reality of the structure of crime and punishment in society. What these studies can tell us is that under certain circumstances sanctions may deter. It is questionable whether or not these findings can be generalized to "crime - prone" subgroups in society however. The studies also ignore the legal reality of the generation and administration of criminal punishments by formal institutions of social control.

The economics literature on deterrence has also grown in recent years. Economists have tried to tackle the problem of reciprocity in the relation between crime and punishment. They have used simultaneous equations to disentangle effects of punishment on crime and vice versa. Ehrlich's (1973) work is amongst the most prominent in the economics literature. Because of identification restrictions in simultaneous equation techniques however, Ehrlich's results on the deterrent efficacy of incarceration are difficult to assess.

A recent National Academy of Sciences report notes two major obstacles in interpreting Ehrlich's and other economists results on the general deterrent effect of incarceration. First, the effects of incapacitation are not controlled, thereby confounding

the estimated effect of deterrence with effects of incapacitation. Second, and more importantly, the identification restrictions which must be employed in estimating simultaneous effects are generally not reasonable. This is true for all such studies which estimate simultaneous effects, not just Ehrlich's. The report notes: (1978:40) "To obtain identification, Ehrlich's model assumes that demographic composition, urbanization, and economic conditions affect the imprisonment risk or police expenditures but do not affect crime rates. However the strong interconnections among the many socio-economic and demographic correlates of the crime rate make it difficult to determine which among them do or do not have a causal association with crime. Furthermore, it is simply not plausible to assume that none of the variables used by Ehrlich for identification causally affects crime while also assuming that each does influence either the probability of imprisonment, or police expenditures per capita, or both."<sup>2</sup>

The report concludes that the identification problem will continue to confound econometric research

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2. For a discussion of the difficulty in causal modeling with aggregate data, see Hirschi and Selvin's treatment of Lander's work in Principles of Survey Analysis (1973).

on deterrence until plausible identification restrictions can be found. The report states further that no definitive conclusions can be drawn from studies assuming simultaneous relationships due to basic sources of error introduced through identification restrictions. "Assuming that there is a simultaneous relationship between crime rates and imprisonment sanctions, the Panel concludes that, because the potential sources of error in the estimates of the deterrent effect of these sanctions are so basic and the results sufficiently divergent, no sound, empirically based conclusions can be drawn about the existence of the effect, and certainly not about its magnitude." (1978:42) Thus even when employing a sophisticated methodology to study deterrence researchers still fall short in identifying "deterrent effects".

These studies are no doubt a response to the "failure" of modern criminology to incorporate the idea that legal sanctions may, under certain circumstances, reduce deviant behavior. Modern writers emphasize the notions of socialization into subcultures, failures of conventional socialization, psychodynamic problems, pressures generated by social

contexts, and the reactions of others to the behavior in question (Cohen, 1966). While some deterrence researchers claim that social scientists have prematurely dismissed the concept of criminal deterrence, they do not adequately address the possibility that crime rates may affect sanctioning activities in the criminal justice system.

Although deterrence researchers claim to have found evidence that penal sanctions reduce crime, they have only demonstrated that a slight negative relation may exist. This association does not necessarily imply that punishment reduces crime. Most of these studies do not consider control factors related to criminal processing which could considerably alter the relation between crime and punishment. In addition, the issue of directionality is not yet resolved. Do penal threats lessen crime rates by instilling fear in potential criminals, or does crime, affected by etiological factors, overburden existing criminal justice machinery, and thus lower it's capacity to generate and administer sanctions? Deterrence researchers have not come to grips with this fundamental question.

The model of crime and punishment which deterrence researchers employ is especially dubious in

light of the overloading of American courts and prisons and severe manpower and resource shortages throughout state criminal justice systems. Although very little is presently known about factors which influence criminal punishment levels, certain trends in punishment are clear. Incarceration of violators has been declining gradually for the last several decades. Suspended sentencing, parole, and probation have come to replace imprisonment as major forms of punishment. This trend could indicate that penal practice has become much less reliant than formerly upon the logic of deterrence as a basis for operation. The widespread use of plea bargaining in criminal cases is another indication that statutory penalties are being "watered down" which may indicate the general inability of legal institutions to apply certain and severe sanctions to suspected criminals.

In view of these considerations, it is reasonable to ask whether courts and prisons are capable of generating sufficiently frequent and sufficiently strong sanctions to deter potential criminals. Existing institutions are overburdened by the work of processing violators. Further increases in the volume of crime may therefore lead to further reductions in

the certainty and severity of punishment. Deterrence researchers may thus continue to find negative correlations between crime and punishment; these correlations may even become stronger. Obviously it would be a mistake to attribute such findings to the deterrent effects of punishment. Yet deterrence researchers have concluded that sanctions deter crime on the basis of precisely such results.

As noted earlier, some investigators are aware of this basic problem. They claim that it is insoluble, however, because it is not possible to measure the effects of crime on punishment. For example, Tittle has written:

"High rates of crime could result in overcrowded prison facilities, thus inducing judicial personnel to make greater use of probation and suspended sentences. This would lead to a reduction in certainty of punishment as conceptualized here. Unfortunately judicial statistics are not adequate to test this alternative (1969:420).

Besides overcrowded prison facilities, high rates of crime could result in overcrowding of courts, a possibility which Tittle did not consider. It is possible to assess the plausibility of this alternative explanation by changing the time order of the

variables. This has been accomplished in a recent work by Pontell (1978) where it was shown that crime rates may affect sanctioning more than vice versa.

One of the major unexamined assumptions in the doctrine of deterrence is that the criminal justice system is capable of generating sanctions with sufficient strength and certainty to instill in potential violators a fear of punishment. It is no doubt true that people sometimes refrain from committing criminal acts for fear of possible negative legal consequences. It is also surely true that "decisions" depend on what most people believe will happen, rather than on objective information about what actually does happen (Jensen, 1969).

The question that remains unanswered (and largely unasked) is whether the criminal justice system can actually achieve general deterrence through its sanctioning activities. As present day circumstances may indicate, it seems at least equally, if not more likely that increasing rates of crime have limited the capacity of formal institutions of social control to legally punish criminals.

#### IV. DATA AND METHODOLOGY

##### Data Set

This study employs data on California counties for the period 1966 to 1974. Information was abstracted from reports issued by the Bureau of Criminal Statistics (BCS) in Sacramento, California. This organization is well known for its data keeping and recording efforts in the area of criminal justice activities. Information on criminal justice spending levels, arrests, crimes, convictions, and sentences were derived from this source. Other aggregate data on demographic characteristics in California counties were derived from figures kept at the Bureau of Finance in Sacramento and from the City and County Databook published by the Federal Bureau of the Census. All of these data were recorded in raw form from the sources in which they appeared, input into the computer, and transformed into comparable theoretical measures.

The years chosen for study were largely a function of the availability of such data. After meetings with officials at the BCS, it was clear that the 9 year period of 1966 through 1974 contained the only time series data which would be comparable by the data collecting process of BCS, and would provide

the necessary information for measures of crime and court sanctioning. Adequate prison data were not available from this source, and time and resource restrictions in the study precluded their collection. While these data are certainly important in assessing the system capacity model of crime and punishment, it appeared that an adequate partial analysis could be performed concentrating on the sanctions produced at the court level only. Data on prisons might be used in conjunction with that already collected in a future study in order to assess possible effects of prison overload on the sanctioning which takes place on the court level. This possibility is not examined empirically in the current analysis. The main task of this research is to report on the manifest relations among elements of social structure and criminal justice organization and functioning in order to assess the possible efficacy of deterrence doctrine in light of criminal justice practices.

#### Using Official Statistics on Crime and Sanctions

A major criticism of most quantitative studies on crime and punishment is that they take official statistics at face value, or indicative of some

individual underlying social phenomenon (see Geis, 1965 and Quinney, 1975). Official summary statistics are likely to reflect the totality of interactions of a number of underlying phenomena. For example, it is already well known that recorded rates of crime (crimes known to the police) seriously underestimate the extent of crime in society. This may appear to present no major problem when examining internal variation within a set of data (Skogan, 1974), but may lead to erroneous conclusions for other reasons. First, it is still unknown how crime rates may be influenced through the interaction of actual deviance and official attempts to record it. What crime statistics really reflect is this combination of legal capacity to record it and actual crimes. The practices of local police departments, such as patrolling methods, data recording mechanisms, interactions with different complainants, etc. -- are likely to influence the types of deviance which become recorded (Skolnick, 1967; Wilson, 1968). In addition the police concentrate their energies disproportionately on certain crimes - mainly those committed by members of the lower class. As a consequence, serious white-collar crimes are under-recorded in official statistics. Thus, official methods of

crime control and data recording may influence official rates of criminality as much, if not more than, actual amounts of such behaviors. This points to a basic inadequacy of such data, which is that they do not accurately portray the phenomenon of primary theoretical interest; actual levels of criminal behavior.

Secondly, aggregate data on crime within some geographic unit can be used only to show ecological relations with other phenomena. Official data may indeed reflect criminal justice production figures more than attributes of individuals. In particular, crimes known to the police as reported by official agencies reveal little about the criminal activities of groups of individuals in terms of their sex, age and race. Conclusions about the behavior of groups of individuals from such data is incorrect (the ecological fallacy), but inferences can be drawn concerning the unit of analysis used (state, county, census tract, etc.).

Using arrest statistics to approximate a better measure of criminal activity is of little help. They are even more likely to reflect the activities of police -- their efficiency, aggressiveness on patrol,

etc. -- than the true extent of criminal activities.

Geis (1965) notes:

"Arrest statistics reflect in myriad ways the procedures, paradoxes, and idiosyncracies involved in the business of law enforcement. For instance, an efficient police force will often become aware of a greater number of offenses and will arrest a larger number of persons than will a less efficient police organization. Summary statistical reports, taken at face value (which is the way such reports are almost always taken), imply that a better agency is less effective in reducing crime than a less capable agency, a curious juxtaposition of the facts of the situation" (65).

Besides this problem of taking such statistics at face value is the fact that they are also not fine enough to allow for a detailed understanding of what they are actually measuring. What these data really represent are total "production figures" of various criminal justice agencies. They reflect the totality of activities of legal authorities.

It is argued here that what is needed is a critical use of such figures rather than an abandonment of their use altogether. Certain assumptions will need to be made concerning their validity but they can be used to theoretical advantage once their

shortcomings are recognized. This points to what may be called "the unofficial use of official statistics". By giving criminal statistics a different meaning, i.e. as production measures of criminal justice agencies instead of traditional meanings intended by authorities, they can be used to describe and explain global relationships among variables concerning crime, law and society.

Global relationships are useful for examining the sum of lower level social processes. Hence, they may uncover unintended consequences of legal activities for the operation of the criminal justice system itself. What the criminal justice system produces in terms of crime rates and sanctions may also be linked to population characteristics through the analysis of global variables.

Statistics on court processing reflect the totality of interactive processes which occur during case disposition. Reasons for dropping charges, the background of the defendant, original charges, etc., cannot be described from these data. Rather, official statistics are affected by the totality of all interactions. At the level of the jurisdiction or criminal justice system, generalizations may be made from such

data.

The preceding discussion points to the possibility of using official statistics as production figures. Production figures of organizations are many times employed for both purposes of legitimation, that is, for perpetuating certain myths concerning the organization's functions and activities, and, for justifying increased allocations of resources. Meyer and Rowan (1977) note:

"Ceremonial criteria of worth and ceremoniously derived production functions are useful to organizations with internal participants, stockholders, the public, and the state as with IRS or the SEC. They demonstrate socially the fitness of an organization." (351)

High rates of arrest and conviction justify the activities of legal authorities. Officials are aware that such figures put them in a good light -- they are "dealing with criminals", performing efficiently, etc. -- and justify increased resources for their agencies. Criminal justice statistics generally reflect this idea of "ceremonial criteria of worth". As a consequence, their theoretical use at face value for explaining and understanding questions of interest to researchers is extremely limited. Reformulating these data may provide more theoretically meaningful

measures. Until more accurate data are made available, transforming existing data into less "official" indices may provide the only way of examining relations among crime, law, and society. This approach releases the research endeavor from examination of "ceremonial data" which are likely to cloud basic issues concerning criminal justice activities, and relationships between these activities and wider society.

In order to examine the ecological linkages among crime, the legal process, and punishment, six major areas will be examined. These are: 1) rates of felony crimes reported to the police; 2) resources per capita, in terms of both personnel and expenditures for criminal justice agencies; 3) expenditure imbalance between agencies and the degree of caseload pressure in criminal courts; 4) felony court conviction rates and method of case disposition; 5) rates of punishment produced by criminal courts in terms of sentencing outcomes; and 6) demographic features of California counties. These factors will first be examined in terms of their median values for California counties over the period 1966-1974.<sup>3</sup> They will then

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3. Demographic data available only for 1960 and 1970. Other variables for 1966-1974.

be examined in terms of their relative rates of change over the same time period. Finally, the ecological associations among these factors will be explained through the use of zero-order and partial correlations.

## V. ANALYSIS

### Percent Change in Medians

#### a. rates of crime

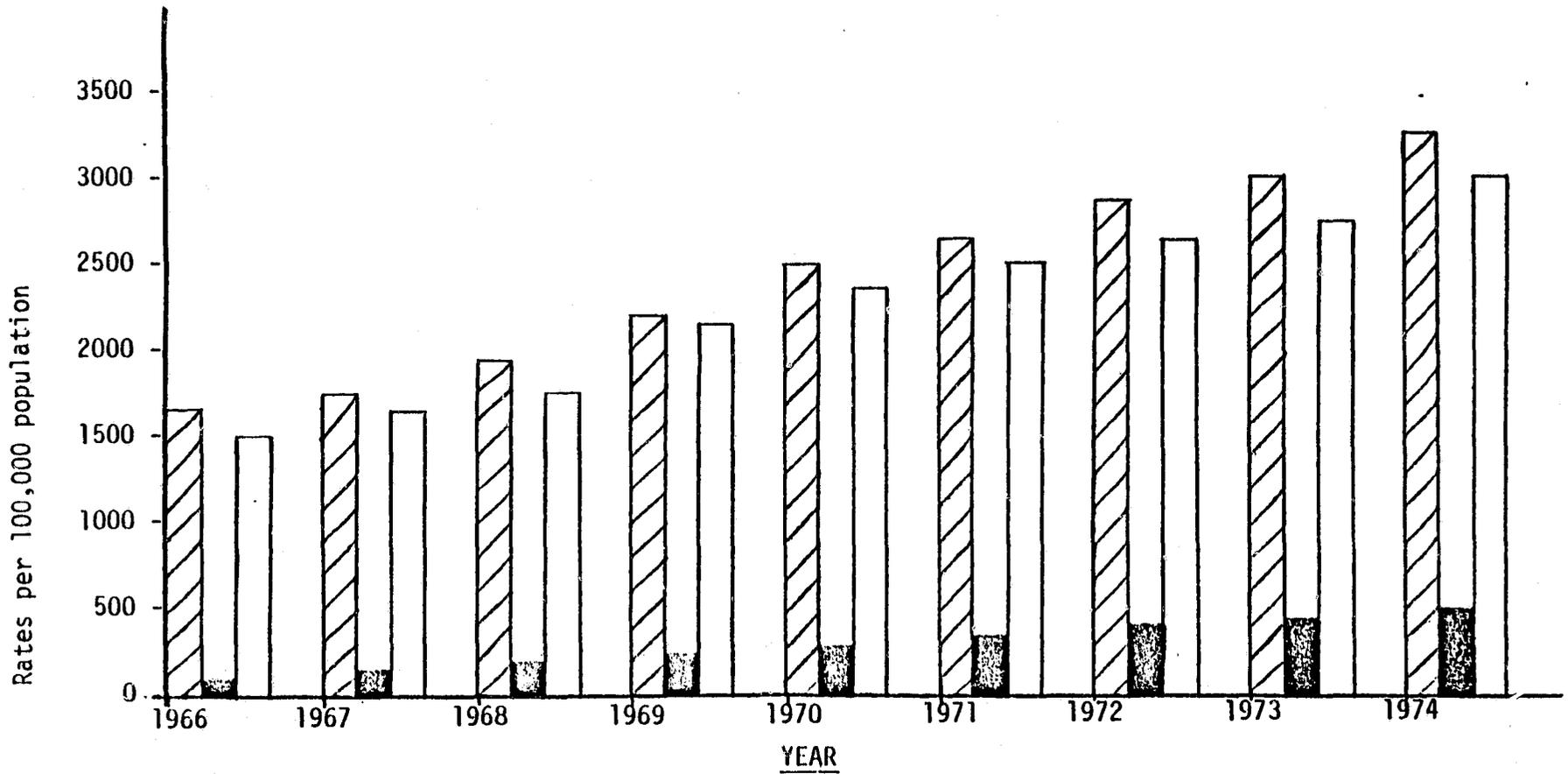
Changes in median reported rates of crime across California counties are shown in Figure one.<sup>4</sup> Of the three crime rates measured, personal crimes show the highest percent increase for the nine year period, 1966 through 1974 (167%). This is followed by the overall felony crime rate (105%) and property crime rate (94%). It is also interesting to note that on the average, reported serious property crimes out-number personal crimes by a margin of about 10 to 1. This ratio would likely be decreased if actual personal crimes became known to authorities; especially rapes and assaults.

The total felony crime rate shows a little over a 100% increase, or a doubling in the 9 year time frame examined; from 1.6 per 100 population in 1966 to 3.3 in 1974. The medians, semi-interquartile ranges, first and third quartiles, and the number of

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4. Rates of crime here include total felony crime (the seven major index offenses), property felony crimes (robbery, burglary, theft, and auto theft) and personal felony crimes (homicide, rape, and assault).

**FIGURE 1**  
**Reported Serious Crimes (Medians)**  
**California Counties**



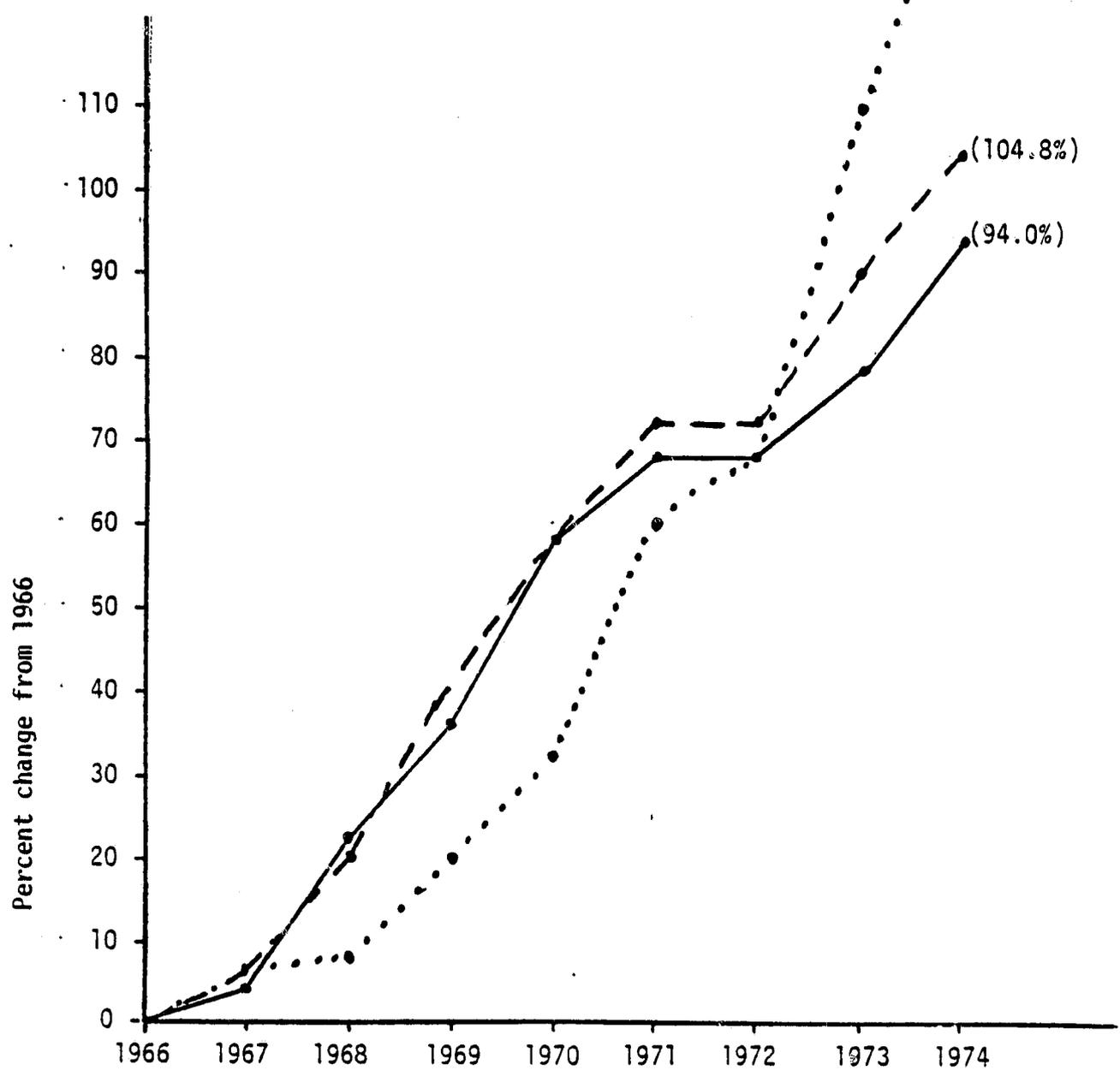
**KEY**

-  Total Felony Crime Rate
-  Seven major felonies included are: homicide, rape, assault, robbery, burglary, theft, and auto thefts.
-  Property, felony crimes (robbery, burglary, theft, auto theft)
-  Personal Felony Crimes (homicide, rape, assault)

counties on which these measures are taken are displayed in Appendix 1.

Graph 1 shows percent changes of median rates of reported crimes in California counties. All three rates of crime show about a 70% increase between 1966 and 1971. Between 1971 and 1972, there is a leveling off observed, especially for total and property crimes. Between 1972 and 1974, the last two years measured, total and property crime rates resume their upward trends, at a rate similar to that previous to 1971. The average number of personal felony crimes, however, increases dramatically between 1972 and 1974. While reported personal crimes increase by about 70% between 1966 and 1972, they show an increase of 167% through 1974. Whether this reflects only an actual increase in such crimes is questionable, and a definitive answer to this sudden increase cannot be offered. It is possible, however, that increased public awareness and social support groups and services for personal crime reporting, (for example, rape hotlines, etc.) as well as better data recording mechanisms of official agencies may be at least partly responsible for this sudden jump in violent personal crimes.

GRAPH 1  
Percent Change Medians  
Serious Felony Crime  
California Counties



KEY

- - - Serious felony crime rate
- Property felony crime rate
- Personnel crime rate

b. criminal justice resources

Figure 2 presents median levels of spending per 100,000 population for criminal justice agencies in California counties. The agencies included are police, prosecuting offices, and superior court.<sup>5</sup> The data presented in figure 2 represents total expenditures for each agency. The prosecution category includes all prosecuting resources from both the superior and lower courts. Superior court expenditures represent mainly judicial personnel costs, along with ancillary personnel (clerks, etc.). These data were not available for 1966 or 1967, leaving 7 years for study.

Figure 2 clearly shows the vast difference in average spending for police services as compared to court related services. This difference remains almost constant for the 7 years examined.

In 1968, median per capita police spending in California counties was \$15.90, compared to \$1.50 for prosecutorial services, and \$1.00 for superior court

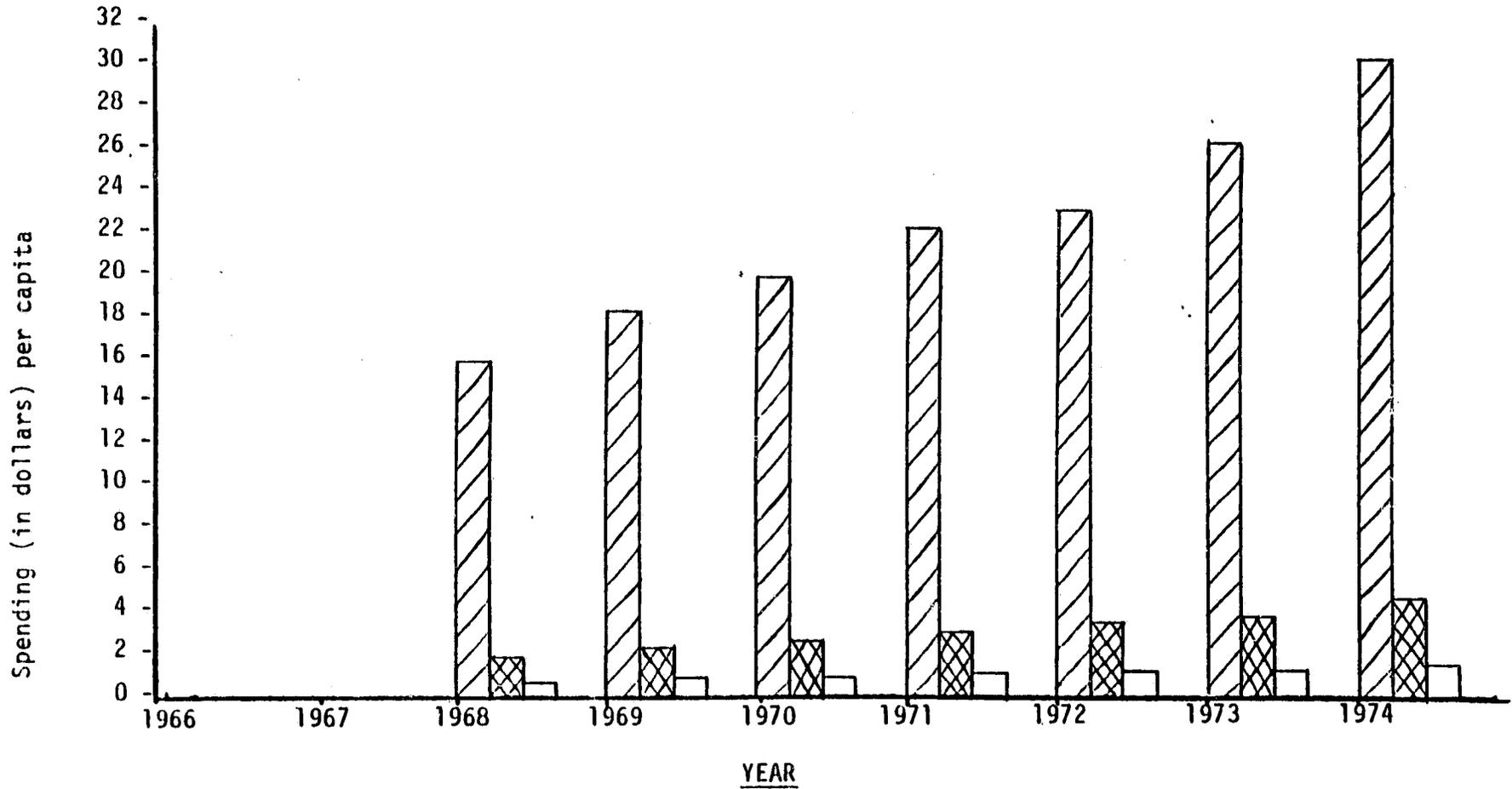
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5. Expenditure data for local jails were not available from the Bureau of Criminal Statistics from which the data set was obtained, and cost and time limitations of the study precluded securing them from other sources.

**CONTINUED**

**1 OF 3**

**FIGURE 2**  
**Criminal Justice Spending\* (Medians)**  
**California Counties**



**KEY**

-  Police (Police Department and Sheriff's office)
-  Prosecutorial
-  Superior Court

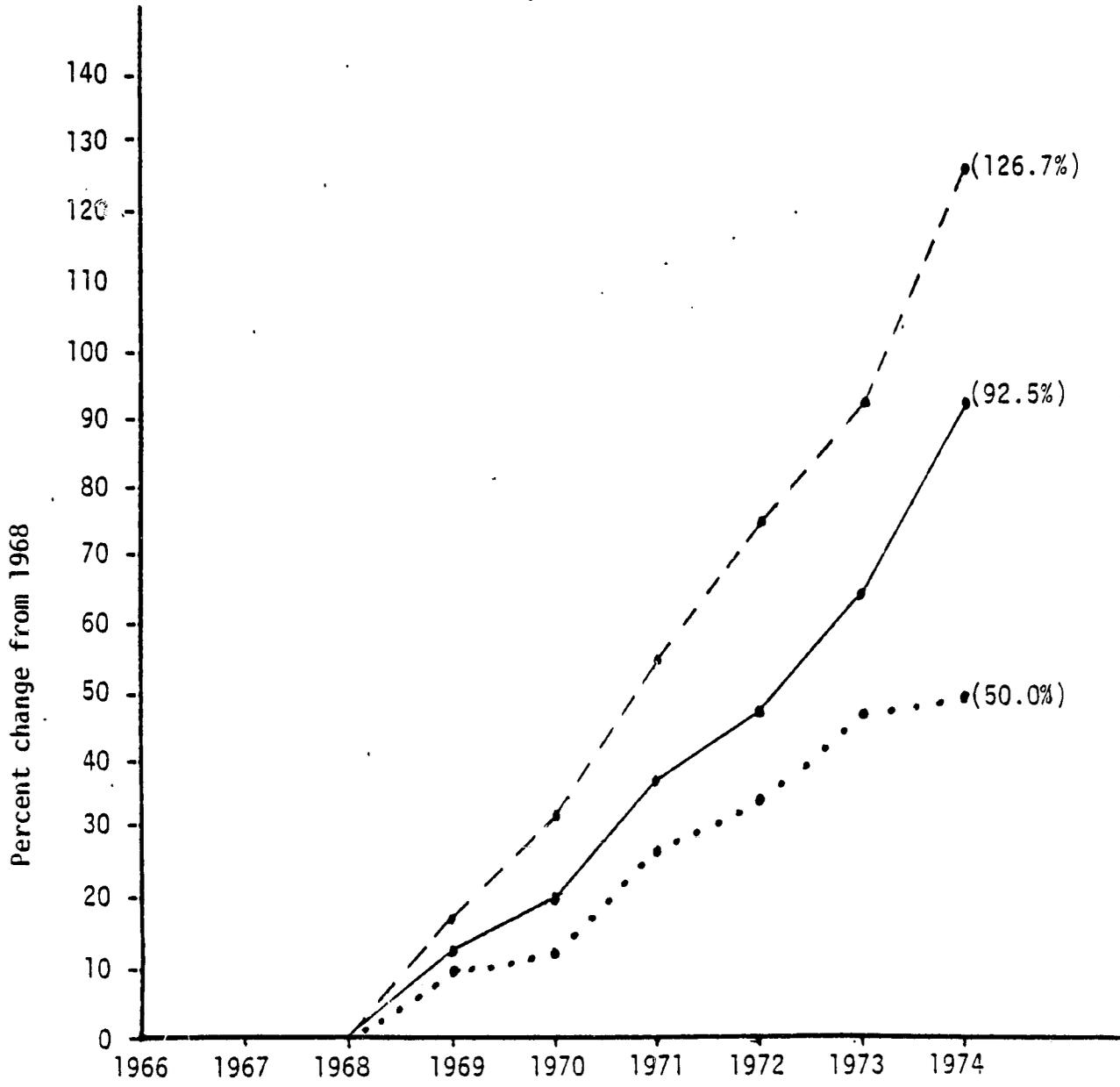
\*Excludes corrections spending

services. In 1974 these median per capita figures change to \$30.60 for police, \$3.40 for prosecution, and \$1.50 for superior court. This represents an increase in medians over the 7 year period of 92.5% for police spending, 126.7% for prosecutorial services, and 50% for superior court (see Appendix 2). While prosecutorial services show the greatest percent increase in median spending, it should be noted that for all years examined, the ratio of median police spending to median prosecutorial spending is about ten to one.

Graph 2 shows the percentage increase in median criminal justice spending levels from 1968 to 1974. Police spending shows the greatest increase between 1973 and 1974, from about a 66% increase in 1973 from 1968 to a 93% increase in 1974. Similarly, median prosecutorial spending shows an accelerated increase for the same period; from a 93% increase in 1973 to a 127% increase in 1974. Judicial expenditures show the slowest rate of increase, only 50% by 1974. The increase is fairly constant, except for a slight leveling off between 1969 and 1970.

Despite the accelerated growth of prosecutorial over police resources, the data show about a ten

GRAPH 2  
Percent Change Medians  
Criminal Justice Spending  
California Counties



KEY

- Police spending per capita
- - - Prosecutor spending per capita
- ..... Superior court spending per capita

to one ratio (police-prosecutor between median expenditures over the seven years examined. Even more pronounced is the difference in medians between police and judicial expenditures. In 1968, the ratio of median police expenditures to superior court resources is approximately sixteen to one. In 1974 this ratio increases to about twenty to one. This is important because discrepancies between criminal justice component resource levels are likely to impact on the processing of accused violators. Where this imbalance is greater, court caseloads may increase. This, in turn, may result in less certain and severe punishments due to the limited capacity of judicial and penal institutions with which to process such heavy caseloads.

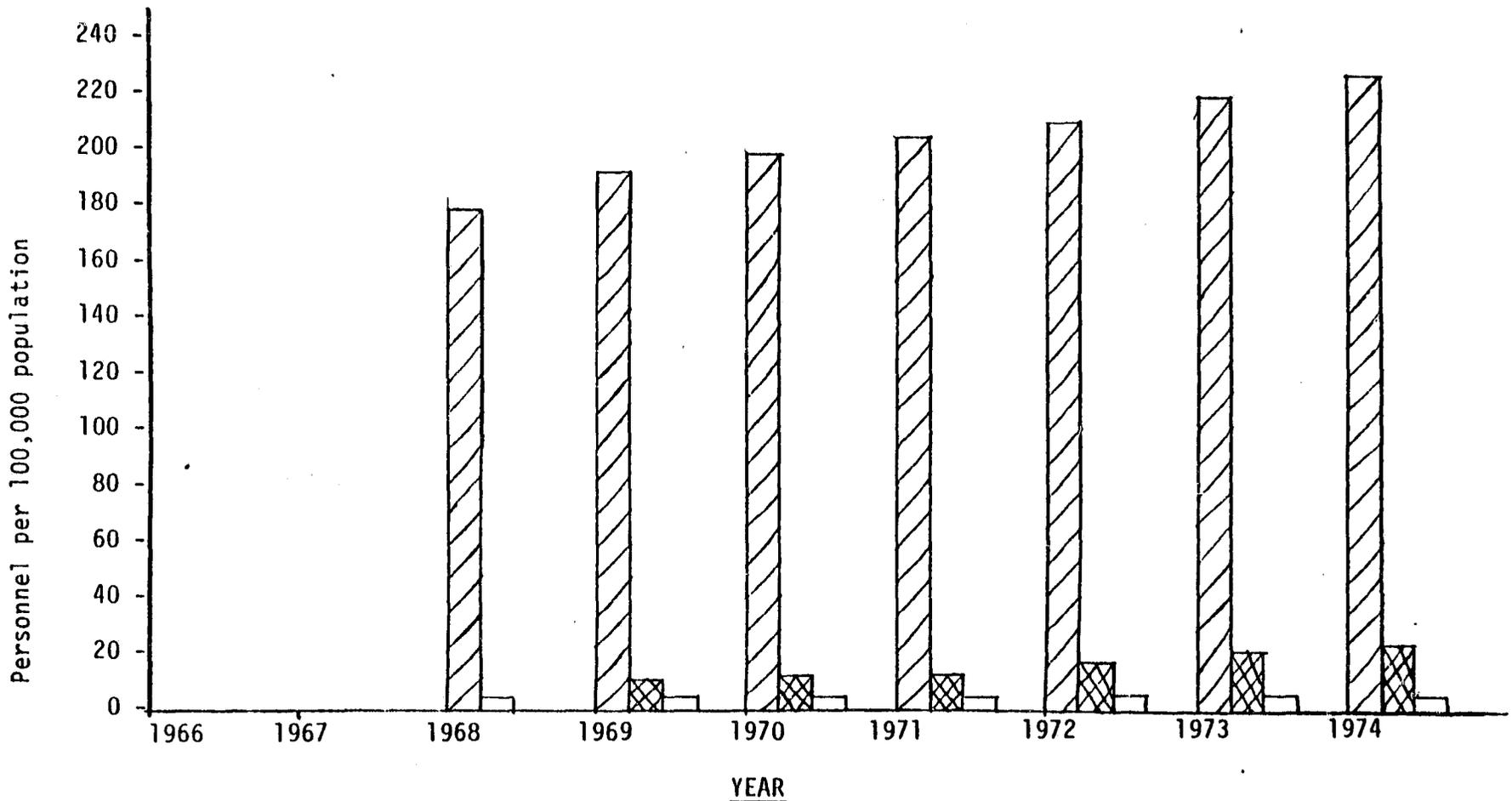
In conclusion, it should be noted that in 1974, all criminal justice expenditures (including corrections) accounted for 12.2% of total general expenditures in California. The nationwide figure is only 8.8%. Thus, California spends proportionately more on its criminal justice agencies than most other states, or the country as a whole. In this same year, California spent about 52% of its total criminal justice budget on police, 28% on corrections, 12% for

the judiciary, and 6% for legal services and prosecution (Criminal Justice Statistics Sourcebook - 1976). Nationally, these figures are 56% for police, 23% for corrections, 11% for the judiciary and 6% for legal services and prosecution. Comparatively, California spends 4% less of its criminal justice dollar on police and 5% more on corrections than the nation as a whole. These differences, however, appear to be insignificant. Overall, patterns of criminal justice spending in California are quite similar to other states, although the percentage of total expenditures allocated to criminal justice agencies is higher in California than most other states, giving the state a large criminal justice system, relative to most other areas.

c. criminal justice personnel

Figure 3 displays median rates of criminal justice personnel per 100,000 population. Personnel levels are shown for police, prosecution, and superior court. As was the case for expenditures, no data on corrections personnel were available from BCS. Also, similar to the expenditure data, the personnel figures for prosecution represent both superior and lower court services.

**FIGURE 3**  
**Criminal Justice Personnel (Medians)**  
**California Counties**



**KEY**  
 [Diagonal lines] Police  
 [Cross-hatch] Prosecution  
 [White box] Superior Court

Median levels of criminal justice personnel in California counties between 1968 and 1974 display a pattern similar to that of expenditures. The ratio of median police to prosecutorial personnel per capita is approximately ten to one for the seven year period examined. The ratio of median police to judicial personnel in superior court is about ninety to one. As found earlier for expenditures, the personnel data also reveal the disproportionately large size of the police force relative to other criminal justice agencies.

All component personnel levels show an increase over the time period measured (1968-1974). Median prosecutorial personnel (measured from 1969 to 1974) shows the largest increase, from 16 to 22 per 100,000 population - an increase of 37.5%.

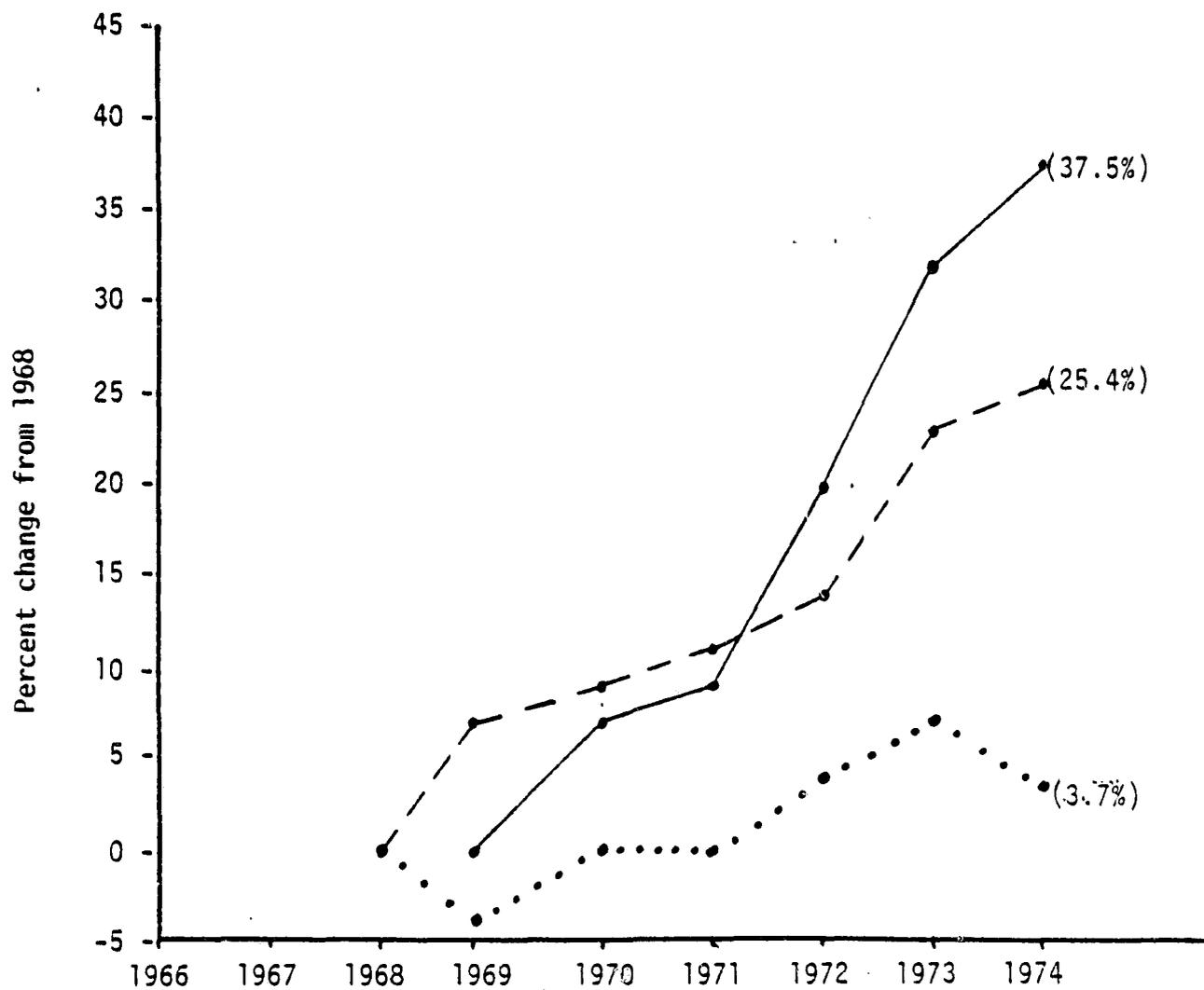
This is followed by median police personnel per capita which increases from 181 in 1968, to 227 per 100,000 population in 1974, or an increase of 25.4%. For the same time period, median superior court personnel per capita increases only 3.7%, from 2.7 to 2.8 per 100,00 population. The medians, semi-interquartile ranges, first and third quartiles and number of counties on which these measured are based

are shown in Appendix 3.

Graph 3 displays percent changes of median levels of criminal justice personnel per capita. Measured from 1969, prosecutorial personnel shows the greatest increase as of 1974 - 37.5%. It shows an increase for every year measured, and a slightly lower rate of growth between 1970-71 and 1973-74. It increased the most between 1971 and 1973. In contrast, police personnel displays a rather steady rate of growth between 1968 and 1972, increasing sharply in 1973, and resuming its previous growth rate in 1974. Superior court personnel is rather stable for the time period examined, showing a slight drop between 1968 and 1969, followed by a gradual rise until 1973 and a subsequent decline in 1974 to about its initial level in 1968.

Percent increases in criminal justice capacity measured by personnel are not as great as those for expenditures. A percent increase in median prosecutorial expenditures of 127% translates into an increase of only 38% in prosecutorial personnel. Similarly, police expenditures increased about 93% while personnel showed only a 25% increase. A 50% rise in superior court expenditures is compared to only a 4% increase in

GRAPH 3  
Percent Change Medians  
Criminal Justice Personnel  
California Counties



KEY

- Police personnel per capita
- Prosecutor personnel per capita
- ..... Superior court personnel per capita

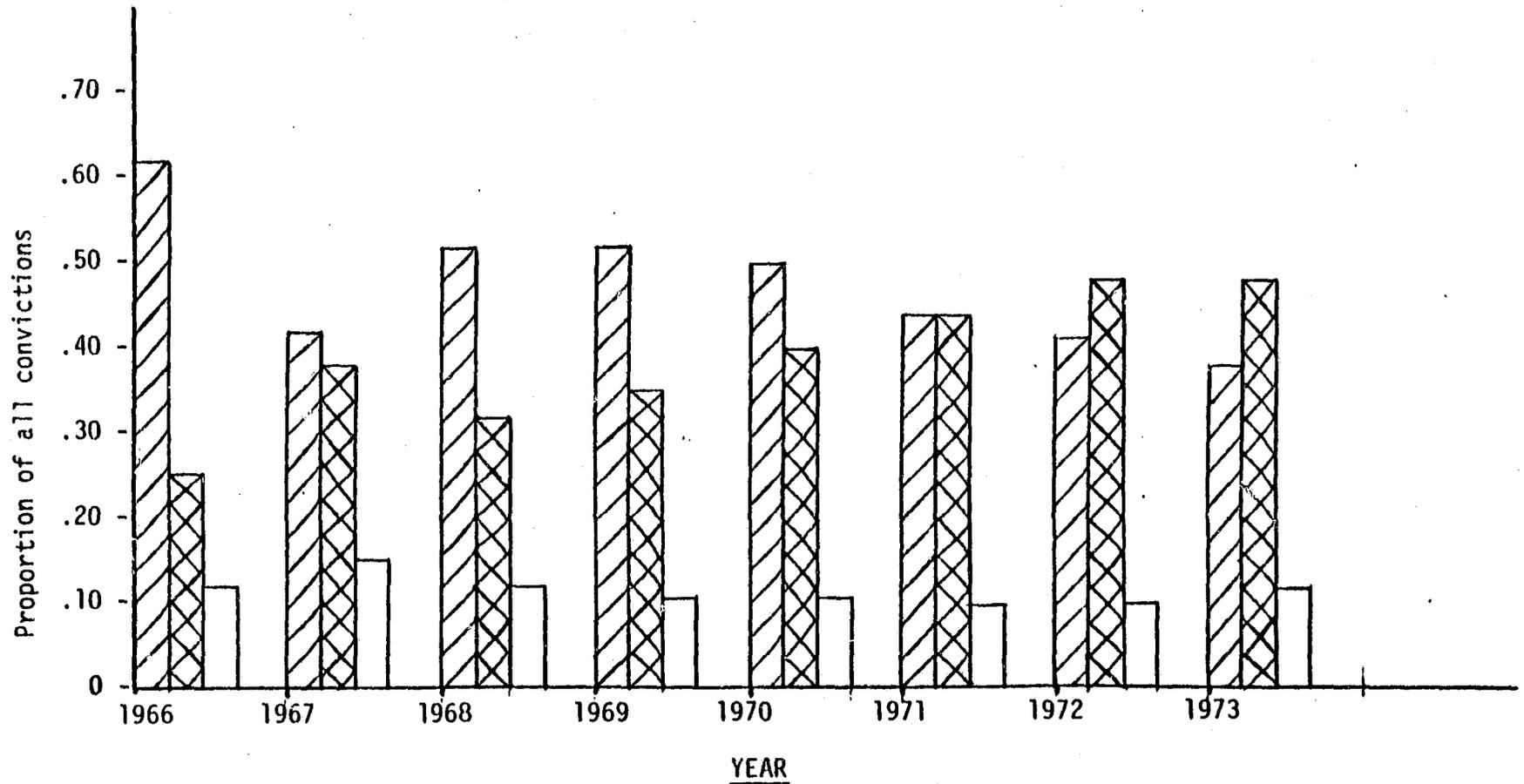
personnel. Thus, while expenditure levels show large increases between 1968 and 1974 personnel changes are low by comparison.

d. means of conviction

Figure 4 displays the median values of methods of conviction in superior courts for the period 1966 to 1973. Three means of conviction were available from the official summary statistics used in this study. They are: 1) original plea of guilty, or "fast" guilty plea, 2) changed to guilty plea, or "slow" guilty plea, and 3) tried guilty. The tried guilty category includes trials by jury, court and transcript. All three means of conviction are measured as a proportion of all convictions in the superior court, allowing a comparison of rates of processing across jurisdictions. In this form, they represent measures of adversariness at the court level; original guilty pleas showing the least adversarial proceeding, and tried guilty showing the most adversariness.

Before considering these rates of adversariness in felony courts, a comment on total convictions is needed. The conviction rate is measured as the proportion of convictions to court dispositions. In

**FIGURE 4**  
**Superior Court Means of Conviction (Medians)**  
**California Counties**



**KEY**  
 ▨ Original guilty plea  
 ▩ Changed guilty plea  
 □ Tried guilty\*

\*Includes tried by jury, court and transcript.

California counties, the median conviction rate shows little change over the eight year period studied. In 1966, the median conviction rate in superior courts was .87 or 87% of all cases disposed, compared to .89 in 1973. Thus, on the average, about 9 out of 10 cases in superior courts result in conviction of the defendant. This does not imply, however, that the defendant will be convicted of the offense originally charged. This point will be discussed in the following section on "level of conviction." The high average rate of conviction, almost 90% throughout the eight years examined, is likely due to initial case screening by the prosecutor. At this stage of processing, as much as 50% of all filed cases may be dropped (Mather, 1973). The cases that remain will be favorable for the prosecutor in that they will likely result in a conviction obtained by a plea of guilty. Serious offenses, and those for which the prosecutor feels "solid evidence" exists for conviction, are the most likely to be retained for processing. This surely contributes to the very high conviction rates found here and noted by others (Blumberg, 1967; Mather, 1973).

Figure 4 shows that the vast majority of convictions are obtained through plea bargaining. For

the time period measured, the median rate of all guilty pleas is between 85 and 90% of all convictions (original and changed to guilty plea combined). On the average, trials account for about 11% of all convictions during the period 1966 to 1973. These findings are not surprising, given recent research on criminal courts (Blumberg 1967; Mather 1973). What is interesting, however, is the change in the dominant means of securing convictions. In 1966, on the average, over 60% of convictions were obtained by original or "fast" pleas of guilty, the least adversarial means of conviction. In the same year, changed, or "slow" pleas of guilty accounted for 27% of convictions on the average for superior courts while trials accounted for only 13%. In 1973, seven years later, this pattern is dramatically different. The dominant means of conviction in 1973 is changed to guilty plea, accounting for 47% of convictions on the average, while original pleas of guilty account for 39%.

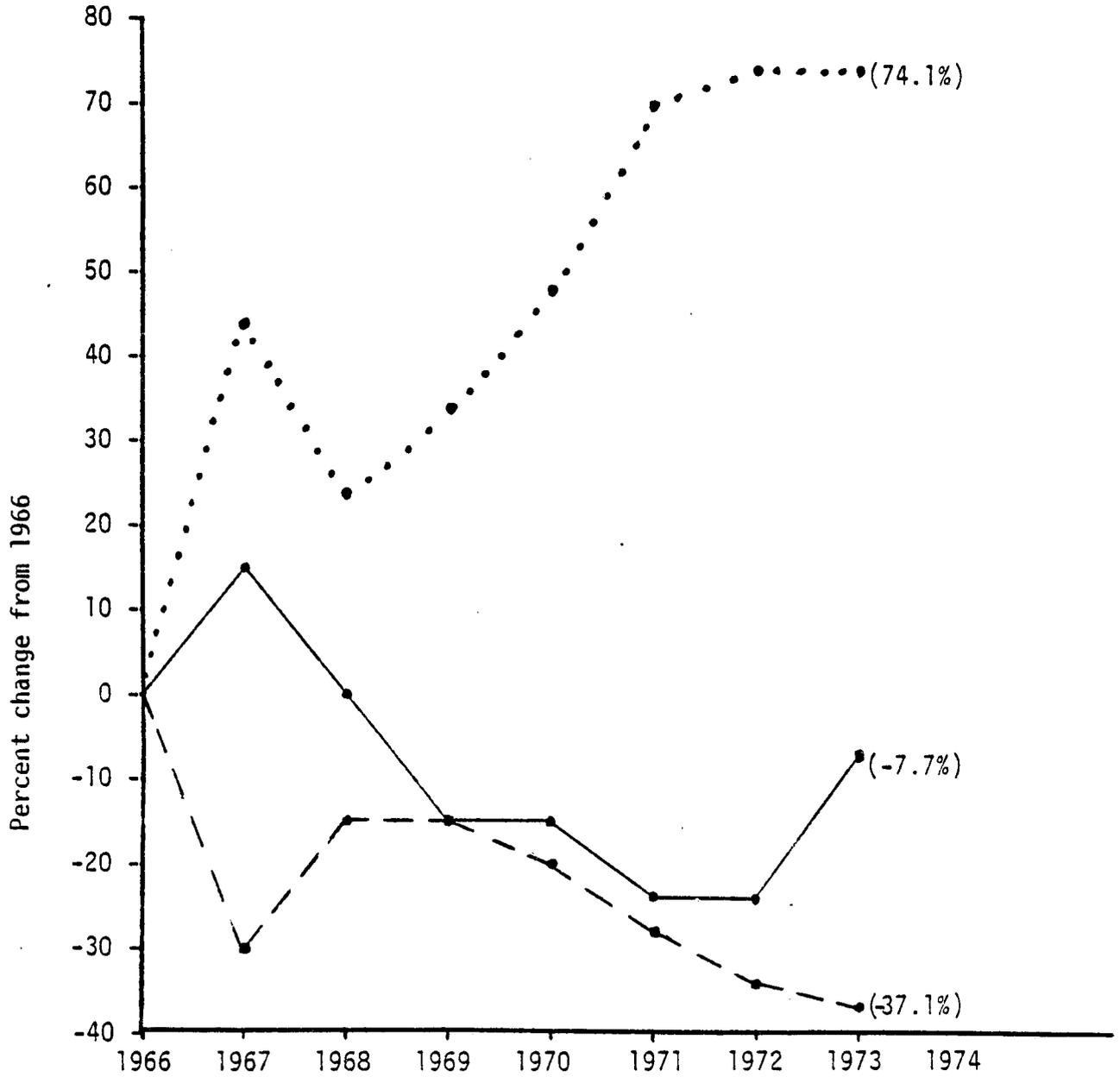
Figure 4 displays a gradual climb in slow guilty pleas, and in 1972 it becomes the dominant mode of conviction in superior courts. Original pleas drop from an average of 62% of all convictions in 1966 to

only 39% in 1973. Conversely, in the same time period, slow pleas rise from an average of 27% to 47% of all convictions. These figures, in addition to the semi-interquartile ranges, first and third quartiles and number of counties, are presented in Appendix 4.

What this translates into, in terms of percent changes in these measures, is displayed in Graph 4. Fast, or original pleas of guilty, which indicate the least adversarial proceedings decline by 37.1% between 1966 and 1973. A quick drop in this average is observed between 1966 and 1967, followed by a slight increase in 1967, a leveling off in 1968 and a gradual decline again through 1973. Slow, or changed to guilty plea show the sharpest increase in 1967, followed by a moderate decline in 1968, and a gradual rise which levels off in 1971-1972. The overall increase in "prolonged bargains" is 74.1%. The average rate of convictions obtained through trials shows an increase between 1966 and 1967, a decline through 1972, and a subsequent rise in 1973. This measure has remained relatively constant, declining only 7.7% over the 7 time periods examined.

What these results appear to indicate is an increased level of adversarial proceedings in superior

GRAPH 4  
Percent Change Medians  
Superior Court Means of Conviction  
California Counties



KEY

- Original guilty pleas
- ..... Changed guilty pleas
- Tried guilty

courts. In 1966, fast pleas of guilty was the dominant mode of conviction in felony courts. By 1973, this situation changed. Slow pleas of guilty, indicating more conflict between the state and the accused, through prolonged bargaining became the major source of conviction in California superior courts. Possible reasons for this change will be discussed in the section dealing with correlates of adversariness.

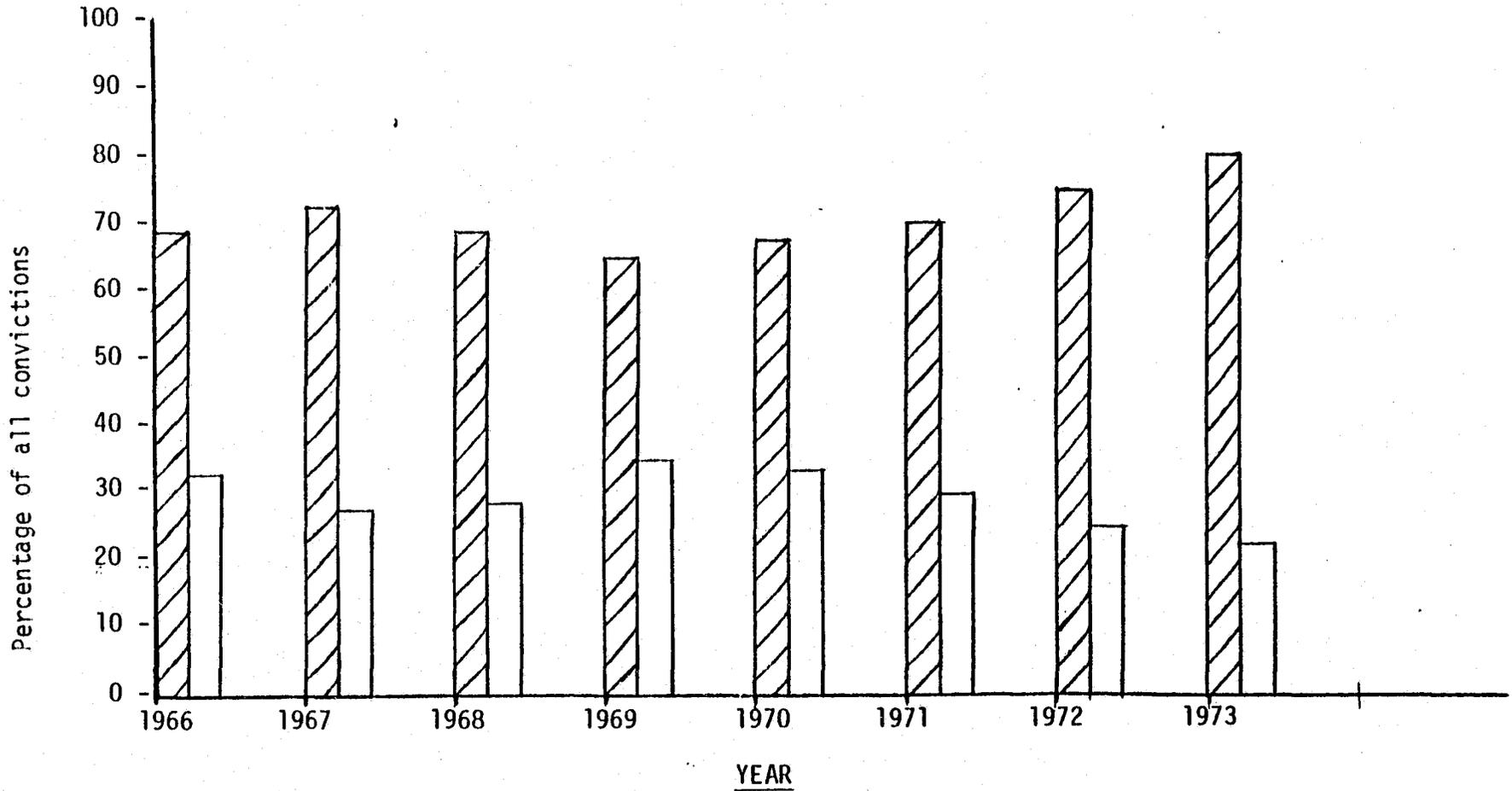
e. level of conviction

Figure 5 shows the proportion of convictions resulting in felony and misdemeanor sentences. The percentage of cases resulting in a felony sentence remains relatively constant for the period 1966 to 1973. There is a slight decline in the rate of felony sentencing between 1967 and 1969 and a gradual rise thereafter. The median level of felony sentencing in superior courts is 68% of all convictions in 1966 compared to 79% in 1973. This amounts to a 16.2% increase over the seven time periods examined. The median level of misdemeanor sentencing is 32% of all convictions in 1966 and 21% in 1973; a decline of 34.4% (see Graph 5).

It is important to note that the level of

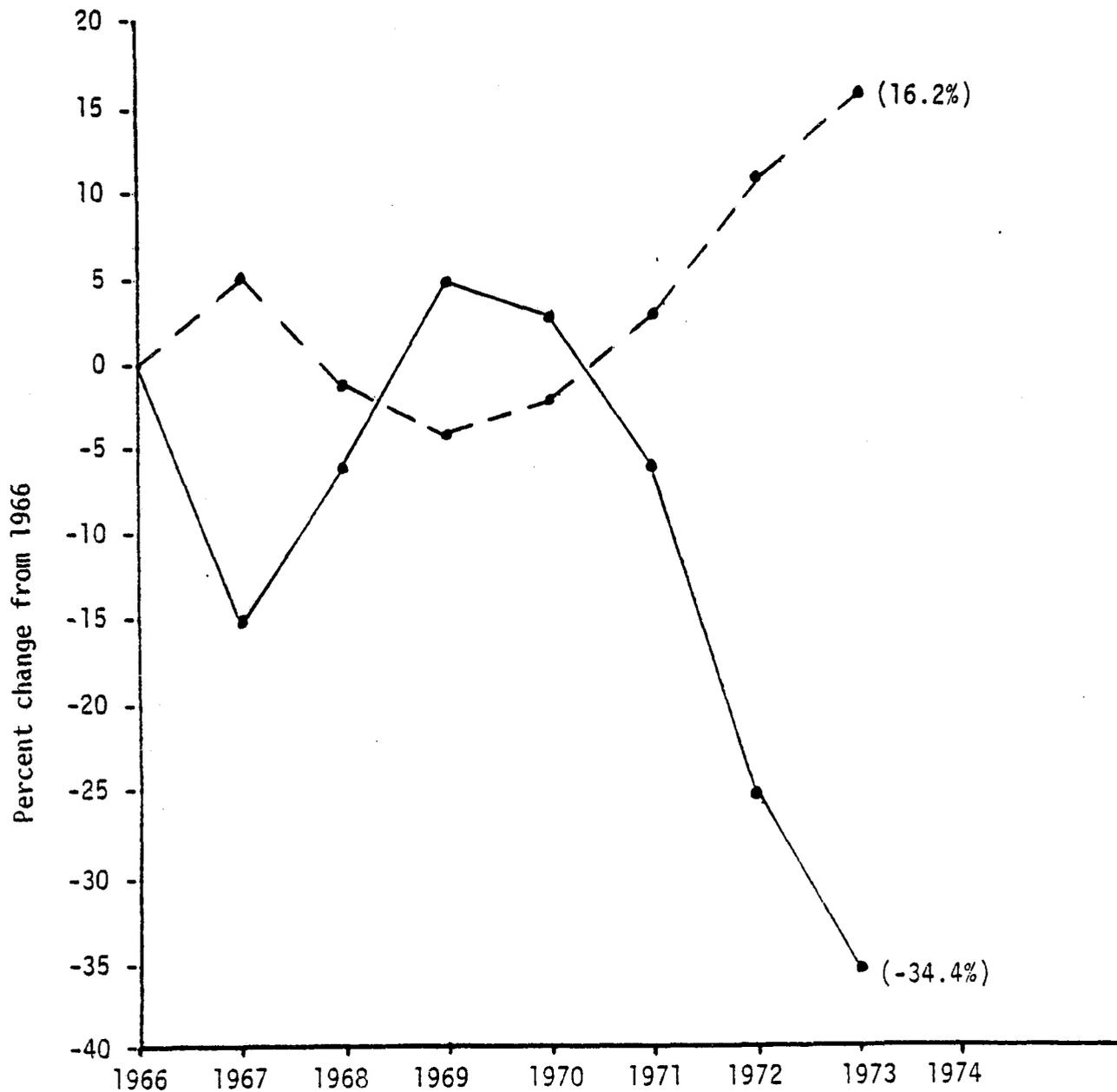


FIGURE 5  
Superior Court Level of Conviction  
California Counties



KEY  
/ Felony sentences  
□ Misdemeanor sentences

GRAPH 5  
Percent Change Medians  
Superior Court Level of Conviction  
California Counties



KEY

- - - - Felony sentence rate
- Misdemeanor sentence rate

conviction is determined by the type of sentence imposed and not the charge (Mather, 1974).

The above figures reflect the median rate of type of sentence imposed and not the actual conviction on charges. After conviction on felony charges, it is possible for judges to use their discretion in sentencing to set the conviction at the level of a misdemeanor (Mather, 1974).

It is interesting to note that a steady decline in misdemeanor sentencing occurs after 1969, the year that section 17 of the Penal Code was instituted in California. This law allows certain lesser felonies to be treated as misdemeanors. This mean't that certain felonies that would have been processed by the superior court would now go to lower criminal courts. These cases, because of their less serious nature, would be more likely to be bargained down to misdemeanor convictions in superior court. Without these cases in superior court, one would expect that felony sentencing rates would necessarily rise subsequent to 1969, which is exactly what is found in Figure 5.<sup>6</sup>

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6. Appendix 5 contains the medians, semi-interquartile ranges, first and third quartiles and number of counties on which the figures are based for felony and misdemeanor sentencing rates.

Clearly the majority of defendants entering the superior court are likely to be convicted through bargaining and to be sentenced at the felony level. This appears to indicate rather certain punishment for offenders. The actual sanctions imposed, however, are not evident from these findings.

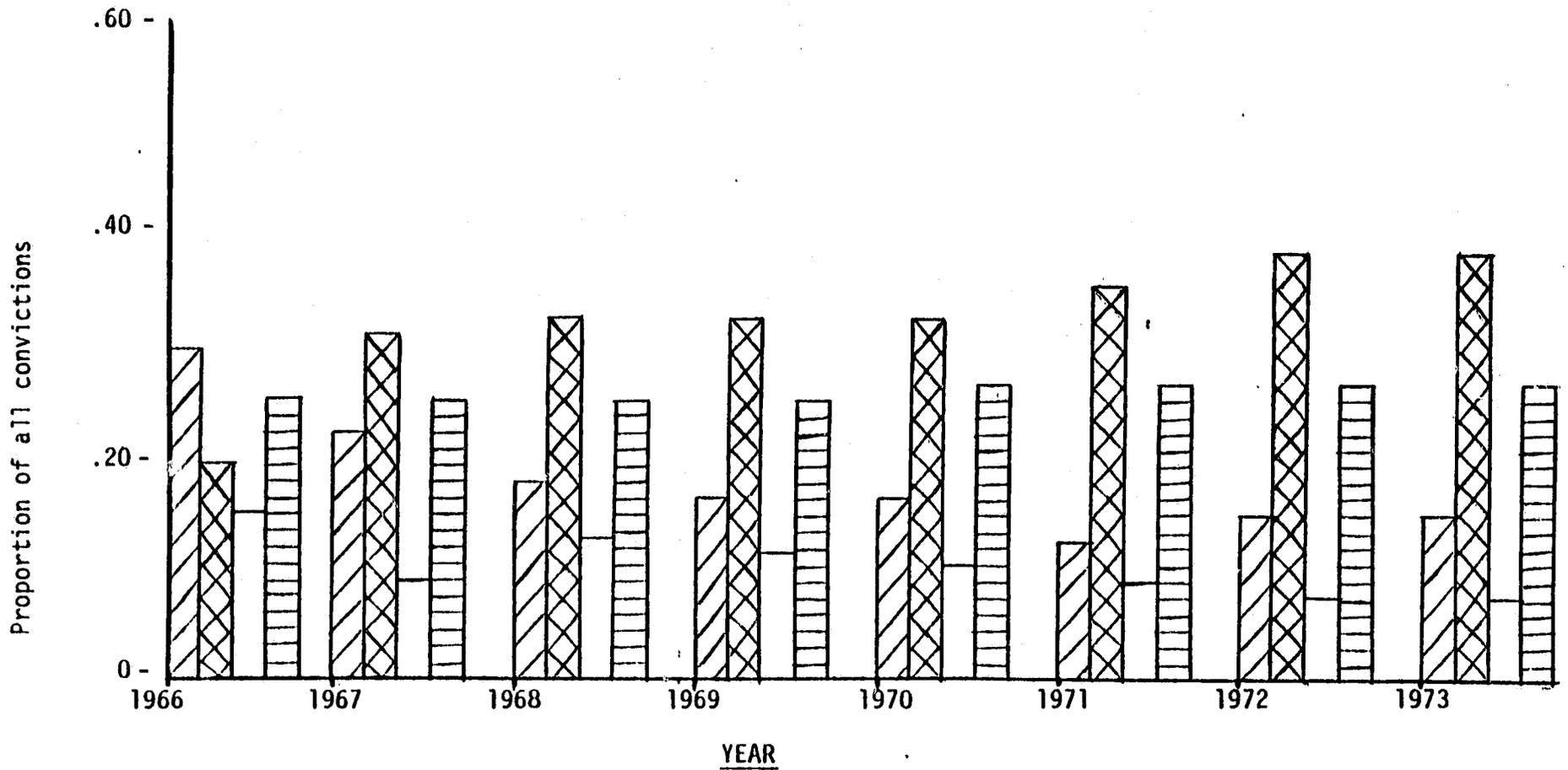
It should also be noted that not all criminals are apprehended. In addition, Mather (1973) notes that in Los Angeles in 1970, only about one-half of all arrestees were processed through criminal courts. This attrition of violators at initial processing stages reduces rates of sanctioning. Thus, while conviction and felony sentencing may be high, the proportion of violators exposed to these sanctions is low. Furthermore, judges in California have great discretion in making sanctioning decisions. A conviction at the felony level does not necessarily mean that the judge will incarcerate the defendant. The rates of sentences imposed in superior courts are discussed in the following section.

f. sentencing

The median rates of superior court sentencing outcomes for the period 1966 to 1973 are presented in Figure 6. The four categories of sentences considered



FIGURE 6  
 Superior Court Sentencing (Medians)  
 California Counties



KEY

 Prison	 Jail
 Probation with jail	 Straight probation

here are: prison, probation with jail, jail only, and straight probation. Other commitments, such as fine, California Youth Authority, etc., are not shown. The median rate for the total of these other commitments is less than 15% of all convictions for any given year included in this study.

It is also important to note that the sentencing data say nothing about actual punishments carried out by the state. This information reveals nothing about suspended sentences or times served in prisons and jails or on probation. In California, actual length of prison terms are set by the Adult Authority within bounds set by statutory law. Thus, the measures presented here represent only the potential types of sentences that may be served by those convicted.

Median rates of prison sentences in superior court, measured as the proportion of prison sentences relative to all convictions, declines over the years studied (see Figure 6). In 1966 it is the most frequent sentence (29%), followed by straight probation (23%), probation with jail (20%), and jail only (15%). In 1973, this ranking changes markedly. On the average, probation with jail is the most frequent sentence meted

out by superior courts (37%), followed by straight probation (26%), prison (15%), and jail only (8%). These measures show that while average rates of straight probation sentencing have remained relatively constant over the time period examined, rates of prison sentences have declined, as have jail only sentences. Probation with jail sentencing shows a marked increase in 1967, followed by only a slight rise thereafter. Rates of prison sentencing, the most severe sanction measured here, ranks third in frequency behind probation with jail sentencing and straight probation, for all years studied except 1966. By 1973, an average of only 15% of defendants convicted in California superior courts were sentenced to prison. In terms of actually serving time in prison, this percentage is surely reduced by cases for which the sentence is suspended. Thus, only a small fraction of defendants convicted will ever serve a prison term. If one considers those who are not prosecuted or arrested, the certainty of prison becomes even smaller. Those convicted are most likely to serve time on probation, sometimes with jail. The medians, semi-interquartile ranges, first and third quartiles, and number of counties on which these statistics on sentencing rates are based, are included

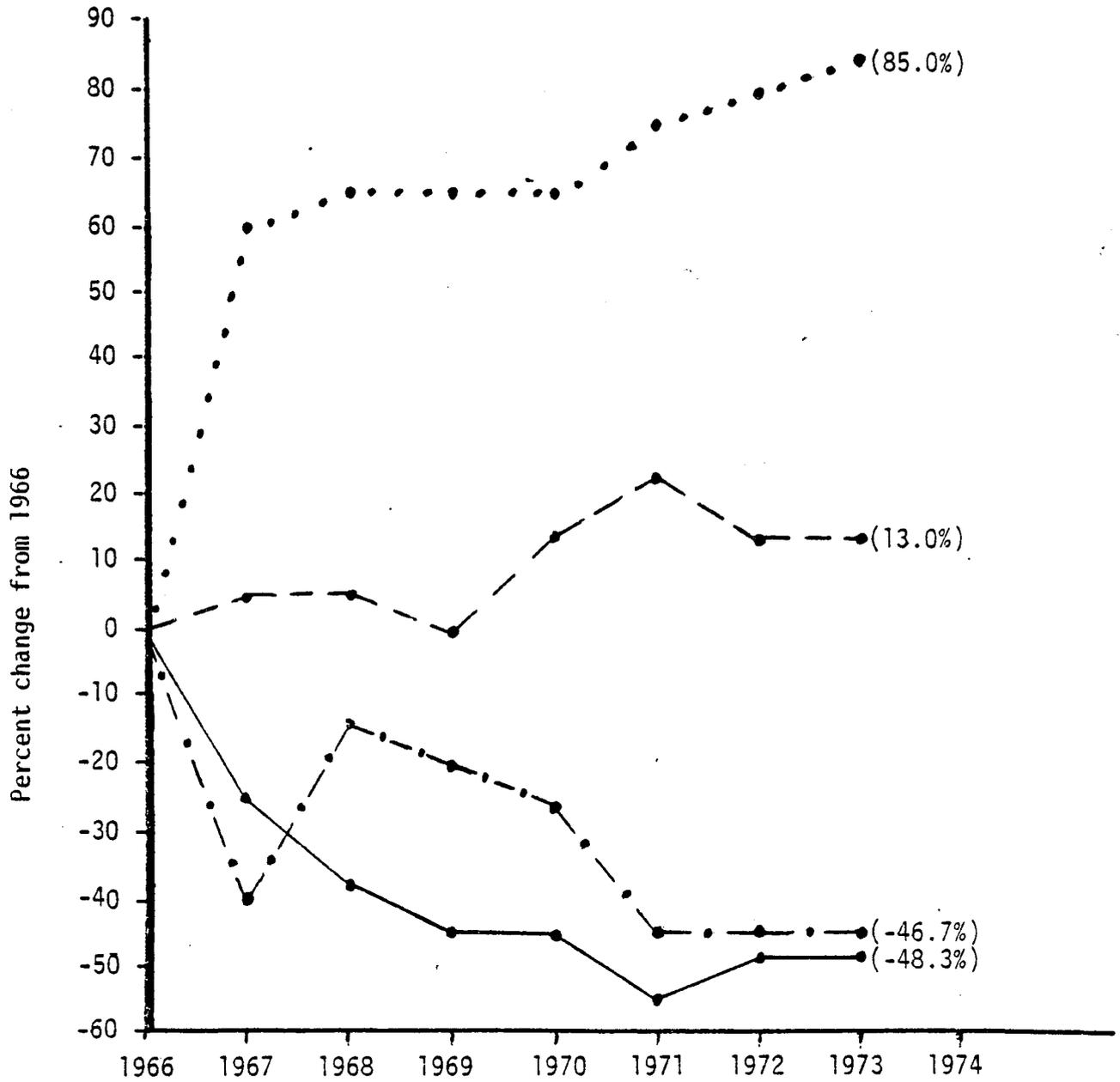
in Appendix 6.

Graph 6 presents the relative rates of change for each sentencing category. Of all sentencing rates examined, probation with jail shows the highest percent increase between 1966 and 1973 (85%). Straight probation sentencing remains relatively constant, increasing only (13%) over 7 years. Median rates of both prison and jail sentencing show similarly large decreases over this same time period (-48.3% and -46.7% respectively). The largest changes in these measures occurs between 1966 and 1967 (see Graph 6).

The indisputable major finding from these data is that the probability of receiving a severe sanction once convicted is extremely small. On the average, most defendants are sentenced to straight probation or probation with jail in superior courts. Under these circumstances of limited severe sanctioning, the deterrent efficacy of punishment is greatly reduced.

It is also interesting to note that changes in punishment rates correspond quite closely to changes in means of conviction (Graph 4). The increase in probation with jail sentencing (85%) corresponds to the increase in the proportion of convictions obtained

GRAPH 6  
 Percent Change Medians  
 Superior Court Sentencing  
 California Counties



KEY

- Certainty of prison sentence
- - - - Certainty of straight probation sentence
- ..... Certainty of probation with jail sentence
- . - . Certainty of jail only sentence

through slow guilty pleas (74%). Similarly, decreases in prison and jail sentencing (-48% and -47% respectively) follow the decline in fast guilty pleas (-37%). This finding may point to the negative effect of slow pleas on severity of sanction. Fast pleas may entail less dropping of charges, and hence a higher maximum penalty for the defendant. As this means of conviction decreases, less punishment may also result at the court level.

g. potential and actual court caseload pressure

Potential workloads for superior courts may exist given the environment in which the court is situated. Resource imbalance between police and prosecutorial components, for example, could affect actual caseloads in courts. The more police resources, compared to prosecutorial resources, the greater this imbalance. Where this occurs, heavier court caseloads are likely to result necessitating less sanctioning in criminal courts.

Another measure of potential pressure is felony arrest rate. Influenced by the size of the police force, police efficiency, citizen complaints and actual levels of criminal activities, felony arrests represent potential cases in superior courts. Where arrest levels

are relatively high, courts may be under increased pressure to dispose of large numbers of cases.

The final measure of potential court caseload is dispositions per capita. How many cases a court disposes of relative to the size of its jurisdiction reveals the relative activity of superior courts. Courts which process more cases relative to the size of their environments may also have greater caseloads. This measure more closely represents the volume of court activity relative to population size than actual caseload pressure. It allows for comparisons to be made among courts along a single continuum of relative processing activity. Using this standardized measure, which is different than volume measured simply by number of cases (see Heuman, 1975), relationships among relative court activity, the environment, and actual court caseload can be examined.

Police-prosecutor expenditure imbalance remains relatively constant between 1968 and 1974, showing only a 6% decline (see Appendix 7). The ratio of police to prosecutor spending ranges from 9.67 in 1968 to 8.94 in 1970. For the remaining years it is always at least 9 to 1. In contrast to this measure of

potential pressure in court processing total felony arrest rate shows a marked increase between 1966 and 1974 - about 157%. Dispositions per capita shows a moderate increase of 45% between 1966 and 1973, from 1.63 to 2.36.

Of the three measures of potential caseload pressure, felony arrest rate and dispositions per capita show the only significant increases for the time period examined. Imbalance between police and prosecutor expenditures shows only a slight decline. Actual caseload pressure, however, measured as the number of dispositions in superior court per prosecutorial personnel, shows a decline of 21% between 1969 and 1973. Thus, while average arrest and disposition rates have increased in California, caseloads have declined. This seemingly paradoxical finding is likely explained by the measure of caseload employed here and the effects of Section 17 of the Penal Code, which directed lesser felonies to lower courts instead of superior courts.

Caseload, as it is measured here, is operationalized as the ratio of superior court dispositions to all prosecuting personnel within a particular jurisdiction. Data on superior court prosecuting resources

only was not available for this study. The assumption is made that the proportion of superior court prosecuting resources to lower court prosecuting resources is relatively constant across all jurisdictions. This may or may not be the case, but finer data on prosecutorial resource levels is needed to test this assumption. To the extent that it is true, relative caseloads in superior courts are well represented. But in absolute terms, the figures obtained do not reflect the actual number of cases per prosecutorial resource.

Regarding Section 17, which became effective in 1969, the implication for changing caseloads is clearer. All other things being equal, the effect of this change in the law should be a reduced caseload at the superior court level, since lesser felonies are processed in lower courts. The decline in caseload between 1968 and 1973 may indeed reflect the effect of this change in law.

In conclusion, it must be emphasized that a general increase in potential pressure over time, accompanied by a reduction in average actual caseload does not necessarily mean that the two phenomena are inversely related or unrelated altogether. In fact,

all 3 measures of potential caseload show moderate to high positive correlations with actual caseload in 1970. Thus, jurisdictions with relatively high levels of felony arrests, police-prosecutor imbalance, and dispositions are likely to have greater caseloads in their felony courts. This is discussed more fully in the section dealing with correlates of court caseload.

#### Summary

This section has dealt only with average changes in variables of interest in this study. Certain overall trends have been identified. The data show an overall increase in the reported felony crime rate of 105% between 1966 and 1974. In addition, average rates of criminal justice resources, measured in terms of spending and personnel at the police, prosecutor, and superior court levels, show increases between 1968 and 1974. In general, personnel rates increased less than rates of spending for criminal justice agencies. Also noted is a change in the dominant means of conviction in felony courts between 1966 and 1973. While original or fast guilty pleas, on the average, were the major means of conviction in 1966 (62%), in 1974 this drops to an average of only 39%. This may be indicative

of slower processing of cases, and hence more adversariness in the disposition of cases. While convictions at the felony level show an increase over the time period examined, actual sentencing rates show less sanctioning in superior courts in terms of the certainty of convicted defendants being sentenced to relatively harsh punishments. The use of both jail and prison sentencing show a decrease (47% and 48% respectively), while probation with jail sentencing shows an increase (60%). Overall, there is an increase in potential caseload pressure measured by felony arrest rates and court dispositions per capita. In contrast, actual caseload pressure shows a slight decline (21%), which is probably due to Section 17 of the Penal Code.

The question of how these measures of crime, resources, defendant processing caseload and punishment are interrelated is taken up in the following section. In addition, the relations among these variables and demographic characteristics of California counties are described.

## Zero-Order Correlations

### a. rates of crime

The zero-order correlations between demographic characteristics of California Counties and rates of felony crimes are shown in Table 1. A weak, yet statistically significant positive correlation is found between both reported personal and property crimes and the degree to which the county is urban in character. The percentage of blacks living in the county shows the highest positive correlation with crime rate, followed by the percentage of males aged 25 to 29. The percentage black in the population is used as a rough indicator of the degree of inequality in the population (Frisbie and Neidert, 1977).<sup>7</sup> It should also be noted that the percentage of young males in the population (19 years and under) is negatively associated with the felony crime rate.

7. They conclude: "In terms of the objectives of the research, the most important conclusion is that the relative size of minority population emerges as a robust predictor of inequality." Inequality and the Relative Size of Minority Populations: a Comparative Analysis, American Journal of Sociology, Vol. 82 #5, pp. 1029.

TABLE 1

Felony Crime Rates by Demographic Characteristics  
and Criminal Justice Resources Per Capita (1970)  
(Zero-Order Correlations)

<u>Demographic Characteristics</u>	<u>Felony Crime Rates</u>		
	<u>Total</u>	<u>Personal</u>	<u>Property</u>
(N=32)			
Percent Urban	.38*	.37*	.38*
Unemployment	-.06	-.05	-.06
Overcrowded Housing	-.16	-.08	-.16
Poverty	-.18	-.09	-.18
Inequality (% Black)	.71***	.72***	.70***
Percent Males 25-29 yrs.	.43**	.39*	.43**
Percent Males under 19 yrs.	-.54**	-.46**	-.54**
<u>Criminal Justice Resources</u>			
(N=20)			
Police Expenditures	.90***	.92***	.89***
Police Personnel	.89***	.91***	.88***
Prosecutor Expenditures	.03	.0	.03
Prosecutor Personnel	-.26	-.18	-.27
Superior Court Expenditures	.54**	.58**	.53**
Superior Court Personnel	.69***	.61**	.69***

\*  $p < .05$   
 \*\*  $p < .01$   
 \*\*\*  $p < .001$

Even stronger than the observed relationships between demographic characteristics and felony crime rates are the associations between police resources and crime (see Table 1). The zero-order correlations between police expenditures and manpower per capita and felony crime rates varies between .88 (police personnel per capita and felony property crime rate) and .92 (police expenditures per capita and felony personal crime rate). While these associations are quite high, both the direction and sign of these relations is still under debate.<sup>8</sup> It is important to note, however, that while felony crime rates show a high relationship to police resources, and a moderate association with superior court resources, there is no significant association with prosecutorial resources. In fact the sign of the correlation with prosecutorial personnel per capita is negative. Thus, while police and judicial resources may be responsive to, and influential towards rates of crime, the data show no interaction between rates of recorded crimes on prosecutorial resources. This finding may have serious implications for the generation of punishment, since

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8. Levine, 1975; Greenwood and Wadyki, 1973; McPheters and Stronge, 1973).

the highly discretionary role of the prosecutor in bringing or dropping charges against the defendant, examining the facts of the case, bargaining for reduced charges, and influencing the method of case disposition (dismissal, original guilty plea, changed guilty plea, or trial) will likely be affected by the caseload brought before him. High caseloads due to disproportionate police resources and high recorded crime rates may diminish the prosecutor's capacity to mete out swift, certain, and severe punishments-conditions thought to be necessary for a deterrent influence of criminal punishment. The absence of an association between crime rate and prosecutorial resources may therefore indicate a condition which is favorable to court overload and a diminished capacity to generate and administer legal sanctions.

b. criminal justice resources

Relationships between criminal justice resources and selected demographic characteristics of California counties are shown in Table 2. The greatest positive correlation is found between inequality (measured by percentage of black people) and police resources, both in terms of personnel and expenditures. More urban counties, and those with large percentages

TABLE 2

Demographic Characteristics of California Counties  
 By Criminal Justice Resources Per Capita (1970)  
 (Zero-Order Correlations)

N=32

<u>Demographic Characteristics</u>	<u>Police</u>		<u>Prosecutor</u>		<u>Superior Court</u>	
	<u>Spending</u>	<u>Personnel</u>	<u>Spending</u>	<u>Personnel</u>	<u>Spending</u>	<u>Personnel</u>
Percent Urban	.55***	.33*	-.01	-.17	.17	-.02
Unemployment	-.27	-.12	.08	.05	-.15	.20
Overcrowded Housing	-.15	.07	-.05	-.09	-.15	-.23
Poverty	-.38*	-.20	-.06	.08	-.25	-.08
Inequality (% Black)	.66***	.60***	-.11	-.33*	.27	.12
Percent Males 25-29 years	.44**	.34**	-.17	-.15	.21	.07
Percent Males under 19 years	-.47**	-.34*	.03	.18	-.29*	-.51**

\*  $p < .05$   
 \*\*  $p < .01$   
 \*\*\*  $p < .001$

of males between 25 and 29 years of age also appear to have greater police resources. In addition, counties with higher concentrations of males below 19 years of age spend less for police, as well as for felony courts. Inequality also shows a weak negative association (-.33) with prosecutorial personnel per capita.

Besides these associations, particularly with police resources, the selected demographic characteristics show little influence on prosecutorial and judicial capacity. Police agencies are most visible to the public of all criminal justice components, and are more likely to receive additional funding when a rise in crime is perceived. The increased capacity of the police to record and detect criminal activities may itself help produce increases in recorded crimes (Greenwood and Wadyki, 1973; Levine, 1975). While demographic characteristics, notably inequality and urbanization, are moderately related to both crime and police resources, they show no association with expenditures for prosecution or the judiciary - those components of the criminal justice system which must sort out, and apply sanctions to violators arrested by the police.

There are three possible reasons for this finding, one of which has already been mentioned,

the relatively low public visibility of both the prosecutor's office and the superior court. Another possible explanation is that the police, unlike prosecutors or the judiciary, are funded primarily at the municipal level. Police resource levels will, therefore, be more responsive to a changing social environment, while other agency budgets are relatively fixed through county and state legislation.

A third possible reason for this apparent lack of court funding relative to police spending may have to do with public and legislative folkwisdom concerning "crime control." Putting more cops on the beat may appear most effective in the short run for the control of certain criminal activities. Increased police presence may indeed deter some potential criminals and produce more arrests. Without commensurate increases in capacity for those legal institutions which back-up police authority, however, namely courts and prisons, less frequent, certain and severe punishments are likely to result for those apprehended. This may indeed undermine both the deterrent purpose of police presence and the general respect for legal authority and norms, without which legal punishments cannot be effective as deterrents to crime. This idea

of "structured resource imbalances" in the criminal justice system, and its relationship to both caseload pressure in the courts and criminal sentencing, is discussed in the following sections.

c. resource imbalance and court caseload pressure

Resource imbalances in the criminal justice system, especially between police agencies and prosecutor's offices may have ramifications for the generation and administration of criminal sanctions and hence affect the general deterrent efficacy of legal punishments. Potential court caseload pressure can be conceptualized in terms of the imbalance in resources between police and prosecutorial components (the ratio of police resources to prosecutorial resources), superior court dispositions per capita, and total felony arrest rate. It is assumed that these variables may impact on court processing and the ability of the court to sanction violators. High arrest rates, large resource imbalances and a high level of dispositions per capita may provide favorable conditions for court overload. Actual court workload pressure is operationalized as the number of superior court dispositions per prosecutorial resource, in terms of personnel.

The correlations for these measures of potential and actual court workload pressure, demographic characteristics, criminal justice resources and rates of felony crimes are presented in Table 3.

d. criminal justice resources and potential court overload

Total felony arrest rates represent potential workloads for superior courts. As could be expected, strong relationships are observed between levels of police spending and personnel and total felony arrest rate (.86 and .87 respectively). Thus, counties with high police resource levels are also likely to have high rates of arrests. The correlations between superior court resources and felony arrest rates are moderate (.54 for both court spending and personnel per capita). While judicial resources are positively related to potential workload pressure (arrest rate) no significant association is observed for prosecutorial resources. In fact, the signs of the correlations are negative.

Another measure of potential court workload pressure, dispositions per capita, shows moderate positive associations with police resources (.49 for spending and .56 for personnel), a weak positive

TABLE 3

Potential and Actual Court Caseload Pressure By  
Rates of Felony Crime, Criminal Justice Resources  
Per Capita, and Demographic Characteristics (1970)  
(Zero-Order Correlations)

<u>Criminal Justice Resources</u> (N=35)	<u>Potential Court Caseload Pressure</u>			<u>Actual Court Caseload Pressure</u>
	<u>Total Felony Arrest Rate</u>	<u>Court Dispositions Per Capita</u>	<u>Police-Prosecutor Resource Imbalance</u>	<u>Dispositions per Prosecutor Personnel</u>
Police Spending	.36***	.49***	.69***	.61***
Police Personnel	.37***	.56***	.65***	.48**
Prosecutor Spending	-.12	-.03	-.55***	-.56***
Prosecutor Personnel	-.20	-.30*	-.58***	-.53***
Court Spending	.54***	.32*	.25	.35*
Court Personnel	.54***	.09	.40**	-.07
<u>Demographic Characteristics</u> (N=36)				
Percent Urban	.43***	.01	.41**	.15
Unemployment	-.12	.16	-.17	.15
Overcrowded Housing	-.12	.32*	-.07	.22
Poverty	-.19	.17	-.16	-.01
Inequality (% Black)	.66***	.46***	.70***	.54***
Percent Males 25-29 yrs.	.52***	.15	.58***	.20
Percent Males under 19 yrs.	-.35**	.09	-.34**	-.01
<u>Felony Crime Rates</u> (N=22)				
Total	.30***	.42*	.71***	.50**
Personal	.86***	.60***	.70***	.60***
Property	.79***	.40*	.71***	.49**

\*p < .05  
\*\*p < .01  
\*\*\*p < .001

correlation (.32) with superior court spending only, and a weak negative association with prosecutorial personnel (-.30). Thus, counties with high numbers of superior court dispositions per capita are likely to have relatively high police resources, but not prosecutorial and judicial resources.

A third measure of potential caseload pressure is the ratio of police to prosecutorial spending. Counties in which this ratio is high may have more actual caseload pressure due to higher inputs of violators into the court system relative to prosecutorial capacity with which to dispose of them. As shown in Table 3, increased police expenditures and personnel are likely to produce increased discrepancy between police and prosecutorial resources. The correlation between imbalance and police spending is .69; for police personnel it is .65. In addition, counties with relatively low expenditures for prosecutors are likely to have greater imbalance between police and prosecutor resources (-.55 for prosecutorial spending and -.58 for prosecutorial personnel). A low to moderate positive correlation exists between police-prosecutor imbalance and superior court personnel only (.40).

e. criminal justice resources and caseload pressure

Workload pressure in the superior court is measured as the number of dispositions in 1970 per prosecutorial personnel. Police resources in terms of both expenditures and personnel per capita are positively related to court pressure (.61 and .48 respectively). Jurisdictions with low levels of prosecutorial resources per capita are more likely to have greater caseloads than those with more prosecuting resources (-.56 and -.53). Judicial spending shows a weak positive association (.35) with court workload. These results come close to replicating those found for police-prosecutor imbalance and workload pressure. The greater the proportion of criminal justice resources controlled by police agencies, the greater both the potential caseload (in terms of felony arrests, police-prosecutorial imbalance and dispositions) and the actual workload pressure in felony courts.

f. demographic characteristics, criminal justice imbalance and caseload pressure

Of all demographic characteristics measured, inequality, operationalized as the percent black within superior court jurisdictions shows the highest and most consistent positive correlations with both

potential, and actual court caseload pressure. With felony arrest rate the correlation is .66, followed by other population characteristics of percentage of males ages 25 to 29 (.52), and urbanization (.43). A negative relation is found between arrest rate and percentage of males below 19 years of age (-.35, see Table 3). Inequality also shows the highest correlation with police-prosecutor imbalance (.70), followed by males ages 25 to 29 (.58) and urbanization (.41). Only two demographic characteristics, inequality and overcrowded housing, are positively associated with superior court dispositions per capita (.46 and .32 respectively). The only positive, significant correlation with actual court caseload pressure is found for inequality (.54).

Thus, for all demographic characteristics of counties measured, inequality, operationalized by percent black in the population, is the most consistently related to both potential and actual court workload pressure.

g. crime rates, criminal justice imbalance and caseload pressure

Felony crime rates, for both personal and property crimes show moderate to high correlations

with potential and actual caseload pressure. The highest associations are found for felony arrest rate (.80 total crimes, .86 personal crimes, and .79 property crimes). Thus, counties with high crime rates also have high arrest rates which produces a situation of potential overload for criminal courts. Crime rates are also highly associated with police-prosecutorial resource imbalance. It was shown earlier that while crime rates were highly associated with police resources, and moderately related to judicial expenditures and personnel, they were not related to prosecutorial resources. The association between crime rates and police-prosecutorial imbalance varies between .70 (personal felony crime rate) and .71 (total and property felony crime rate).

Rates of crime are moderately associated with another measure of potential caseloads, felony court dispositions per capita. The highest association is found for personal felony crime rate (.60), followed by total crime rate (.42) and property crimes (.40). Thus, crime rate is related to potential court workload pressure as measured by felony dispositions per capita.

Finally, felony crime rates show moderate positive correlations with actual court caseload pressure. The highest association is found for personal felony crimes (.60).

These results indicate that jurisdictions with high rates of reported felony crimes are more likely to have greater caseload pressure in their felony courts. This appears to be true despite high rates of case dismissals in crime-prone areas - as high as 50 percent of all cases filed - reported in previous research (see Mather, 1973). Thus, even with such "safety-valve institutions" as police and prosecutor dismissing privileges, areas with high reported crime rates are likely to have greater caseloads in their felony courts.

h. court processing: conviction and plea bargaining

It is already documented that a large proportion of cases in the nation's criminal courts are disposed through pleas of guilty (President's Commission, 1967). Plea bargaining enables courts to move large caseloads at the expense of lowered rates of sanctioning. That is, pleading guilty to a lesser charge will bring less punishment to bear on a defendant than if he were found guilty on the original charge.

Some have argued that as court caseloads increase, there is a decline in adversariness in processing cases, as prosecutors encourage bargaining in order to keep cases moving (Blumberg, 1967). Increased cooperation is required between defense attorneys and prosecutors in order for this to occur. The "demise of the adversary system" is a label which can be applied to criminal processing by those who favor this view. Plea bargaining, it is argued, indicates a less adversarial procedure, threatening a major tenet of "due process" in the justice system.

Conversely, others argue that adversariness in criminal cases has not necessarily declined (Skolnick, 1967; Feeley, 1973). Plea bargaining is not a recent phenomenon in criminal courts. It has been the major method of case disposition for decades (see Pound and Frankfurter, 1922) and has not been drastically augmented in the past ten years as a response to an ever-increasing crime rate.

Thus, the relationship between caseload and adversariness in the criminal court is still a topic of debate among legal scholars. The ecological correlates of case disposition are presented in Table 4.

i. superior court conviction rates and means of conviction

It has already been shown that the conviction rate (the ratio of convictions to dispositions) is, on the average, close to 90 percent. Only three factors show weak significant correlations with this variable: urbanization (.32), superior court personnel per capita (-.32), and dispositions per capita (-.34). This may be the product of an initial screening by the court which leaves only those cases likely to be disposed by conviction within the system. Thus, conviction rates are likely to be high regardless of caseload pressures, criminal justice resources, rates of reported crimes, and inequality. It should be noted, however, that a finer breakdown of court conviction rates, i.e. by specific offense charged may produce different results than found here. The composition of cases or the "case-mix" undoubtedly influences the overall rate of conviction.

Almost all criminal court convictions are obtained through plea bargaining. The means of conviction - original guilty plea, changed plea of guilty, and tried guilty - as well as total guilty pleas are shown in Table 4. Original or "fast" guilty pleas can

be taken as representing less adversarial proceedings in the court than other means of conviction.

Since almost all cases are disposed through bargaining in criminal courts, it is unreasonable to assume that only trials show adversariness. A more meaningful measure appears to be how the case was bargained; with speed (original guilty plea) or more slowly (changed to guilty plea). Of course, trials represent the most adversarial proceeding, so they too can be taken as a measure of conflict between the state and the defense.

It could also be argued that fast pleas will result in higher sanctioning rates since less ground is given by the state in way of reducing original charges. Defendants who plead guilty immediately are likely to be convicted of the offense originally charged which will carry a higher maximum penalty than will a reduced charge. Where trial rates are high, one can also expect higher rates of punishment. Most trials end in convictions on more serious charges than those offered through bargaining. Defendants with prior records and those charged with serious offenses will be more likely to go to trial, as the "bargains" in their cases usually carry a prison term. Rather

than giving up and pleading guilty, these defendants will be more likely to take their chances at trial (Mather, 1973). If convicted at trial, however, which is usually the case, these defendants will be penalized more severely than if they had pleaded guilty.

Prosecutors do not desire to go to trial for ordinary criminal cases as this leads to a greater expenditure of scarce resources (time and personnel) and adds an element of uncertainty which reduces their control over the conviction process; not all trials result in a verdict of guilty. In addition, the image of the prosecutor as "protector of the public" is measured by his track record concerning convictions. Trials waste time, and will appear to make the public servant less efficient in convicting offenders - an important occupational consideration as the prosecutor is an elected official.

As seen in Table 4, the total rate of guilty pleas in superior courts show no significant correlations with rates of felony crimes, demographic characteristics of jurisdictions or criminal justice resources. A weak negative association (-.34) is observed for dispositions per capita, a measure of potential court overload. The more court dispositions

TABLE 4

Means of Conviction and Conviction Rate in Superior Court By Demographic Characteristics, Criminal Justice Resources, Rates of Felony Crimes, and Measures of Potential and Actual Caseload Pressure (1970)  
(Zero-Order Correlations)

<u>Demographic Characteristics</u>	<u>Conviction Rate</u>	<u>Original Guilty Plea</u>	<u>Changed to Guilty Plea</u>	<u>Tried Guilty</u>	<u>Total Guilty Pleas</u>
(N=33)					
Percent Urban	.32*	-.52***	.52***	.07	.07
Unemployment	-.17	.49**	-.43**	-.12	.07
Overcrowded Housing	-.09	.29*	-.29*	-.05	.0
Poverty	-.24	.43**	-.53***	.09	-.17
Inequality (% Black)	-.01	-.34*	.16	.36*	-.26
Percent Males					
25-29 yrs.	.10	-.28	.25	.07	-.03
Percent Males under 19 yrs.	-.23	.23	-.16	-.18	.0
<u>Criminal Justice Resources</u>					
(N=35)					
Police Spending	.14	-.23	.19	.11	.01
Police Personnel	-.11	-.10	.06	.08	-.12
Prosecutor Spending	-.01	.09	-.03	-.19	.08
Prosecutor Personnel	-.06	.36*	-.42**	.0	-.07
Court Spending	-.24	-.18	.15	.10	-.21
Court Personnel	-.32*	.25	-.28*	-.02	-.13
<u>Felony Crime Rates</u>					
(N=25)					
Total	.08	-.06	.04	.02	.02
Personal	-.15	-.21	.0	.35*	-.31
Property	.10	-.04	.05	.0	.05
<u>Potential and Actual Caseload Pressure</u>					
(N=36)					
Felony Arrest Rate	-.05	-.08	-.04	.22	-.16
Dispositions per cap.	-.34*	-.04	-.07	.27	-.34*
Police-Prosecutor Resource Imbalance	.14	-.17	.12	.16	.0
Court Dispositions per Prosecutor Personnel	-.11	-.26	.23	.20	-.13

\*  $p < .05$ \*\*  $p < .01$ \*\*\*  $p < .001$

relative to the population at large, the less likely it is for the court to have a high rate of guilty pleas.

While this association is weak, it is interesting to note that this finding is in contrast to certain results of other studies which view high rates of plea bargaining as dependent on high caseloads (Blumberg, 1967). Again, the data may not be fine enough (i.e. offense specific) to reveal ecological associations with the rate of plea bargaining, but the results do not support the hypothesis that caseloads reduce adversariness.

Rates of tried guilty cases in the superior court show only two weak correlations in Table 4. These are with inequality (.36) and rate of personal felony crimes (.35). While trial rates do not vary with most factors measured, it is interesting to note the low, yet consistently positive signs of these correlations with measures of potential, and actual caseload pressure. This contrasts with the consistently negative signs for original or fast guilty pleas with these same factors. While not highly supportive, these patterns suggest that where potential and actual caseloads are higher there may be more adversarial

court proceedings than where such pressures are low. This appears to question further the notion that courts under pressure are less adversarial in processing defendants.

Original and changed to guilty plea disposition rates are highly inversely correlated. Where one is relatively high, the other will be relatively low. The correlations obtained in Table 4 reflect this pattern; where original pleas of guilty show a significant relation to ecological factors, changed to guilty pleas will show a correlation of similar magnitude but of the opposite sign.

More urban jurisdictions show lower rates of fast guilty pleas, and correspondingly higher rates of slow or changed to guilty pleas. Inequality shows a weak negative association with fast guilty pleas and a weak positive association with the rate of defendants tried and found guilty. Unemployment, overcrowded housing and poverty show weak to moderate positive correlations with fast guilty pleas, and corresponding negative correlations with slow pleas. Thus, measures of economic deprivation are positively associated with rates of fast pleas in criminal courts. This may be indicative of less representation of the

poor in criminal courts where they are encouraged by both prosecution and defense to plead guilty (Downie, 1972).

Prosecutorial personnel per capita is also significantly related to type of guilty plea in superior courts. The higher the prosecutorial personnel per capita, the greater the rate of fast guilty pleas (.36) and the lower the rate of slow guilty pleas (-.42). Thus, it might be that where prosecutorial resources are relatively scarce, more adversarial proceedings may occur, in terms of more cases being disposed through slow guilty pleas.

Overall, Table 4 shows few significant correlations with conviction and guilty plea rates in superior courts. An exception to this is found for demographic characteristics of jurisdictions only; levels of economic deprivation appear to be positively associated with fast disposal of cases through original pleas of guilt. Furthermore, potential and actual caseload pressure show no consistent or significant relations with means of conviction, and in fact, the signs of the relations suggest that caseload pressure is negatively related to fast processing of felony cases. Thus, it may be that where caseload pressure

is greatest, more adversarial proceedings will occur, in terms of both fewer original guilty pleas, and more trials in criminal courts. The associations between these variables and sentencing rates are discussed in the following section.

j. court sanctioning and demographic characteristics

Table 5 presents correlations for sentencing probabilities, measured by the ratio of frequency of a particular sentence type to total dispositions in a superior court. The percentage of felony convictions of all dispositions is also included. These measures do not represent actual punishments carried out, but only sentencing outcomes. A breakdown of suspended sentences was not available from this data set.

The rate of prison sentencing in superior courts, the most severe sentencing outcome, is most highly correlated with poverty (.51), and unemployment (.42) of all characteristics of jurisdictions measured. A weak negative association is observed for urbanization (-.32). These same demographic features showed similar relationships to original or fast guilty plea rates which in turn could be related to more severe sentencing due to the unlikely dropping of charges.

TABLE 5

Superior Court Sentencing Rates By Demographic Characteristics, Criminal Justice Resources, Rates of Felony Crimes, Means of Conviction, and Potential and Actual Caseload Pressure (1970)  
(Zero-Order Correlations)

Demographic Characteristics	<u>Sentencing Rates</u>					<u>Felony Conviction</u>
	<u>Prison</u>	<u>Incarceration*</u>	<u>Jail Only</u>	<u>Probation and Jail</u>	<u>Probation Only</u>	
<u>(N=33)</u>						
Percent Urban	-.32*	-.20	-.23	.05	.15	.09
Unemployment	.42**	.15	.38*	-.21	.01	-.17
Overcrowded Housing	.12	-.07	.08	-.15	-.06	-.21
Poverty	.51***	.19	-.02	-.02	-.24	.06
Inequality (% Black)	-.19	-.27	-.02	-.15	.32*	-.11
Percent Males						
25-29 yrs.	.07	-.03	-.11	-.13	.10	.01
Percent Males						
under 19 yrs.	-.26	-.02	-.15	-.12	.07	-.30*
<u>Criminal Justice Resources</u>						
<u>(N=35)</u>						
Police Spending	-.26	-.27	-.07	-.07	.27	.06
Police Personnel	-.21	-.33*	.11	-.26	.32*	-.12
Pros. Spending	.03	.01	.36*	-.24	.15	-.08
Pros. Personnel	.17	.16	.15	-.04	-.08	.07
Court Spending	-.06	-.33*	.03	-.27	.27	-.16
Court Personnel	.03	.02	.25	-.16	.01	-.19
<u>Potential and Actual Caseload Pressure</u>						
<u>Police-Prosecutor Resource Imbalance</u>						
<u>(N=26)</u>						
	-.26	-.46**	-.35*	-.12	.37*	.0
<u>Dispositions per Prosecutor Personnel</u>						
<u>(N=36)</u>						
	-.39**	-.45**	.14	-.31	.41**	-.45**

TABLE 5 (continued)

<u>Felony Crime Rates (N=25)</u>	<u>Sentencing Rates</u>			<u>Probation and Jail</u>	<u>Probation Only</u>	<u>Felony Conviction</u>
	<u>Prison</u>	<u>Incarceration*</u>	<u>Jail Only</u>			
Total	-.20	-.17	-.14	.01	.16	.11
Personal	-.27	-.37*	-.06	-.16	.32	-.07
Property	-.19	-.16	-.14	.02	.15	.12
<u>Means of Conviction (N=42)</u>						
Conviction Rate	-.17	-.03	-.22	.17	.02	.51***
Original Guilty Plea	.39*	.25*	.06	.02	-.14	.16
Changed to Guilty Plea	-.43*	-.18	.0	.02	.07	-.11
Tried Guilty	-.01	-.19	-.13	-.08	.17	-.13
Total Guilty Pleas	-.10	.10	-.04	.15	-.08	.37***

\* Prison and jail sentences combined.

\*  $p < .05$   
 \*\*  $p < .01$   
 \*\*\*  $p < .001$

Demographic characteristics show no significant relationships to either incarceration rates (jail and prison sentences combined) or sentences of probation with jail. Unemployment is the only factor related to rates of jail sentences, and this is in the weak range (.38). Similarly, inequality is the only factor measured which is related to straight probation sentencing (.32). The percentage of males less than 19 years of age in the population shows a weak negative association with felony conviction rate (-.30).

Thus, of all sentencing outcomes, the rate of prison sentencing shows the greatest relationship to population measures. Furthermore, the finding of more severe sentencing (prison) in areas of relatively high unemployment and poverty suggest a close connection between economic conditions and sanctioning activities of felony courts, corroborating both the theories of Rusche and Kirchheimer (1939) concerning economic conditions and punishment, and Christie (1967) in terms of increased punishment when it's value is depressed by living conditions of the population.

Additionally, these findings are congruent with those found earlier concerning means of conviction. Economic deprivation was related to fast disposition

of felony cases as measured by original pleas of guilty. More severe sanctioning may occur where fast guilty pleas are obtained because of the likelihood of lesser charges being dropped.

k. court sanctioning and criminal justice resources

As shown in Table 5, superior court sentencing displays only few correlations with criminal justice resource levels. Police personnel per capita show a weak negative correlation with sentencing rates of incarceration (-.33) and a weak positive association with probation sentencing (.32). The signs of the correlations between both police expenditures and personnel per capita and rate of prison sentencing are both negative (-.26 and -.21 respectively), possibly indicating an overload phenomenon which leads to a lowered rate of incarceration. Similarly, police expenditures per capita shows a negative association with sentences of incarceration (-.27) and a positive association with probation sentencing (.27).

Prosecutorial spending is positively related to sentences of jail only (.36) and judicial expenditures show a weak negative association with sentences of incarceration (-.33). None of the resource variables measured are related to the rate of felony

sentences, probation with jail sentences or prison sentences. For the latter, police resources show very weak negative correlations which are not significant:

1. court sanctioning, resource imbalance and court caseload

The degree of imbalance between police and prosecutor resources, a measure of potential court overload, displays weak to moderate correlations with rates of court sentencing. It is negatively related to sentences carrying incarceration (-.46), jail only sentences (-.35) and prison sentencing (-.26,  $p > .05$ ). It also shows a weak positive association with straight probation sentencing. Thus, it appears that the greater the imbalance between these two criminal justice components, the less likely it is for felony defendants to receive harsh punishments.

This relationship is corroborated by the results found for actual caseload pressure, measured as the ratio of dispositions to prosecutorial resources. Caseload pressure is negatively associated with sentences of incarceration (-.45), felony sentences (-.45), prison (-.39) and probation with jail (-.31). It is related positively to sentences of probation

only (.41). Thus, courts with high caseloads appear less likely to impose severe sentences on defendants.

The correlations between both potential and actual caseload pressure and rates of punishments produced by superior courts suggest that punishment may indeed be responsive to overloading of the court system. The data show a weak to moderate negative relation between relatively harsh punishments and caseload. In fact, of all variables shown in Table 5, potential and actual caseloads are the most consistently related to rates of criminal sanctioning.

The possible effect of caseload on sentencing does not appear to be mediated by increased plea bargaining. Potential and actual caseload pressure are not consistently related to means of conviction, or guilty plea rate in the felony court. Court dispositions per capita are actually negatively related to the rate of guilty pleas.

The connection between caseload and final punishment meted out by the courts is thus problematic. Apparently caseload does not increase the proportion of guilty pleas which would, in turn, lessen the certainty of statutory punishments.

A possible answer to this paradox is that the rate of guilty pleas need not increase from burgeoning caseloads in order for caseloads to have an effect on punishment. It is possible that the entire penalty structure, or "going rate" of punishment in criminal courts, is reduced by large numbers of defendants. Backlogged cases, jammed detention facilities, and crowded and inadequate prisons may necessitate "better deals" by the prosecution during the bargaining process.

Thus, the content of these "deals" in terms of reduced charges and promises of leniency may be equally, if not more, important than mere rates of negotiated cases. Unfortunately, this cannot be tested with the data at hand. It appears likely that the qualitative aspects of bargains struck between defense and prosecution go far in explaining the relationship between caseload and criminal sanctioning. Caseload is likely to lower penalty structures used to bargain cases, but it does not appear to effect the proportion of such cases in the criminal courts. The justice meted out under circumstances of relatively high caseloads is not necessarily less adversarial in nature. The "demise of the adversary system" is

probably a less accurate portrayal of what is happening to criminal courts than a "demise of statutory punishment."

m. criminal sanctions and means of conviction

The rate of original pleas of guilty shows a weak, yet positive relation to harsh sentencing (see Table 5). Under such circumstances, court systems which have relatively high numbers of cases disposed of by original or "fast" guilty pleas, also have higher rates of both prison and incarceration sentencing (.39 and .25, respectively). Changed, or slow rates of guilty pleas show a negative association with prison sentencing (-.43). A positive association exists between total guilty plea rate and felony convictions (.37). In addition, those courts with high conviction rates are also likely to have a high proportion of felony convictions (.51).

These relationships generally support the notion that adversariness in the court negatively affects punishment levels. Cases that are processed with relative speed (i.e. by original guilty pleas) may more plausibly result in harsh punishment for the defendant. Of course, various characteristics of an individual case may certainly determine both the means

of disposition and the punishment or lack thereof.

The data show that court systems with higher rates of relatively adversarial proceedings (slow guilty pleas) are also likely to have lowered rates of criminal sanctioning. Whether this is due to the types of cases or "case mix" cannot be determined, but a probable explanation for the pattern is that more charges are more often dropped for changed to guilty pleas. A changed plea by the defendant frequently hinges upon a reduction of charges or a promise of lenient sentencing.

n. crime rate and court sanctions

A weak negative correlation is found between the rate of personal felony crimes and the rate of sentences carrying incarceration. It is interesting to note that while the correlations are not significant, the signs of the associations between rates of felony crimes and both incarceration and prison sentences are negative. For rates of straight probation sentencing, the correlations show positive signs. In light of the preceding findings of positive correlations among crime, police resources and court overload, the associations between crime rates and punishment levels are not surprising. These correlations seem hardly

supportive of a deterrent effect of punishment on crime. In contradistinction, they evidence how rates of crime may overburden legal machinery, resulting in lowered penalty structures (Nagin, 1978; Pontell, 1978).

### Partial Correlation Analysis

The preceding analysis of zero-order correlations presents only a limited picture of the possible relationships among crime, law and society. In order to examine these associations more fully, partial correlations will be employed.<sup>9</sup> Partial correlations allow an

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9. The use of regression techniques here is problematic due to the high interrelationships among the proposed independent variables. This is usually handled by excluding one, or some of the highly related variables, or using factor analysis to reduce the number of variables in the equation. Both of these solutions were considered unsatisfactory in this case since the point of interest is precisely the effects of each variable on court caseload pressure. Partial correlation analysis provides an adequate statistical alternative in this case, since it measures the correlation of residuals between the independent and dependent variables after the effects of the control variable have been removed. The small number of counties on which the regressions would be based also dictated that less variables be analyzed in the same equation. While partial correlations are of limited analytic value compared to regressions, they appear to be better suited for the present analysis.

examination of the relationship between two variables while "controlling" for the effects of other variables. Such an analysis will identify those bi-variate relationships which are "spurious," or due to a common third cause and associations which may be mediated by an intervening variable.<sup>10</sup>

Table 6 presents partial correlations among demographic characteristics, police spending and total felony crime rate. The zero-order correlation between percent urban and crime rate (.38, see Table 1) is significantly reduced when inequality and percent of males 25-29 years are separately controlled. When this relation is controlled for police spending, it becomes negative (-.33). The zero-order correlation between percent males 25-29 years and crime rate is also substantially reduced when controlled for other variables. In contrast, the relation between inequality and crime rate is not reduced significantly except for police resources. When police resources are controlled,

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10. For a discussion of problems in using causal analysis with aggregate data, see H. C. Selvin's discussion of the work of Bentzel and Hansen in "On Following in Someone's Footsteps," R. K. Merton et. al. (eds.) Qualitative and Quantitative Social Research: Papers in Honor of Paul F. Lazarsfeld (forthcoming 1979, Free Press).

TABLE 6  
 Felony Crime Rate by Selected  
 Independent and Control Variables (1970)  
 (Partial Correlations)

<u>Controls</u>	<u>Independent Variables</u>			
	<u>Percent Urban</u>	<u>Inequality</u>	<u>Percent Males Aged 25-29</u>	<u>Police Spending</u>
(N=20)				
Percent Urban	--	.65***	.26	.90***
Inequality	.14	--	.18	.72***
Percent Males aged 25-29	.17	.64***	--	.39***
Police Spending	-.33	.21	.08	--

\*\*\*  $p < .001$

the relation between inequality and crime is only .21, compared to the original relation of .71. This may indicate an intervening influence of police spending. In other words, inequality may increase police spending, which in turn may produce higher reported crime. The high correlation between police spending and crime rate remains essentially unaffected when demographic controls are added. The largest decrease is noted when inequality is controlled, producing a partial correlation of .72. Thus, of all possible determinants of crime, inequality and police spending show significant positive associations when other variables are controlled. The effects of inequality are reduced significantly, however, when police resources are controlled indicating a possible mediating influence of this latter variable.

Table 7 presents additional data that bear on these findings. The partial correlation between inequality and crime is reduced to .21 when police spending is controlled, and is .18 when police personnel is controlled. Since it is unlikely that police resources "cause" inequality, and hence explain away the relation between inequality and crime, it appears plausible that it is an intervening influence. However,

TABLE 7

Inequality (Percent Black) by Police  
Resources and Felony Crime Rate (1970)  
(Partial Correlations)

<u>Controls</u>	<u>Felony Crime</u>	<u>Police Spending</u>	<u>Police Personnel</u>
(N=20)			
Felony Crime	--	.29	.35*
Police Spending	.21	--	--
Police Personnel	.18	--	--

\*  $p < .05$

when the relation between inequality and police resources is controlled for crime, the association is also reduced, but remains significantly positive for police personnel (.35). There is a weak relation between police personnel and inequality regardless of the amount of crime. Thus, it is possible that police resources provide an intervening link between inequality and crime. Where there are relatively high amounts of inequality, more police are deployed, regardless of the reported crime rate. More police presence may lead to an increase in reported crimes due to an increased capacity to record and detect it in such areas.

Table 8 reinforces this finding. The associations between inequality and police resources remain essentially unaffected when percent urban and percent males aged 25-29 are controlled. Table 9 displays partial correlations between criminal justice resources and felony crime rate controlling for selected demographic characteristics. The original associations remain unaffected except for a slight reduction between police resources and crime rate when inequality is controlled. Inequality does not "explain away" this relation, but does reduce it slightly. In addition,

TABLE 8  
 Police Spending and Personnel by Selected  
 Independent and Control Variables (1970)  
 (Partial Correlations)

<u>Controls</u>	<u>Independent Variables</u>					
	<u>Police Spending</u>			<u>Police Personnel</u>		
	<u>Percent Urban</u>	<u>Inequality</u>	<u>Percent Males 25-29 yrs.</u>	<u>Percent Urban</u>	<u>inequality</u>	<u>Percent Males 25-29 yrs.</u>
(N=24)						
Percent Urban	---	.64***	.35*	---	.67***	.36*
Inequality	.48**	---	.45*	.32	---	.39*
Percent Males 25-29 yrs.	.37*	.63***	---	.24	.66***	---

\*  $p < .05$   
 \*\*  $p < .01$   
 \*\*\*  $p < .001$

TABLE 9  
 Felony Crime Rate by Criminal  
 Justice Resources Controlled for  
 Demographic Characteristics (1970)  
 (Partial Correlations)

<u>Controls</u>	<u>Criminal Justice Resources</u>					
	<u>Police</u> <u>Spending</u>	<u>Police</u> <u>Personnel</u>	<u>Prosecutor</u> <u>Spending</u>	<u>Prosecutor</u> <u>Personnel</u>	<u>Superior Court</u> <u>Spending</u>	<u>Superior Court</u> <u>Personnel</u>
(N=20)						
Percent Urban	.91***	.87***	.02	-.29	.41*	.64***
Unemployment	.91***	.89***	.04	-.26	.54**	.69***
Poverty	.90***	.88***	.02	-.25	.52**	.69***
Inequality	.72***	.68***	.05	-.09	.23	.59**
Percent Males 25-29 yrs.	.88***	.86***	.14	-.24	.38	.59**

\*  $p < .05$   
 \*\*  $p < .01$   
 \*\*\*  $p < .001$

the correlation of .54 between superior court resources and crime rate is reduced to .23 when inequality is controlled. While these data do not indicate the causal direction of the relationship between crime and criminal justice resources, they do indicate that the relationship remains largely unaffected by population characteristics. Where there are more police, there are more reported crimes, regardless of population characteristics. However, there is a reduction in the association between both police spending and personnel and crime rate when inequality is controlled (from .90 to .72 and .89 to .68, respectively).

Table 10 displays the partial correlations among criminal justice resource levels and actual caseload pressure controlling for measures of potential pressure. For police resources, the relationships are greatly reduced, indicating a possible mediating influence of potential pressure in the relationship between police resources and court caseload pressure. Increased police resources are likely to create a condition of potential court caseload pressure, which, in turn, leads to increased court caseloads. In contrast, the

TABLE 10

Court Caseload Pressure by  
.. Criminal Justice Resources Controlled  
for Potential Court Caseload Pressure (1970)  
(Partial Correlations)

<u>Controls</u>	<u>Criminal Justice Resources</u>					
	<u>Soending</u>	<u>Police Personnel</u>	<u>Soending</u>	<u>Prosecutor Personnel</u>	<u>Soending</u>	<u>Superior Court Personnel</u>
(N=35)						
Felony Arrest Rate	.03	.08	-.21	-.69***	-.13	-.33
Police-Prosecutor Resource Imbalance	.06	.16	.25	-.44*	.08	-.27
Court Dispositions per capita	.22	.12	-.44*	-.90***	-.12	.04

\*  $p < .05$   
\*\*  $p < .01$   
\*\*\*  $p < .001$

negative relation between prosecutor resources and caseload remains, and for personnel levels is substantially increased when dispositions per capita is controlled (-.90). Thus, where there are relatively less prosecuting resources, greater caseloads for the prosecutor will exist, despite conditions of potential court overload. Controlling for demographic influences does not significantly alter the relationships among resource levels and caseload pressure, with the exception of inequality. When inequality is controlled, the relationship between police resources and caseload pressure disappears, indicating a spurious relationship. Thus, it appears that inequality affects both police resources and court caseload pressure, and may be responsible for the observed relation between the latter two variables.

Table 11 displays the partial correlations among demographic characteristics and measures of potential caseload pressure, namely, felony arrest rate and police-prosecutor resource imbalance. Inequality remains significantly related to potential caseload pressure, when other demographic influences are controlled. It is reduced the most when police resources are controlled. The relationship between

TABLE 11

Selected Demographic Characteristics by  
 Potential Court Caseload Controlled for Demographic  
 Characteristics and Police Resources (1970)  
 (Partial Correlations)

	<u>Potential Court Caseload</u>			<u>Police-Prosecutor Resource Imbalance</u>		
	<u>Inequality</u>	<u>Percent Urban</u>	<u>Percent Males 25-29 yrs.</u>	<u>Inequality</u>	<u>Percent Urban</u>	<u>Percent Males 25-29 yrs.</u>
<u>Controls</u> (N=35)						
Percent Urban	.63***	--	.39*	.65***	--	.51**
Inequality	--	.22	.37*	--	.12	.45*
Percent Males 25-29 yrs.	.61***	.15	--	.61***	-.01	--
Police Spending	.25	-.17	.09	.36*	-.15	.28
Police Personnel	.20	.02	.16	.37*	.02	.34

\*  $p < .05$   
 \*\*  $p < .01$   
 \*\*\*  $p < .001$

urbanization and potential court caseload disappears when other demographic characteristics are controlled. Percent males aged 25-29 remains associated with potential caseload when population characteristics are controlled, but is significantly reduced when police resources are controlled, pointing to a possible intervening influence of police resources. It is interesting to note that although the relationship between inequality and police-prosecutor resource imbalance is reduced when police resources are controlled, the relation remains significantly positive. Thus, where inequality is greater, potential court caseload is likely to be greater, despite police spending levels.

The original finding of no significant correlations between court caseload pressure and means of conviction is not changed when demographic factors are controlled.

The partial correlations among crime, inequality, police resources and caseload pressure are displayed in Table 12. Inequality remains positively related to caseload pressure when police resources are controlled. However, it is reduced from .54 to .30 when crime is controlled. The relationship between police resources

TABLE 12

Court Caseload Pressure by Inequality,  
Police Resources and Felony Crime Rate (1970)  
(Partial Correlations)

<u>Controls</u>	<u>Inequality</u>	<u>Police Spending</u>	<u>Police Personnel</u>	<u>Felony Crime Rate</u>
(N=20)				
Inequality	---	-.09	.02	-.15
Police Spending	.59**	---	---	.12
Police Personnel	.56**	---	---	.14
Felony Crime Rate	.30	.15	.25	---

\*\*  $p < .01$

and court caseload pressure disappears when inequality and crime are controlled separately. These findings appear to indicate that where inequality is greater, court caseloads will also be greater, despite police resource levels. The relationship between police resources and pressure appears to be explained by inequality in the population. As shown earlier in Table 7, inequality may lead to increased police resources, which, in turn, may lead to higher reported crime rates.

The partial correlations in Table 12 are consistent with these findings as they relate to court caseload. Inequality explains away the relation between police resources and caseload (it affects both). It also explains the relation between crime and caseload pressure, but is likely to be associated with crime mainly through its affect on police resource levels. While causal priority is not established here, or in any studies to date, it is interesting to note that inequality does affect court caseload pressure independent of police resources, and is only slightly reduced when crime rate is controlled. This appears to document the institutionalized selection process of authorities, which results in heavy concentrations of

TABLE 13  
 Rate of Prison Sentencing by Selected  
 Independent and Control Variables (1970)  
 (Partial Correlations)

<u>Controls</u>	<u>Independent Variables</u>			
	<u>Original Guilty Plea</u>	<u>Poverty</u>	<u>Unemployment</u>	<u>Percent Urban</u>
(N=33)				
Original Guilty Plea	---	.37*	.22	-.06
Poverty	.22	---	.20	.0
Unemployment	.23	.39**	---	-.06
Percent Urban	.27	.42**	.26	---

\*  $p < .05$   
 \*\*  $p < .01$

minority defendants.

Table 13 shows the partial correlations among demographic characteristics, original guilty pleas, and the rate of prison sentencing. Poverty remains positively related to the rate of prison sentencing when other variables are controlled. Unemployment and original guilty please also remain positively related, although they are reduced slightly from their original degrees of association. In contrast, the original negative relation between urbanization and prison sentencing is reduced to zero. Of all demographic characteristics measured, poverty shows the highest association with prison sentencing.

#### Summary

Inequality appears to be an important determinant of police resource levels, which, in turn, are related to rates of felony crime. Inequality also appears to explain the relation between police resources and caseload pressure. In addition, inequality in the population affects potential court caseload independent of other demographic influences. The finding of no significant association between caseload and means of conviction remains when demographic

influences are controlled.

Of all demographic characteristics, poverty remains significantly related to prison sentencing when controls are added. Unemployment also remains positively related when controls are added, but the original relation is substantially reduced.

The data show the highly complex set of interrelationships among crime, punishment and society. This analysis has barely begun to disentangle these relations. It is noteworthy, however, that inequality and measures of economic deprivation appear to play a substantial part in the generation of punishment. Furthermore, police resources appear to be more closely related to crime rates than other demographic characteristics. The effect of inequality on police resource levels and potential and actual court caseload, points to the importance of measuring the degree of relative deprivation when examining the relation between crime and punishment. Inequality appears to influence police resources more than crime rate. Relative deprivation also affects potential and actual court caseload, which, in turn, influences the generation of criminal sanctions. The influence of caseload pressure on sanctioning does not appear to be mediated by increased

bargaining, or a greater degree of "assembly line justice." Rather, caseload may affect the qualitative aspects of plea bargains, in terms of lowered penalties for convicted defendants.

## VI. CONCLUSION

This study has examined the aggregate relations among crime, demographic characteristics, criminal justice resources, court processing and final sanctioning outcomes at the court level.

The implications for deterrence theory and research are clear from the findings. Current criminal justice practices, especially the extremely low probability of receiving a certain and severe punishment, indicates that the deterrent efficacy of punishment is likely to be minimal. This is not to say that deterrence does not, or cannot work, but only that it is highly unlikely under present practices of criminal justice. In addition, this study examines probability of sanction at the court level only. Other aspects of sanctioning have not been examined. The results presented here are positive enough, however, to at least question current research on deterrence, in that there appears to be much more happening in the etiology of crime and punishment than merely an effect of punishment on crime. Court caseloads, influenced particularly by the degree of inequality in the population, appear to be pushing down formal penalty structures, and the probability of sanction. The inability of courts to

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produce severe and certain sanctions is also linked to the overfunding of police relative to other criminal justice agencies. Putting more cops on the beat may lead to a further erosion of the deterrent efficacy of punishment, as more violators are pushed through the "revolving door" of the courts. What defendants actually see as capricious and arbitrary practices in criminal courts can only lead to a further disrespect for law among those in the lower class who comprise the vast majority of cases in felony courts. In view of rather uncertain sanctions, and contempt for the process by which they are applied, the reality of deterrence as an effect of punishment is extremely limited for those which the system aspires to deter the most -- the lower class. In the words of Rusche and Kirchheimer (1939): "The crime rate can really be influenced only if society is in a position to offer its members a certain measure of security and to guarantee a reasonable standard of living. The shift from a repressive penal policy to a progressive program can then be raised out of the sphere of humanitarianism to constructive social activity. . . . The futility of severe punishment and cruel treatment may be proven a thousand times, but so long as society is unable to

solve its social problems, repression, the easy way out, will always be accepted."

The role of the police in the generation of crime and punishment cannot be underestimated. In studying the ineffectiveness of increased police personnel to prevent crime, Levine (1975, 531) notes:

"To the extent that potential criminals correctly perceive the limitations of police, the credibility of legal sanctions is diminished and the deterrent capacity of the criminal justice system is undermined."

In addition to this proposition, the findings of this study indicate that a similar phenomenon is likely operating at the felony court level. The extremely low probability of severe sanctioning in court may further undermine deterrent goals of punishment. Violators who are processed through the system are likely to become cynical of the criminal law after exposure to arbitrary court practices. Thus, the irregular imposition of criminal sanctions by courts adds to the ineffectiveness of increased police to prevent crime. In addition, the data reported here indicates that less certain sanctioning occurs precisely in those areas which have high police resources relative to prosecuting resources.

The findings reported here are also congruent with those of Wellford (1974). In analyzing crime rates, socioeconomic variables and police resources, Wellford finds that socioeconomic variables account for 59 percent of the variation in crime rate whereas crime control variables account for only 6 percent. This is indicative of the incapacity of police to deal with the "crime problem".

In contrast to the findings of Atkinson and Dunn (1973), who claim that 60 percent of the variation in police resources is explained by crime rate, the results presented in this study indicate that this may be misleading. Inequality remains significantly related to police resources when crime rate is controlled. Thus, regardless of crime, where inequality is high, police resources are likely to be high. When police resources are controlled, the relationship between inequality and crime is dramatically reduced, indicating the possible intervening influence of police capacity in the relation between inequality and reported crime. This finding is also at odds with a recently completed study by McPheters and Stronge (1974). Using simultaneous equations to disentangle the mutual effects of crime and police resources, they choose an

identification restriction which indicates that demographic characteristics are causally related to crime, but do not influence police resources independently. That is, it is assumed that demographic characteristics influence police resources only through their effects on crime. The results presented here indicate that inequality influences police resources independent of its effect on crime, thus questioning their assumption.

Finally, the results related to caseloads and adversariness do not support the notion that caseloads are responsible for increased rates of plea bargaining. Caseloads do appear to reduce the certainty of severe final sentencing outcomes in felony courts, but this does not appear to be brought about by less adversariness in the processing of cases.

This is contrary to the argument set forth by Blumberg (1967) which posits that increased caseloads lead to less adversariness in the processing of criminal cases. He states:

"The seeming separateness of the parties (police, prosecution, judge, probation officer, psychiatrist, defense counsel, and accused) is illusory. On the contrary, these 'adversaries' are integrated into a bureaucratic matrix. They are a functional system, eliminating any 'separateness' that may have existed. The very fact that the

parties are not independent  
helps to weaken the idea of  
truth through combat (181)."

The results reported here question Blumberg's position that criminal justice agencies are integrated into a "bureaucratic matrix". While some degree of cooperation is sure to exist, the data show that prolonged bargaining has become the norm in California counties. In addition, criminal justice agencies receive funds from different sources, and the vast differences in resources among agencies suggest that they are not very well integrated into a "system". There is no formal hierarchy of authority in criminal justice; each agency, although somewhat dependent on the activities of other agencies, are independent organizational entities. Furthermore, although some cooperation exists between agencies, Skolnick (1967) notes that this does "not demonstrably impede the quality of representation" (53).

There is little doubt that formal goals of punishment, including that of deterrence may become secondary to personal and administrative goals of participants in the legal process. However, this does not necessarily mean that less adversariness will result. Rather, what the findings here indicate

**CONTINUED**

**2 OF 3**

is a "demise of statutory punishment." Caseloads appear less responsible for declining adversariness in felony courts, than for a reduction in criminal punishments. The resources of the court appear to be saturated by the cases brought before it. Because the adversary ideal is not met in each and every case does not imply that there is no adversariness at all in the adjudication of criminal cases. Furthermore, in this study, and in others (Mileski, 1971, Mather, 1973), there is no clear evidence found which indicates that caseloads influence the rapid processing of cases.

It is presently impossible for the state to administer sanctions which are both swift and severe to the vast majority of criminal defendants. This non-practice stands in direct opposition to the major tenets of deterrence doctrine. It appears more plausible that rates of crime, influenced by inequality, other socio-economic conditions, and overfunding of police relative to courts and prisons, have pushed down formal penalty structures. This does not disprove deterrence, but merely documents that its effects, if they exist at all, are likely to be greatly reduced in practice. Thus the task for future

research should not be whether deterrence in the abstract is capable of working, but rather whether deterrence is likely to operate given the practices and structure of American criminal justice.

## BIBLIOGRAPHY

- Alschuler, Albert W. 1968. "The Prosecutor's Role in Plea Bargaining." University of Chicago Law Review. Vol. 36:50.
- Andenaes, J. 1966. "The General Preventive Effects of Punishment." University of Pennsylvania Law Review. Vol. 114, No. 7:949.
- \_\_\_\_\_. 1974. Punishment and Deterrence. Ann Arbor: University of Michigan Press.
- Antunes, G. and Hunt, A.L. 1973. "The Deterrent Impact of Criminal Sanctions: Some Implications for Criminal Justice Policy." Journal of Urban Law. Vol. 51, No. 2:145.
- Atkinson, David N. and Dunn, Jr., James A. 1973. "The Impact of Expenditures on the Operation of the Criminal Justice System." Washburn Law Journal. Vol. 12:269.
- Bailey, W.C. and Smith, R.W. 1972. "Punishment: Its Severity and Certainty." Journal of Criminal Law, Criminology and Police Science. Vol. 63, No. 4:530.
- Balbus, Isaac D. 1973. The Dialectics of Legal Repression: Black Rebels Before the American Criminal Courts. New York: The Russell Sage Foundation.
- Ball, J.C. 1955. "The Deterrence Concept in Criminology and Law." Journal of Criminal Law, Criminology and Police Science. (September-October):347.
- Bean, F. and Cushing, R. 1971. "Criminal Homicide, Punishment and Deterrence: Methodological and Substantive Reconsiderations." Social Science Quarterly. Vol. 52, No. 2:277.
- Bechdolt, Jr., Burley V. 1975. "Cross-Sectional Analyses of Socioeconomic Determinants of Urban Crime." Review of Social Economy. Vol. 33, No. 2:132.
- Becker, G. 1967. "Crime and Punishment: An Economic Approach." Journal of Political Economy. Vol. 78, No. 2:526.
- Bittner, Egon. 1967. "The Police on Skid-Row: A Study of Peace Keeping." American Sociological Review. Vol. 32: 699.

- Bittner, Egon and Platt, A. 1966. "The Meaning of Punishment." Issues in Criminology. Vol. 2, No. 1:79.
- Black, Donald J. 1971. "The Social Organization of Arrest." Stanford Law Review. Vol. 23, No. 6:1087.
- Blumberg, Abraham. 1967. Criminal Justice. Chicago: Quadrangle Books.
- Blumstein, Alfred and Cohen, Jacqueline. 1973. "A Theory of the Stability of Punishment." Journal of Criminal Law and Criminology. Vol. 64, No. 2:198.
- Bohrnstedt, George W. 1969. "Observations on the Measurement of Change," in Borgatta, E.F. (ed.) Sociological Methodology, pp. 113-133. San Francisco: Jossey-Bass.
- Bonger, William. 1969. Criminality and Economic Conditions. Bloomington: Indiana University Press.
- Bordua, D.J. and Haurek, E.W. 1970. "The Police Budget's Lot." American Behavioral Scientist. Vol. 13, No. 5 & 6: 667.
- California State Assembly Office for Research. 1968. Crime and Penalties in California. Sacramento: State of California.
- Carlin, Jerome E. and Howard, Jan. 1965. "Legal Representation and Class Justice." UCLA Law Review. Vol. 12:381.
- Casper, Jonathan D. 1972. American Criminal Justice: The Defendant's Perspective. New Jersey: Prentice-Hall.
- Chambliss, William J. (ed.). 1969. Crime and the Legal Process. New York: McGraw Hill.
- Chiricos, T.G. and Waldo, G.P. 1970. "Punishment and Crime: An Examination of Some Empirical Evidence." Social Problems. Vol. 18:200.
- Christie, Nils. 1968. "Changes in Penal Values." Scandinavian Studies in Criminology. (Oslo: Universitets forlaget). Vol. 2:161.
- Cousineau, Douglas F. 1973. "A Critique of the Ecological Approach to the Study of Deterrence." Social Science Quarterly. Vol. 54, No. 1 (June):152-158.
- Crockett, Jr., G.W. 1972. "Racism in the Courts." Howard Law Journal. Vol. 17, No. 2:296.

- Danziger, Sheldon and Wheeler, David. 1975. "The Economics of Crime: Punishment or Income Redistribution." Review of Social Economy. Vol. 33, No. 2:113.
- Downie, Leonard. 1972. Justice Denied. New York: Penguin Books.
- Ehrlich, I. 1973. "Participation in Illegitimate Activities: A Theoretical and Empirical Investigation." Journal of Political Economy. Vol. 81, No. 3:521.
- Enker, A. 1967. "Perspectives on Plea Bargaining" in President's Commission on Law Enforcement and the Administration of Justice, Task Force Report: The Courts. Washington, D.C.: Government Printing Office.
- Erickson, Maynard L. and Gibbs, Jack P. 1975. "Specific Versus General Properties of Legal Punishments and Deterrence." Social Science Quarterly. Vol. 56, No. 3 (December):390-397.
- \_\_\_\_\_ et. al. 1977. "The Deterrence Doctrine and the Perceived Certainty of Legal Punishments." American Sociological Review. Vol. 42, No. 2:305.
- Feeley, Malcolm M. 1973. "Two Models of the Criminal Justice System: An Organizational Perspective." Law and Society Review. Vol. 7 (Spring):407.
- \_\_\_\_\_. "The Effects of Heavy Caseloads," paper delivered at the 1975 Annual Meetings of the American Political Science Association, San Francisco, California, September 5, 1975.
- Fleming, Macklin. 1974. The Price of Perfect Justice. New York: Basic Books.
- Frisbie, Parker W. and Neidert, Lisa. 1977. "Inequality and the Relative Size of Minority Populations: A Comparative Analysis." American Journal of Sociology. Vol. 82, No. 5: 1007.
- Fuller, Lon L. 1968. Anatomy of the Law. New York: Mentor Books.
- Geerken, Michael and Gove, Walter R. 1977. "Deterrence, Overload, and Incapacitation: An Empirical Evaluation." Social Forces. Vol. 56, No. 2:424.
- \_\_\_\_\_ and \_\_\_\_\_. 1975. "Deterrence: Some Theoretical Considerations." Law and Society Review. (Spring):497.

- Gibbons, Don C. 1971. "Observations on the Study of Crime Causation." American Journal of Sociology. Vol. 77, No. 2: 262.
- Gibbs, Jack P. 1968. "Crime, Punishment and Deterrence." Southwestern Social Science Quarterly. Vol. 48, No. 4:515.
- \_\_\_\_\_. 1975. Crime, Punishment and Deterrence. New York: Elsevier Scientific Publishing Co.
- \_\_\_\_\_. 1978. "Deterrence, Penal Policy, and the Sociology of Law," in Research in Law and Sociology. Vol. 1: 101.
- \_\_\_\_\_. 1977. "Social Control, Deterrence, and Perspectives on Social Order." Social Forces. Vol. 56, No. 2: 408.
- Goldstein, J. 1969. "Police Discretion Not to Invoke the Criminal Process: Low Visibility Decisions in the Administration of Justice." The Yale Law Journal. Vol. 69, No. 4:543.
- Gray, L.N. and Martin, D.J. 1969. "Punishment and Deterrence: Another Analysis of Gibbs' Data." Social Science Quarterly. Vol. 50, No. 2:389.
- Greenwood, Michael J. and Wadycki, Walter J. 1973. "Crime Rates and Public Expenditures for Police Protection: Their Interaction." Review of Social Economy. Vol. 31, No. 2:138.
- Henshel, Richard L. and Silverman, Robert A., (eds.). 1972. Perception in Criminology. New York: Columbia University Press.
- Heuman, Milton. 1975. "A Note on Plea Bargaining and Case Pressure." Law and Society Review. (Spring):515.
- Hirschi, Travis and Selvin, Hanan C. 1973. Principles of Survey Analysis (formerly titled Delinquency Research). New York: The Free Press.
- Hirst, P. 1972. "Marx and Engles on Law, Crime and Morality." Economy and Society. Vol. 1:28.
- Jacob, Herbert. 1972. Justice in America: Courts, Lawyers, and the Judicial Process, (second edition). Boston: Little, Brown and Co.
- James, Howard. 1968. Crisis in the Courts. New York: David McKay.

- Jensen, Gary F. 1969. "Crime Doesn't Pay: Correlates of a Shared Misunderstanding." Social Problems. Vol. 17:189.
- Karlen, Delmar, et. al.. 1967. Anglo-American Criminal Justice. New York: Oxford University Press.
- Kobrin, S. et. al. 1972. The Deterrent Effectiveness of Criminal Justice Sanction Strategies: Summary Report. Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice. Washington, D.C.: U.S. Government Printing Office.
- Levin, M. 1977. Urban Politics and the Criminal Courts. Chicago: University of Chicago Press.
- Levine, James P. 1975. "The Ineffectiveness of Adding Police to Police to Prevent Crime." Public Policy. Vol. 23, No.4: 523.
- Logan, C.H. 1975. "Arrest Rates and Deterrence." Social Science Quarterly. Vol. 56, No. 3:376.
- \_\_\_\_\_. 1971. "On Punishment and Crime (Chiricos and Waldo 1970): Some Methodological Commentary." Social Problems. Vol. 19, No. 2:280.
- \_\_\_\_\_. 1972. "General Deterrent Effects of Imprisonment." Social Forces. Vol. 51, No. 1:64.
- \_\_\_\_\_. 1978. "Statistical Artifacts in Deterrence Research," in C. Wellford (ed.) Quantitative Studies in Criminology, pp. 64-83. Beverly Hills: Sage Publications.
- Mannheim, H., (ed.). 1960. Pioneers in Criminology. Chicago: Quadrangle.
- Mather, Lynn M. 1973. "Some Determinants of the Method of Case Disposition: Decision-Making by Public Defenders in Los Angeles." Law and Society Review. Vol. 8 (Winter):187.
- \_\_\_\_\_. 1974. "The Outsider in the Courtroom: An Alternative Role for Defense," in Herbert Jacob (ed.) The Potential for Reform of Criminal Justice, pp. 263-289. Beverly Hills: Sage Publications.
- McPheters, Lee R. and Stronge, William B. 1974. "Law Enforcement Expenditures and Urban Crime." National Tax Journal. Vol. 27, No. 4:633.

- Meir, R.F. and Johnson, W.T. 1977. "Deterrence as Social Control: The Legal and Extralegal Production of Conformity." American Sociological Review. Vol. 42, No. 2:292.
- Nagel, Stuart and Neef, Marian. 1978. "Causal Analysis and the Legal Process." Research in Law and Sociology. Vol. 1: 201.
- Nagin, D. 1978. "Crime Rates, Sanction Levels, and Constraints on Prison Population." Law and Society Review. Vol. 12, No. 3:341.
- National Academy of Sciences. 1978. Deterrence and Incapacitation: Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, A. Blumstein, et. al. (eds.). Washington, D.C.
- Newman, Donald J. 1966. Conviction: The Determination of Guilt or Innocence Without Trial. Boston: Little, Brown and Co.
- Packer, Herbert L. 1968. The Limits of the Criminal Sanction. Stanford: Stanford University Press.
- Phillips, Llad and Votey, Jr., Harold L. 1972. "An Economic Analysis of the Deterrent Effect of Law Enforcement on Criminal Activity." The Journal of Criminal Law, Criminology and Police Science. Vol. 63, No. 3:330.
- Pound, Roscoe. 1924. Criminal Justice in America. New York: Holt.
- \_\_\_\_\_ and Frankfurter, Felix (eds.). 1922. Criminal Justice in Cleveland. Cleveland: The Cleveland Foundation.
- Pontell, Henry N. 1978. "Deterrence: Theory Versus Practice." Criminology. Vol. 16, No. 1:4.
- (The) President's Commission on Law Enforcement and Administration of Justice. 1967. The Challenge of Crime in a Free Society; and the Commissioner's Task Force Report: The Courts, 1967.
- Quinney, Richard. 1977. Class State and Crime: On the Theory and Practice of Criminal Justice. New York: David McKay.
- Reasons, Charles E. and Kuykendall, Jack L. (eds.). 1972. Race, Crime, and Justice. Pacific Palisades: Goodyear Publishing Co.

- Rosett, Arthur and Cressey, Donald R. 1976. Justice By Consent: Plea Bargains in the American Courthouse. Philadelphia: J.B. Lippincott Co.
- Rothman, David J. 1971. The Discovery of the Asylum: Social Order and Disorder in the New Republic. Boston: Little, Brown and Co.
- Rusche, Georg and Kirchheimer, Otto. 1939. Punishment and Social Structure. New York: Columbia University Press.
- Salem, R.G. and Bowers, W.J. 1970. "Severity of Formal Sanctions as a Deterrent to Deviant Behavior." Law and Society Review. Vol. 5, No. 1:21.
- Schwartz, B. 1968. "The Effect in Philadelphia of Pennsylvania's Increased Penalties for Rape and Attempted Rape." Journal of Criminal Law, Criminology and Police Science. Vol. 59, No. 4:509.
- Sellin, Thorsten. 1937. Research Memorandum on Crime in the Depression. Social Science Research Council.
- Selvin, Hanan C. "On Following in Someone's Footsteps," in R.K. Merton, et. al. (eds.) Qualitative and Quantitative Social Research: Papers in Honor of Paul F. Lazarsfeld. (Forthcoming, 1979, The Free Press.)
- Shinnar, R. and Shinnar, S. 1975. "The Effects of the Criminal Justice System on the Control of Crime: A Quantitative Approach." Law and Society Review. Vol. 9, No. 4:581.
- Skogan, Wesley G. 1974. "The Validity of Official Crime Statistics: An Empirical Investigation." Social Science Quarterly. (June), pp. 25-38.
- Skolnick, Jerome H. 1966. Justice Without Trial. New York: John Wiley.
- \_\_\_\_\_. 1967. "Social Control in the Adversary System." Journal of Conflict Resolution. Vol. 11, No. 1:52.
- Sudnow, David. 1965. "Normal Crimes: Sociological Features of the Penal Code in a Public Defender Officer." Social Problems. Vol. 12, No. 3:255.
- Sykes, G.M. 1978. Criminology. New York: Harcourt, Brace and Jovanovich.

- Tannenbaum, F. 1938. Crime and the Community. New York: Columbia University Press.
- Tittle, C.R. 1969. "Crime Rates and Legal Sanctions." Social Problems. Vol. 16, No. 4:409.
- \_\_\_\_\_ and Logan, C.H. 1973. "Sanctions and Deviance: Evidence and Remaining Questions." Law and Society Review. (Spring):371.
- \_\_\_\_\_ and Rowe, A.R. 1974. "Certainty of Arrest and Crime Rates: A Further Test of the Deterrence Hypothesis." Social Forces. Vol. 52, No. 4:455.
- \_\_\_\_\_ and \_\_\_\_\_. 1973. "Moral Appeal, Sanction Threat, and Deviance: An Experimental Test." Social Problems. Vol. 20, No. 4:488.
- Tulloch, G. 1974. "Does Punishment Deter Crime?" Public Interest. Vol. 36 (Summer):103.
- University of Pennsylvania Law Review. 1964. "Guilty Plea Bargaining: Compromises by Prosecutors to Secure Guilty Pleas." Vol. 112:865.
- U.S. Department of Justice LEAA. 1976. Sourcebook of Criminal Justice Statistics - 1976. Washington, D.C.: Government Printing Office.
- Vold, G.B. 1958. Theoretical Criminology. New York: Oxford University Press.
- Waldo, G.P. and Chiricos, T.G. 1973. "Perceived Penal Sanction and Self-Reported Criminology: A Neglected Approach to Deterrence Research." Social Problems. Vol. 20, No.4:522.
- Wellford, Charles R. 1974. "Crime and the Police: A Multivariate Analysis." Criminology. Vol. 12, No. 2 (August):195-213.
- Wilson, J.Q. 1975. Thinking About Crime. New York: Basic Books.
- \_\_\_\_\_. 1968. Varieties of Police Behavior: The Management of Law and Order in Eight Communities. New York: Atheneum.
- Wolfgang, Marvin E. 1968. "Urban Crime" in J.Q. Wilson (ed.), The Metropolitan Enigma. Cambridge: Harvard University Press.

Wright, E.O. 1973. The Politics of Punishment: A Critical Analysis of Prisons in America. New York: Harper and Row.

Zimring, Franklin E. 1971. Perspectives on Deterrence. National Institute of Mental Health. Washington, D.C.

\_\_\_\_\_ and Hawkins, Gordon J. 1973. Deterrence The Legal Threat in Crime Control. Chicago: University of Chicago Press.

## APPENDIX 1

Felony Crime Rates per 100,000 population  
 Median, Semi-Interquartile Range (Q), First (Q<sub>1</sub>), and Third (Q<sub>3</sub>) Quartiles

California Counties 1966-1974

	1966	1967	1968	1969	1970	1971	1972	1973	1974	Per- cent Change
<u>Total Felony Crime Rate*</u>										
Median	1605.6	1668.6	1902.8	2162.3	2505.9	2774.8	2835.0	2983.8	3288.8	104.8
(Q)	398.0	358.3	403.4	444.4	507.5	529.1	530.5	420.7	459.6	
(Q <sub>1</sub> )	1239.8	1388.7	1641.3	1848.1	2103.5	2446.7	2496.9	2531.7	2791.9	
(Q <sub>3</sub> )	2035.7	2105.3	2448.1	2736.8	3118.4	3504.9	3557.8	3373.1	3711.0	
Number of Counties	(25)	(24)	(24)	(24)	(25)	(25)	(25)	(27)	(27)	
<u>Felony Property Crime Rate**</u>										
Median	1507.7	1567.0	1800.0	2041.1	2365.4	2573.1	2575.0	2727.0	2924.4	94.0
(Q)	378.2	319.6	382.8	435.0	469.8	507.9	451.5	330.4	416.8	
(Q <sub>1</sub> )	1167.2	1306.7	1537.3	1729.3	1946.1	2290.3	2326.0	2356.1	2549.3	
(Q <sub>3</sub> )	1923.6	1945.9	2302.9	2599.3	2885.7	3306.0	3229.0	3016.3	3383.4	
Number of Counties	(25)	(24)	(24)	(24)	(25)	(25)	(25)	(27)	(27)	
<u>Felony Personal Crime Rate***</u>										
Median	113.6	120.3	123.4	137.5	153.3	181.2	193.8	243.6	303.1	166.8
(Q)	32.0	29.2	27.7	21.3	26.5	38.3	48.7	54.9	72.3	
(Q <sub>1</sub> )	32.7	89.0	95.0	118.4	125.7	150.6	164.5	190.6	201.3	
(Q <sub>3</sub> )	146.6	147.3	150.3	160.9	179.7	228.2	251.3	320.3	346.3	
Number of Counties	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(27)	(27)	

\*Includes willful homicide, rape, assault, robbery, burglary, theft, and auto theft.

\*\*Includes robbery, burglary, theft, and auto theft.

\*\*\*Includes willful homicide, rape, and assault.

## APPENDIX 2

## Criminal Justice Spending\*

Median, Semi-Interquartile Range (Q), First (Q<sub>1</sub>), and Third (Q<sub>3</sub>) Quartiles

California Counties 1968-1974

	1968	1969	1970	1971	1972	1973	1974	Percent Change
<u>Police Spending per capita</u>								
Median	15.9	17.8	19.4	22.0	23.8	26.7	30.6	92.5
(Q)	1.7	1.9	2.1	2.9	3.3	3.9	5.0	
(Q <sub>1</sub> )	13.9	16.1	17.8	19.2	21.2	23.9	26.5	
(Q <sub>3</sub> )	17.3	19.8	21.9	25.0	27.3	31.6	36.5	
Number of Counties	(58)	(58)	(58)	(58)	(58)	(58)	(58)	
<u>Prosecutorial Spending per capita</u>								
Median	1.5	1.7	2.0	2.3	2.6	2.9	3.4	125.7
(Q)	.4	.3	.3	.4	.5	.5	.6	
(Q <sub>1</sub> )	1.2	1.4	1.7	2.0	2.2	2.6	2.9	
(Q <sub>3</sub> )	1.9	2.0	2.3	2.8	3.2	3.5	4.0	
Number of Counties	(54)	(54)	(54)	(55)	(55)	(55)	(56)	
<u>Superior Court Spending per capita</u>								
Median	1.0	1.1	1.1	1.2	1.3	1.4	1.5	50.0
(Q)	.3	.3	.4	.4	.5	.5	.7	
(Q <sub>1</sub> )	.8	.8	.8	.9	1.0	1.1	1.1	
(Q <sub>3</sub> )	1.3	1.4	1.6	1.7	1.9	2.0	2.4	
Number of Counties	(58)	(58)	(58)	(58)	(58)	(58)	(58)	

\*Excludes corrections spending

## APPENDIX 3

## Criminal Justice Personnel\*

Median, Semi-Interquartile Range (Q), First (Q<sub>1</sub>), and Third (Q<sub>3</sub>) Quartiles

California Counties 1968-1974

	1968	1969	1970	1971	1972	1973	1974	Percent Change
<u>Police Personnel</u> per 100,000 population								
Median	181	192	196	202	208	224	227	25.4
(Q)	24	30	26	27	28	27	29	
(Q <sub>1</sub> )	162	173	180	183	192	196	203	
(Q <sub>3</sub> )	210	233	231	241	247	250	261	
Number of Counties	(56)	(56)	(56)	(56)	(56)	(56)	(56)	
<u>Prosecutor Personnel</u> per 100,000 population								
Median		16	17	17	19	21	22	37.5
(Q)		4	5	4	5	4	3	
(Q <sub>1</sub> )		13	12	14	15	19	20	
(Q <sub>3</sub> )		21	22	22	25	26	26	
Number of Counties		(56)	(48)	(55)	(54)	(57)	(56)	
<u>Superior Court Personnel</u> per 100,000 population								
Median	2.7	2.6	2.7	2.7	2.8	2.9	2.3	3.7
(Q)	1.3	1.6	1.5	1.3	1.2	1.2	1.2	
(Q <sub>1</sub> )	2.0	2.1	2.2	2.3	2.3	2.3	2.2	
(Q <sub>3</sub> )	3.6	3.3	3.1	4.3	4.6	4.6	4.6	
Number of Counties	(55)	(57)	(57)	(57)	(57)	(57)	(57)	

\*Excludes corrections personnel

## APPENDIX 4

Superior Court Means of Conviction  
 Median, Semi-Interquartile Range (Q), First (Q<sub>1</sub>), and Third (Q<sub>3</sub>) Quartiles  
 California Counties 1966-1973

Means of Conviction\*

	1966	1967	1968	1969	1970	1971	1972	1973	Percent Change
<u>Rate of Original Guilty Pleas</u>									
Median	.62	.44	.53	.53	.49	.45	.41	.39	-37.1
(Q)	.10	.07	.11	.07	.13	.13	.13	.14	
(Q <sub>1</sub> )	.50	.42	.42	.36	.33	.30	.27	.21	
(Q <sub>3</sub> )	.70	.56	.64	.63	.59	.56	.52	.49	
Number of Counties	(55)	(27)	(53)	(55)	(55)	(55)	(55)	(55)	
<u>Rate of Changed Guilty Pleas</u>									
Median	.27	.39	.33	.36	.40	.44	.47	.47	74.1
(Q)	.09	.07	.11	.11	.11	.12	.14	.16	
(Q <sub>1</sub> )	.17	.29	.23	.24	.29	.33	.32	.33	
(Q <sub>3</sub> )	.34	.43	.44	.45	.51	.57	.59	.64	
Number of Counties	(51)	(27)	(53)	(54)	(55)	(55)	(55)	(56)	
<u>Rate of Trials in Which Defendant Found Guilty</u>									
Median	.13	.15	.12	.11	.11	.10	.10	.12	-7.7
(Q)	.05	.02	.03	.04	.04	.03	.03	.03	
(Q <sub>1</sub> )	.09	.11	.09	.08	.09	.07	.08	.09	
(Q <sub>3</sub> )	.18	.15	.15	.16	.16	.13	.13	.15	
Number of Counties	(53)	(27)	(53)	(53)	(50)	(54)	(55)	(55)	

\*Expressed as proportion of all convictions

## APPENDIX 5

Superior Court Level of Conviction  
 Median, Semi-Interquartile Range (Q), First (Q<sub>1</sub>), and Third (Q<sub>3</sub>) Quartiles  
 California Counties 1966-1973

	1966	1967	1968	1969	1970	1971	1972	1973	Percent Change
<u>Rate of Felony Sentencing*</u>									
Median	.68	.72	.69	.66	.67	.70	.76	.79	16.2
(Q)	.09	.08	.09	.13	.12	.12	.14	.10	
(Q <sub>1</sub> )	.59	.64	.59	.60	.56	.54	.52	.63	
(Q <sub>3</sub> )	.76	.80	.77	.76	.80	.77	.85	.83	
Number of Counties	(55)	(27)	(54)	(55)	(55)	(55)	(55)	(56)	
<u>Rate of Misdemeanor Sentencing*</u>									
Median	.32	.28	.30	.34	.33	.30	.24	.21	-34.4
(Q)	.09	.08	.09	.12	.12	.12	.14	.08	
(Q <sub>1</sub> )	.22	.19	.23	.23	.20	.22	.15	.17	
(Q <sub>3</sub> )	.40	.35	.40	.46	.43	.45	.43	.33	
Number of Counties	(55)	(27)	(54)	(55)	(55)	(55)	(55)	(56)	

\*Expressed as proportion of all convictions

## APPENDIX 6

## Superior Court Sentencing

Median, Semi-Interquartile Range (Q), First (Q<sub>1</sub>), and Third (Q<sub>3</sub>) Quartiles

California Counties 1966-1973

	1966	1967	1968	1969	1970	1971	1972	1973	Percent Change
<u>Rate of Prison Sentencing*</u>									
Median	.29	.22	.18	.16	.16	.13	.15	.15	-48.3
(Q)	.09	.06	.05	.06	.06	.04	.05	.05	
(Q <sub>1</sub> )	.17	.16	.15	.10	.11	.10	.09	.11	
(Q <sub>3</sub> )	.34	.28	.25	.21	.22	.18	.18	.21	
Number of Counties	(55)	(27)	(53)	(55)	(53)	(53)	(54)	(55)	
<u>Rate of Straight Probation Sentencing*</u>									
Median	.23	.24	.24	.23	.26	.29	.26	.26	13.0
(Q)	.11	.09	.10	.10	.09	.11	.10	.09	
(Q <sub>1</sub> )	.15	.15	.16	.16	.18	.17	.18	.17	
(Q <sub>3</sub> )	.36	.33	.36	.36	.36	.38	.37	.35	
Number of Counties	(54)	(27)	(54)	(54)	(54)	(55)	(55)	(55)	
<u>Rate of Probation with Jail Sentencing*</u>									
Median	.20	.32	.33	.33	.33	.35	.36	.37	85.0
(Q)	.09	.11	.10	.12	.12	.12	.10	.10	
(Q <sub>1</sub> )	.12	.20	.22	.18	.22	.23	.26	.27	
(Q <sub>3</sub> )	.29	.41	.42	.42	.46	.46	.46	.47	
Number of Counties	(54)	(27)	(52)	(55)	(55)	(55)	(55)	(55)	
<u>Rate of Jail Only Sentencing*</u>									
Median	.15	.09	.13	.12	.11	.08	.08	.08	-46.7
(Q)	.06	.04	.04	.07	.06	.05	.05	.04	
(Q <sub>1</sub> )	.10	.06	.07	.06	.05	.06	.04	.04	
(Q <sub>3</sub> )	.22	.14	.19	.19	.17	.16	.14	.12	
Number of Counties	(52)	(27)	(50)	(54)	(53)	(54)	(54)	(52)	

\* Expressed as a proportion of all convictions.

## APPENDIX 7

## Potential and Actual Court Caseload

Median, Semi-Interquartile Range (Q), First (Q<sub>1</sub>), and Third (Q<sub>3</sub>) Quartiles

## California Counties

	1966	1967	1968	1969	1970	1971	1972	1973	1974	Percent Change
<u>Dispositions per Capita</u>										
Median	1.63	1.61	1.75	2.06	2.26	2.52	2.43	2.36		+45.0
(Q)	.42	.28	.45	.64	.43	.68	.55	.57		
(Q <sub>1</sub> )	1.20	1.29	1.43	1.79	1.88	1.85	1.87	1.85		
(Q <sub>3</sub> )	2.17	1.85	2.32	3.06	2.74	3.21	2.97	2.99		
Number of Counties	(45)	(27)	(48)	(48)	(45)	(49)	(50)	(46)		
<u>Police-Prosecutor Resource Imbalance</u>										
Median			9.67	9.31	8.94	9.18	9.02	9.15	9.11	-6.0
(Q)			2.65	2.37	1.67	1.95	1.86	2.02	1.40	
(Q <sub>1</sub> )			7.45	7.69	7.88	7.56	7.46	6.85	7.13	
(Q <sub>3</sub> )			12.74	12.42	11.62	11.46	11.17	10.89	9.93	
Number of Counties			(54)	(54)	(54)	(55)	(55)	(55)	(56)	
<u>Felony Arrest Rate per 100,000</u>										
Median	412.6	442.1	533.8	516.5	721.6	314.0	864.4	903.3	1062.0	157.4
(Q)	62.7	59.5	95.8	126.0	93.1	135.5	169.2	156.2	122.3	
(Q <sub>1</sub> )	334.0	395.7	455.5	529.2	677.7	713.2	723.7	750.7	964.6	
(Q <sub>3</sub> )	459.4	534.3	647.0	781.1	853.8	984.1	1062.1	1063.1	1210.2	
Number of Counties	(27)	(26)	(26)	(27)	(26)	(27)	(28)	(28)	(28)	
<u>Actual Caseload</u>										
Median				13.5	12.9	15.8	12.6	10.7		-21.3
(Q)				5.1	5.9	5.2	4.4	3.6		
(Q <sub>1</sub> )				10.1	9.3	10.6	9.3	3.3		
(Q <sub>3</sub> )				20.2	21.2	21.0	18.5	15.5		
Number of Counties				(47)	(39)	(47)	(47)	(46)		

**END**