SENTENCE LENGTH AND SENTENCE DISPARITY:
AN ANALYSIS AND CLARIFICATION
OF A PROBLEM IN THE
SOCIOLOGY OF LAW

By

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SENTENCE LENGTH AND SENTENCE DISPARITY:

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PREFACE

This study is about inequality in prison sentences handed down by the courts in Oklahoma. It addresses the question of why offenders often receive considerably different sentences for the same or similar offenses. However, this study would not have been possible without the assistance of a number of people, and a debt of gratitude is owed to each.

First, I must thank my adviser, teacher, and friend, Dr. Werner Gruninger. Dr. Gruninger's knowledge in the fields of criminology and penology was a constant source of information and inspiration, and his sense of humor and "le pea soup" were greatly appreciated. I would also like to thank the other members of my dissertation committee. Dr. Gene Acuff served as committee chairman and provided invaluable assistance for the dissertation proposal. Dr. Richard Dodder was always a source of information, and his encouragement and friendship is gratefully acknowledged. Dr. Keith Harries helped considerably through positive criticisms, suggestions, and advice.

I owe a special thanks to Mr. Norman Hess whose efforts in sending us data from the state penitentiary were invaluable. In addition, I would like to thank my typist, Ms. Peggy Scheppele, for her excellent work and "eleventh hour" typing.

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CHAPTER I

INTRODUCTION TO THE PROBLEM OF
SENTENCING DISPARITY

Definition of Disparity

In the administration of criminal justice in the United States, the sentencing of individuals occupies a critical stage in the process. The sentence is the fundamental decision determining how, where, and for how long an offender should be dealt with by the state. At this crucial point, judges generally have a great deal of power over the lives of individuals. Moreover, the individuals have few procedural protections during sentencing which contrast with the detailed protections during arrest and trial. At present, several important problems are evident in our system of sentencing, the most crucial of which is sentencing disparity. Disparity is defined as the imposition of substantially different sentences for the same offense or similar offenses without any apparent legal basis. Disparity is that which cannot be explained by legal factors in sentencing but is influenced by extralegal factors such as the race or sex of the offender (Council of Judges of the National Council on Crime and Delinquency, 1974).

Sentencing procedures in the United States are unique in the world's legal systems. Within various limits set by legislatures, maximum sentences in the United States are among the highest in the world today. A single judge can decide absolutely the minimum period of
time a convicted offender must remain in prison without being subjected to any review of his determination of sentence. In sentencing the offender, the judge ideally must weigh the future of the defendant against responsibility to the law and the community (Johnson, 1978).

Sentencing disparity has become a major focus of criticism leveled at the legal system from all sides. Examples of sentencing disparity abound in the literature and a large number of research studies have attempted to explain the disparities. The President's Commission on Law Enforcement and Administration of Justice (1967) referred to disparity as a pervasive problem in virtually every jurisdiction. The Council of Judges of the National Council on Crime and Delinquency (1974) discussed the chronic problem of disparity which offends our sense of equal justice under the law. Our sense of justice also rebels against sentences that are dependent on the personality of the judge or his particular background and set of biases. Moreover, sentencing disparity violates the axiomatic principles of equal justice under the law and the Fifth and Fourteenth Amendments to the Constitution.

Zumwalt (1973) discussed the anarchy of sentencing in federal courts. Judge Marvin Frankel (1973:8) noted that "the sentencing powers of judges are, in short, so far unconfined that except for frequently monstrous maximum limits, they are effectively subject to no law at all." He insisted that individualized justice allows for the intrusion of discriminatory sentencing and leaves far too much standardless discretion with the sentencing judge. The system impossibly requires all judges to be "uniformly brilliant, sensitive, and humane" (Frankel, 1973:11).
According to Johnson (1978), individualization in sentencing involves treating the offender in terms of his personality, his experience, and the nature of the offense. Sentencing disparities thus reflect the problem of reconciling individualization and uniformity. The goal of uniformity arises from resentment of differences in sentences for similar offense situations. Disparities often justify the resentment of offenders, aggravate disciplinary problems in prison, and undermine rehabilitation programs when claims of individualized sentences "conceal capricious or erratic sentencing decisions" (Johnson, 1978:322).

According to Dawson (1969), sentence disparity presents serious problems in that it is likely to undermine public confidence in the criminal justice system. More importantly, the existence of sentence disparity casts serious doubt upon the ideal of individualized justice because of a lack of consensus on the goals of the criminal justice process, a failure of the judicial members to develop a method of minimizing their differing perspectives on sentencing, and a willingness to give administration convenience a higher priority than the fair dispositions of offenders.

Willard Gaylin (1974) viewed disparity as one of the most glaring and provocative of inequities in a nation identified with fairness. He went on to say that:

Nowhere is inequity likely to be more evident, more costly to the victim, and more infuriating to that group which identifies with him than when there is disparity in sentencing for committing a crime. It suggests a division into privileged and persecuted that is contrary to the fundamental definitions of our democracy. . . (Gaylin, 1974:3).
However, Dawson (1969) pointed out that despite the presence of disparity throughout the system, public attention has focused mainly on sentence disparity which he referred to as the unjustifiable differences in the use of probation and the lengths of prison sentences. Dawson noted that the disparity at the sentencing stage is more visible than it is at various other points in the process. Furthermore, it is easier to gather information on the sentencing of individuals than on the exercise of discretion by the police and prosecutors.

Attempts to Explain Disparity

Various attempts to explain the existence of sentencing disparity are found in the sociological literature. One author, Edward Green (1960;1961) insisted that legally relevant factors such as the seriousness of the offense, the criminal history of the offender, and the number of bills of indictment were the most important factors in determining sentence type and length. This legalistic point of view denies the importance of extralegal factors such as race or various other offender characteristics or the prejudices of the sentencing judges in determining sentence.

On the other hand, various conflict theorists such as Richard Quinney (1970) and Chambliss and Seidman (1971) have attempted to explain disparity within the framework of the conflict perspective in sociology. These authors have suggested that the disparities arise from a host of extralegal factors including demographic characteristics of the offenders, geographical and community factors surrounding the court, and the class differences, biases and prejudices of the judges.
Another author, Hogarth (1971), studied the importance of the personality and background characteristics as well as the ideological and political orientation of judges which entered into their sentencing decisions.

Blumberg (1967) along with Chambliss and Seidman (1971) cited the importance of the bureaucratic and organizational needs of the court system which included the need of speedily processing and handling cases. These bureaucratic and organizational necessities lead to an emphasis of the system over individuals and over any philosophical beliefs concerning fairness or justice. Thus, administrative conveniences such as plea-bargaining and the rewarding of the guilty plea with a lighter sentence have a definite impact on sentencing disparity. The smooth functioning of the system takes precedence over proper and fair sentencing practices.

However, research on both the legalistic and conflict perspectives is, at best, inconclusive. In fact, most research on sentencing disparity remains theoretically ambiguous and researchers have not been able to isolate the crucial variables affecting length of criminal sentences. Until recently, sociological researchers had not consistently worked with both legally relevant and extralegal factors involved in sentencing disparity.

Among sociologists, research has tended to concentrate primarily on extralegal variables about offenders such as race, social class, sex, and age as conceptualized by the conflict theorists. And, as Hagan (1974) illustrated, a great deal of the research has been characterized by poor research designs, lack of control for the legal factors such as seriousness of offense or recidivism of the offender,
and the improper use of statistical tests of significance. The basic questions remain, what are the factors that account for sentencing variation and are both legal and extralegal components involved?

Direction of the Study

The purpose of this research study is to examine length of prison sentences and sentencing variation among prison inmates, drawing from both the legalistic and conflict perspectives and using both legally relevant and extralegal factors, in an attempt to explain sentencing disparity. The basic design of the research involves finding, through correlational analyses, those factors which are most associated with sentence length and then using these variables to explain variation in sentence length with multiple correlation and regression analyses.

The independent variables to be used to explain sentencing variation in this study were divided into four groups: (1) legally relevant variables including seriousness of the offense and criminal recidivism, (2) court organizational and process variables such as the type of plea, the type of attorney, and whether or not the defendant was able to receive bond, (3) offender demographic characteristics including race, sex, age, employment, and marital status, and (4) county ecological variables such as urbanism, crime rate, poverty level, and educational level. These variables were found to be relevant to sentencing in the review of the theoretical and research literature to be presented in Chapter II of this report.

As part of the overall purpose of this research, a conceptual model of the components that make up total sentencing variation will be developed out of the past literature in order to provide a framework
for the understanding of sentencing disparity. The components of the model will include both legally relevant and extralegal factors in incorporating ideas from both the legalistic and the conflict perspectives. The model can then provide both direction and purpose for the explanation of total sentencing variation and the results of the multiple correlation and regression analyses.

Chapter II of this report will be a review of those factors which have previously been found to influence length of sentences. Chapter II will examine the problems of the conflicting goals and philosophies of the criminal justice system and the contributing effects on sentencing variation. Additional to that, the two broad theoretical points of view, the legalistic and the conflict perspectives, will be reviewed for the direction and understanding which they offer. Chapter II will also consist of a critical review of the major efforts in past research on sentence variation.

Chapter III of this report will state the specific goals and purposes of the research as well as the hypotheses to be tested in light of the previous review of the literature. Chapter III will also present the conceptual model of sentencing variation and the components which comprise it. It should be emphasized that this model is not a statistical one made up of expected figures or percentages. Rather, it is a conceptual model which grew out of the review of the literature and offers a framework for the understanding of sentencing disparity.

Chapter IV of this study will review the methodological process and statistical techniques employed in gathering and analyzing the data. Chapter IV will review the variables available for the study of
three cohorts of inmates from the state penitentiary and will detail
the steps taken in the testing of the hypotheses.

Chapter V will present the results of the hypothesis-testing
through the use of correlation and partial correlation techniques.
From the results, the more important variables associated with length
of prison sentence will be used to explain total sentencing variation
in Chapter VI. In addition, Chapter VI will review the results of the
multiple correlation and relate the explained variation in length of
sentence to the conceptual model.

Finally, Chapter VII will summarize and review the results of the
research. Chapter VII will relate the results to other efforts to
understand sentencing disparity and to the theoretical perspectives.
This final chapter will also include a discussion of the shortcomings
of this research, suggestions for future research, and a review of
suggestions to remedy sentencing disparity in light of the results.
CHAPTER II

A SELECTED REVIEW OF THE LITERATURE ON SENTENCING DISPARITY

Conflicting Goals and Philosophies

Any discussion of the problem of sentencing disparity should begin with a recognition of the conflicting goals and philosophies surrounding the purpose of the criminal sentence. While it is often said that sentencing is one of the more important mechanisms by which society attempts to achieve its goals concerning deviant behavior, the fact is that little agreement exists as to what these goals should be. The most often stated goals of sentencing are in fundamental conflict which leads to a built in amount of disparity in sentencing. Each of the several goals for sentencing leads to a different perspective on the type and length of appropriate sentences.

The most commonly stated goals of the sentencing and correctional processes, according to Dershowitz (1977), are retribution and deterrence, restraint, and rehabilitation. Retribution and deterrence rely on the deliberate imposition of punishment with the purpose of producing enough pain so that, ideally, it would serve to discourage future crimes by the specific offender and members of the general population. Restraint or isolation as a goal is an effort to protect the general society by isolating the dangerous offenders in prison systems.
On the other hand, the rehabilitative goal is an attempt to alter the dynamics of the offenders. It seeks to reform the offenders through various programs in education, employment, psychological adjustment and so on (Dershowitz, 1977).

As Hogarth (1971) pointed out, much disagreement exists as to the social purposes the criminal sentence should serve, whether it is punishment, deterrence, isolation, or rehabilitation. Lack of evidence concerning the effectiveness of any of the purposes and lack of uniformity in the use of present knowledge compound the problem. Hogarth noted that it is not surprising that uncertainty, contradiction, and confusion are prevalent among judges in their approach to sentencing. Such contradiction and confusion, according to Hogarth, contribute directly to disparate sentencing practices depending on which goal the judge is working toward. Hogarth found that a judge working toward the rehabilitative ideal would choose a fundamentally different sentence than a judge concerned with punishment and deterrence. Moreover, the same judge may alternate among purposes for sentences with various types of crimes and various individuals.

According to Eisenstein and Jacob (1977), ambivalent expectations and understandings of the public indirectly help to shape the sentencing practices of judges. Due to the divergent goals from retribution to rehabilitation, none of which have won a clear mandate with the public, courtroom personnel are pulled in inconsistent directions by what they feel official sanctions should accomplish. Some court personnel including judges base their actions on one of the philosophical goals while other are guided by a pragmatic although inconsistent combination of several. Courtroom personnel are aware
that very little evidence has been offered concerning the efficacy of
criminal sentences in accomplishing any of the stated goals.

As Miller (1976) pointed out, there is no controlling requirement
that any one of the goals should be followed by the judge. Therefore,
the delegation of power is unchanneled and the judiciary has "the
greatest degree of uncontrolled power over the liberty of human beings
that one can find in the legal system" (Miller, 1976:64).

Dershowitz (1977) noted that all of the purposes of sentencing are
part of an overall objective of reducing the frequency and severity of
crimes and that this goal has remained constant over time. Neverthe­
less, the means of reducing crime, whether through punishment, isola­
tion, deterrence or rehabilitation, have not by any standards been
empirically established.

Sentencing disparity is also built into the criminal justice
system through the use of individualized sentencing. As a philosophy,
individualized justice came into prominence with the popularity of the
rehabilitative ideal and involves sentencing with more than an
appraisal of the crime. As defined by Rubin (1973), individualized
sentencing requires taking into account the circumstances of the
offense along with the character and propensities of the offender.
The offender's past may be taken to indicate his present tendencies
and thus, ideally, should suggest the period of restraint and the kind
of discipline that ought to be imposed. As a result, sentences are
designed to fit the individual and individual circumstances rather than
just the seriousness of the offense. Consequently, disparity in
sentences for similar crimes is evident and, in fact, is encouraged
under the philosophy of individualized justice.
The philosophy of individualized sentencing has been prominent in recent decades. However, it has come under serious attack from those who advocate flat sentencing for a specific offense. Individualization carries with it some fundamental problems related to disparity but specifically in reference to judicial discretion. The philosophy fosters immense discretionary powers among judges while, as Reid (1976) pointed out, there simply is not enough empirical evidence to determine which types of dispositions are most effective when variables from the offender's personality and background are considered. Moreover, serious problems exist in the presentence investigation which is the major source of data available to the judge in his sentencing deliberations. Much inefficiency in obtaining accurate and informative data has been found with regard to the presentence report. Carter (1967) found that probation officers who usually conduct the presentence investigation were not thorough in their data gathering and often based their conclusions on small amounts of information including hearsay and gossip. The offender has no way of defending himself with regard to information in the presentence report to the judge.

As Frankel (1973) observed, the presentence report represents a sudden departure from the fact gathering procedures the court has used up to this point. Due process is suspended and a tendency toward simplistic conventionality and a fundamental hostility toward defendants is found in the presentence investigation reports. The defendant himself is often a primary source of information and any lack of cooperation is mentioned in the report which can act against the defendant. Rubin (1973) noted that a psychiatric examination may be required of the defendant before sentencing.
An outspoken critic of individualized sentencing is Judge Frankel (1973) who pointed out that the more profound problem of excessive judicial power is related to individualized treatment. Frankel insisted that individualized justice leaves far too much standardless discretion with the judges. No guidelines exist in defining or limiting the appropriate amount of discretion. And, in another more fundamental sense, individualized sentencing is in direct conflict with such concepts as equality, objectivity, and consistency in the law.

Thus, given the fact that the social goals of sentencing are in conflict with no one particular goal receiving a clear mandate of either the public or the judiciary, an unknown amount of sentencing disparity is built into the criminal justice system. Judges vary in and among themselves in the goals they may be working toward with a particular sentence. In addition to the problem of conflicting purposes of the criminal sentence, the philosophy of individualized sentencing and the resulting immense discretionary powers of judges also contributes directly to disparate sentencing practices. A problem basic to the fabric of our system of sentencing is that no limitations, restrictions, or even suggested guidelines have been advanced to curb judicial discretion. The problem of defining what is legitimate judicial discretion and what is sentencing disparity plagues research in the field when individualized justice is the norm.

Two Broad Theoretical Perspectives

A review of the literature on sentencing variation and disparity will reveal that a number of hypotheses have been advanced in attempts to explain sentencing variation. Such factors include the demographic
characteristics of the offenders, the legally relevant factors such as seriousness of offense and offender recidivism, the geographical location of the court and the ecological attributes of the location as well as public sentiments in the locale, the characteristics and background of the judges, and various court process factors such as the type of lawyers involved, plea-bargaining, and the bureaucratic and organizational needs of the system.

Essentially, for purposes of this paper, these factors can be divided and placed under either of two major theoretical perspectives for the understanding of sentencing disparity. These two theoretical views, the legalistic and the conflict perspectives, differ more in emphasis on different components affecting sentencing disparity than in substantially different pictures of the sentencing process. These two theories will be examined next.

The Legalistic Perspective

The legalistic point of view is akin to the structural-functional theory in sociology or the consensus model as it is often called. Functionalism rests on the theories of Emile Durkheim and holds that society is a functionally integrated system held together in equilibrium. A functioning social structure is based on a consensus of values and the idea that every element has a function in maintaining the system (Dahrendorf, 1959). Durkheim (1938) wrote that penal law reflected as well as protected the collective sentiments of the society.

Following Durkheim's notion of collective sentiments, the legalistic or consensus perspective assumes that the criminal justice
system operates according to rational principles as defined by law. In addition, law is seen as reflecting the needs of a well-integrated and ordered society as well as a means to improve the social order. Roscoe Pound (1922;1942) most exemplifies the legalistic point of view. Pound wrote that the application of state sanctions reflects the social values and norms of the community.

More recently, Edward Green (1961;1964) has expressed a legalistic point of view specifically in regard to sentencing procedures in the United States. Green (1960) believed that legally sanctioned factors such as the seriousness of the offense and the prior record of the offender were the most influential in determining the severity of sentences and that the decisions of the sentencing judge reflected the operation of rational processes. Green denied the influence of extralegal factors such as the prejudices of the judge regarding offender demographic characteristics. According to Green (1960:437):

> The influence of legal and non-legal factors upon variation in the severity of the sentences offer the reassurance that the deliberations of the sentencing judges are not at the mercy of passions and prejudices but rather mirror the operation of rational processes. The criteria for sentencing recognized by the law, the nature of the offense, and the offender's prior criminal record, make a decisive contribution to the determination of the weight of the penalties; and in applying these criteria, the judges display a sensibility for the relative importance of each. The marked variations in sentences according to sex, age, and race are due to differences in criminal behavior patterns associated with these bio-social variables, not to hidden prejudice.

However, Green went on to point out that substantial variations among judges did exist and that individual differences in social background, personality, and penal philosophy sensitize the various judges differently to cases of a similar kind but Green regarded such
influences as problematic without specific information on these factors for each judge. Nevertheless, Green (1960:437) felt that "whatever proclivities they generate are appreciably checked by the legal criteria."

The Conflict Perspective

The conflict or coercion model of society grew out of the Marxist approach to the study of social life. In this model it is assumed that at every point society is subject to change, and it displays at every point dissensus and conflict. It is based on the coercion of some of its members by others (Dahrendorf, 1959).

According to Quinney (1970:11),

The conflict conception of society leads us to assume that coherence is assured in any social unit by coercion and constraint. In other words, power is the basic characteristic of social organization. Wherever men live together conflict and a struggle for power will be found.

Although there are a number of versions of conflict theory in relation to criminology and criminal justice including Turk (1966; 1969), Chambliss (1969), Chambliss and Seidman (1971), and Quinney (1969; 1970; 1972; 1973; 1975), the major issue, power and its potentially oppressive use in matters of law and criminal justice, receives the pervasive attention of all conflict sociologists. The perspective has generally asserted that the less powerful the group, the more likely will the behaviors be designated as crime and its members designated as criminals receiving the harshest penalties of the system (Chiricos and Waldo, 1975). Chambliss (1969) said that the lower-class person (or that person with little power whether economic or social) is more
likely to be scrutinized, arrested, spend time in jail before trial, and if found guilty, more likely to receive harsh punishment than his middle or upper-class counterpart.

Basically, the conflict theorists assert that the major determinants of sentencing are not the legally relevant variables that Green wrote about, but rather the extralegal factors such as demographic characteristics which identify offenders as members of less powerful groups (the lower-class, the minorities, and the female for example), the organizational needs of the court system, plea-bargaining, geographical and ecological factors surrounding the sentencing court, the biases and personality traits of the judge, and the attorneys involved.

As Chambliss and Seidman (1971) put it, a wide variety of inputs enter the sentencing process including information concerning the offense, information concerning the offender, pressures stemming from the public as well as the police and prosecutors, the training and values of the sentencing judge, the abilities of the defense attorney, and the personal relationships between the counsel and the court. Referring to the differences in background between most judges and most offenders as well as the differences in power, Chambliss and Seidman (1971:462-63) ask:

What are the consequences of permitting basically middle-class judges, socialized into a profession in which most of its functions serves a middle-class clientele, working in a bureaucratic framework where efficiency and smooth functioning are seen as critically important and where informed cooperation with other bureaucrats (e.g., prosecutors and police officers) are essential to efficient functioning, to have unfettered discretion in the sentencing of criminals who are mainly from the poor and minority groups?
Most of the conflict theorists have also paid attention to the bureaucratic structure of the courts and have pointed out that this structure has a definite bearing on sentencing disparity. For example, Chambliss and Seidman (1971) wrote that the demand for the orderly and smooth performance of the court takes priority over any individuals and creates a propensity to handle cases in ways that insure the continued efficient functioning of the system. The consequences of such action, according to the authors, is the selection of the poor and the black (the less powerful) for the most severe treatment. The organizational requirements have a greater influence on judicial decisions than any legal blueprint for such decisions. Blumberg (1967) presented a similar point of view as he noted that organizational goals and discipline impose a set of demands and practices on the professionals of the criminal court who, in response, abandon their ideological and professional commitments to equal justice under the law in the service of the higher claims of the court organization. The defendant is a secondary figure in the court system.

Conflict sociologists have also paid considerable attention to the supposedly discriminatory, although organizationally effective, nature of plea-bargaining and the practice of handing out less severe sentences for those who plead guilty. According to Chambliss and Seidman (1971), a number of reasons exist as to why courts and prosecutors look with favor on guilty pleas. They all come down to the fact that the courts can operate more efficiently, more smoothly, and with less strain if the majority of the offenders plead guilty. Courts would come to a standstill if all defendants insisted on court trials.
Quinney (1969) noted that in the course of their negotiations, prosecution and defense attorneys develop unstated guides, outside the penal code, for the reduction of original charges to lesser charges. Chambliss and Seidman (1971) stated that the guilty plea results from bargaining power to receive the lightest possible sentence and the benefit to the accused will depend on his bargaining position and power. Thus, the strength in bargaining position is based upon the defendant's ability to hire counsel and upon his general knowledge of his legal rights. Such practices benefit those in the middle and upper-classes as well as professional criminals. The less-educated and informed, the poor, and the minorities receive the brunt of bargain justice according to Chambliss and Seidman.

Quinney (1970), like Chambliss and Seidman (1971), conceded that sentencing decisions are probably made within the framework of the law including the factors of seriousness of offense and prior criminal record. Yet Quinney wrote that within the legal framework much opportunity exists for decisions to be made according to extralegal characteristics such as the social organization of the courts, the activities of the attorneys, and the cues provided by the defendant. The margin for discrimination exists in the absence of legal norms prescribing which factors are significant in sentencing and what weight they are to be given.

Essentially, then, the two broad perspectives differ in matters of emphasis while each recognizes the emphasis of the other. For example, Green conceded that much disparity does exist among judges but emphasized the rational and legal framework within which sentencing takes place. Green places his emphasis on the legal factors in
sentencing decisions. On the other hand, the conflict theorists recognize the fact that sentencing decisions do take place within the framework of the law but emphasize that the framework allows for the intrusion of extralegal factors. The legalistic point of view stresses the importance of legal factors such as the seriousness of the offense and the criminal history of the offender. The conflict perspective stresses the extralegal variables ranging from characteristics of the courts to characteristics of the offenders and the bargaining nature of criminal justice in the United States.

Both perspectives offer insight into the problem of sentencing disparity and ideas from each will be incorporated into this research. However, before turning to the research, a review of previous empirical attempts to understand sentencing variation is necessary to assess the major factors in sentencing decisions. The next section of this chapter will review research studies which have dealt with disparities. This review of the research literature will look at the studies chronologically and will attempt to relate the shortcomings of each study.

A Review of Research Studies on Sentencing Variation

Thorstein Sellin (1928) was one of the first researchers to introduce the topic of discrimination in sentencing according to extralegal factors. Sellin researched police statistics on case dispositions in the Recorders Court of Detroit and found that black defendants received more severe sentences than whites. For example, the black defendants received a smaller percentage of probated
sentences than white defendants. However, Sellin did not include data on racial differences in seriousness of crimes committed or on recidivism rates for the two races although he did mention the possibility of such factors influencing the results.

In a later study, Sellin (1935) investigated differences among foreign born whites, native born whites, and blacks in the length of prison sentences for ten offenses in the United States. For those states having determinate sentences, blacks received longer sentences, on the average, in only three out of ten offense categories. For the states having indeterminate sentences, blacks received longer minimum sentences (except for homicide) and longer maximum sentences (except for burglary and assault). Once again, Sellin did not investigate the criminal history of the offender.

Roscoe Martin's (1934) research on the relationship between the social traits of the defendant and the outcome of the various stages of the criminal justice system was based upon a 10% sample of the felony cases disposed in the Texas district courts in the year 1930. Basically, Martin's study showed blacks, Mexicans, and foreign born whites at a disadvantage in relation to native born white Texans. In addition, Martin found that the married defendants were favored over the single, the widowed over the divorced, the property owners over the propertyless, the taxpayers over the tax delinquent. Variables having little or no effect on the severity of the sentence were sex, age, and amount of education. However Martin's research can be questioned because he did not control for the seriousness of the offense. It could be that the defendants in the lower status groups were charged with a greater proportion of serious crimes, thus, their
sentences would logically be more severe. Moreover, Martin used no statistical tests of significance or measures of association.

Perhaps some of the most widely cited studies on sentencing were conducted by Frederick Gaudet with G. S. Harris and C. W. St. John (1933;1934). Gaudet studied the sentencing practices of six criminal court judges in New Jersey. Over 7000 criminal cases were reviewed over a decade. The results of the study led the researchers to conclude that the criteria for sentences were capriciously applied and that the personality of the judge was a primary determinant of his sentencing decisions. However, Gaudet's research has been criticized (see Green, 1961:19) for not adequately controlling for legally relevant factors such as the seriousness of the crime, the number or bills of indictment, and the prior record of the offender. It is interesting to note that a similar study conducted in the same New Jersey courts by Frankel (1940) found few differences in judges in sentencing delinquents.

McGuire and Holtzoff (1940) studied disparities among federal judges in sentencing narcotic and liquor violations. They cited considerable variation in liquor cases where the sentences ranged from 40 to 850 days. For narcotic offenses, the length of sentences ranged from 30 to 3408 days. The variations in probation of sentences were also found to be considerably disparate. The researchers concluded that such results were due to the differing attitudes, personalities, and backgrounds among the federal judges.

Harold Lane (1941) reviewed the records of 1660 criminals within the Massachusetts state prisons. Lane concluded that approximately 20% of the inmates had received sentences which were indefensible by legal criteria. Lane cited numerous examples of disparity in the case
studies where short sentences were imposed on habitual offenders and relatively long sentences were imposed on first offenders. Lane's method was primarily the case study and he did not include statistical analyses of the data.

In a study of Lemert and Rosberg (1948) investigating the differences in sentences for whites, blacks, and Mexican-Americans in the Superior Court of Los Angeles County for the year 1938, the researchers found that whites received considerably lighter sentences than the other two groups. Lemert and Rosberg considered five offense categories but did not control for prior record of the accused. As another part of the study, the researchers controlled for recidivism in rape cases and the differences between the groups were not statistically significant.

Garfinkel (1949) studied 821 homicides in ten North Carolina counties between 1930 and 1940 showing that none of the whites killing blacks received the death penalty while 37% of the blacks killing whites received death and 10% received life imprisonment. Garfinkel found that blacks who killed whites were four times more likely to be convicted of first degree murder than whites who murdered whites and ten times more likely than blacks who murdered blacks. However, Garfinkel used no tests of significance or measures of association and he did not control for prior record of the offenders. In his analyses on Garfinkel's data, Hagan (1974) found a very small association (tau_b of .015) between race and conviction of first degree murder.

Henry Bullock (1961) also studied the influence of the racial factor in length of prison sentence. However, Bullock attempted to clarify the relationship by introducing other variables such as type of
offense, number of previous felonies, and the nature of the plea. Bullock utilized information on 3644 white and black inmates in the Texas State Penitentiary who had been convicted for burglary, rape, and murder. Bullock dichotomized length of sentence into "short" (less than ten years) and "long" (more than ten years).

Bullock found that variation in length of sentence with type of offense indicated a statistically significant relationship. However, the number of previous felonies was not significant but the type of plea and the degree of urbanization of the sentencing county, both extralegal variables, were statistically significant in relation to length of sentence. Prisoners who had pleaded not guilty and who were from counties having large cities tended to get long sentences in greater proportion.

In controlling for the legal factors (type of offense and prior record), Bullock (1961) pointed out that the association between race and length of sentence increased in degree, changed direction, and strengthened in validity. However, Bullock pointed out that the total coefficient was low and that in the offense categories of intra-racial murder and rape among blacks, the length of sentence tended to be shorter than for whites. Bullock attributed this to the local norms in Texas which tolerated a less rigorous and more indulgent pattern of morality and law enforcement in the black communities. However, blacks tended to receive longer sentences for burglary as well as longer sentences after pleading guilty in greater proportion than did whites.

Bullock's research falls short in a number of ways. First, the use of length of sentence, a continuous variable, was dichotomized when investigating the relationship between race and sentence. As Hagan
(1974) noted, the confusion between a statistically significant relationship and a substantive relationship is prevalent in Bullock's work. For example, Bullock concluded that blacks tended to receive longer sentences for burglary cases. Hagan's (1974) calculation of a tau_b equal to .01 illustrates the magnitude of the statistically significant relationship in Bullock's data.

Wolfgang, Kelly, and Nolde (1962) studied the case records of 439 persons sentenced to death for first degree murder in Pennsylvania in order to gauge the influence of social characteristics in the commutation of sentence and type of murder (felony versus non-felony), age, race, nativity (foreign versus native born), and type of attorney. The researchers found that the polar ends of the age groups were most likely to receive commuted sentences (15-19 and over 55). Whites and native born offenders were more likely to receive commuted sentences. Those who had private counsel as opposed to public defenders were more likely to receive commuted sentences. No significant relationships were found regarding occupation and marital status.

Once again, the researchers can be criticized for not effectively controlling for other relevant variables. For example, they did not calculate the relationship between race and sentence while controlling for type of attorney. Moreover, the researchers used no measures of association other than chi-square.

Edward Green (1960;1961;1964) was among the first to challenge the assumption that extralegal factors such as those investigated by the previous researchers were influential in sentence length. Data for Green's studies were taken from the records of 1437 convictions of a non-jury prison court of the Philadelphia Court of Quarter Sessions in
cases tried during the years of 1956 and 1957. The dependent variable, severity of sentence, was classified into imprisonment, probation, fine and suspended sentence. Imprisonment was then divided into 12 months or more, 3 to 11\(\frac{1}{2}\) months, or under 3 months. Green used only the minimum sentence in cases of indeterminate sentencing. Green included a variety of offenses including both felonies and misdemeanors. Three sets of independent variables were considered: legal factors including type of crime, number of bills of indictment, and prior criminal record, legally irrelevant factors including age, race, and place of birth, and factors in the criminal prosecution concerning the judge, the prosecuting attorney and the type of plea (Green, 1960).

Green (1960) found that, in regard to length of penitentiary sentences, the seriousness of the offense along with the number of bills of indictment exerted the most influence. With regard to type of sentence, the number of prior convicted felonies showed the greatest association with severity. However, prior criminal record had a negligible influence on length of penitentiary sentences which Green interpreted to mean that, in such cases warranting a prison sentence, the seriousness of the offense overshadowed any concern with prior record.

Of the extralegal variables considered, none were significant when offense was controlled. Green did not include other extralegal variables such as social class or education of the offender. Green found that type of plea had no significant influence on severity of sentence except in cases of crimes against personal property. He also found no significant differences in sentences with regard to the
various prosecutors involved in processing the cases. He did not study differences between private and public defense counsel.

In a more detailed study concerning the extralegal variable of race, Green (1964) found no warrant for the charge of racial discrimination in sentencing. In this detailed study of robbery and burglary cases only, variation in sentence severity did exist between whites and blacks but Green found that it was a function of intrinsic differences between the races in patterns of criminal behavior.

Green (1960) noted that considerable differences in severity of sentences did exist among the various judges and speculated that varying philosophies, backgrounds, and personalities might influence their decisions. However, he felt that such situational factors were problematic without any data on them. He concluded by saying that the legal factors in sentencing were the most influential.

In contrast to Green's research, other studies have pointed to the influence of extralegal factors in sentencing disparity, although each study can be questioned on methodological grounds. Jacob (1963) controlled for type of crime and found that blacks received proportionately harsher sentences in New Orleans. Partington (1965) found that in Virginia from 1908 to 1960, 41 men had been executed for rape and all were black. However, in Hagan's (1974) calculations on Partington's data, it was found that very small, though statistically significant, associations existed between race and severity of sentence.

Rubin (1966) utilized information from Florida, Georgia, and New York and found that blacks were more likely to be convicted and executed for rape than were whites. However, Rubin included no tests of significance or measures of association.
Hugo Bedau (1964;1965) attempted to relate the final disposition of death sentences in New Jersey (from 1907 to 1960) and in Oregon (from 1903 to 1964) to the defendant's occupation. Bedau classified occupations according to the broad census categories which ranged from professional to laborer. Bedau concluded, in both studies, that those classified as laborers were sentenced to die more frequently than their percentage of the population warranted. For example, in Oregon Bedau (1965) found that 13.1% of adult males were laborers while 36.9% of those receiving the death sentence were laborers. However, Bedau did not consider the possibility of a higher crime rate for laborers or that they perhaps committed more serious crimes than other segments of the population. Hagan (1974) found very low but statistically significant associations between occupation and death sentences. Bedau also used sex, race, and age as determinants of execution and, in each case, no substantive association was found.

In a study of 238 murder cases sentenced by jury in California, Judson, Pandell, Owens, McIntosh, and Matchullat (1969) found statistically significant relationships for age, sex, occupation, and race with execution. The researchers did control for prior record and characteristics of the offense. The researchers concluded that juries tended to impose harsher sentences on those of blue-collar occupations, blacks, and males. However, Hagan (1974), in calculations of this data, found consistently small relationships for the offender's social characteristics and severity of sentence.

In his comprehensive study of the legal system, Stuart Nagel (1969) examined the sentences in a sample of 1,949 state cases and 981 federal cases of larceny and assault in 194 counties in all fifty
states. Only two offenses were used in order to hold crime constant. Nagel investigated the effects of offender characteristics of economic class (indigent versus non-indigent as indicated by the use of a private or court-appointed defender), sex, and education (those having less than eight years and those having one or more years of high school). The dependent variable, sentence, was divided into prison term versus suspended or probated sentences. In addition, prison sentence was divided into short (one year and less) and long (more than one year) terms. Nagel also investigated such variables as urbanism of the sentencing county, the characteristics of the lawyers, and race of the offender.

Nagel (1969) found that definite disparity existed with regard to the economic class of the offender. It appeared that class-biased attitudes were possibly present among judicial personnel in recommending or granting probation or suspended sentences. Educational level of the offenders also appeared to influence the severity of sentence.

According to Nagel (1969) the urban courts were more likely to imprison a defendant convicted of assault than rural courts, while rural courts were more likely to imprison a defendant convicted of larceny than urban courts.

When comparing the characteristics of the opposing lawyers in criminal cases (the data here were from appellate courts), Nagel (1969) found relatively small correlations between courtroom results and such factors as the lawyer's firm membership, education degrees, experience, and age. He concluded that such lawyer characteristics were not very potent for predicting courtroom results.
Basically, Nagel (1969) found relatively small correlation coefficients between the sentence variables and offender characteristics with offense and prior record constant. For example, Nagel found a correlation of .19 between being indigent and prison versus non-prison sentence and this was among the highest correlations. The younger and the female offenders tended to receive slightly lighter sentences but received fewer procedural safeguards which to Nagel indicated a more paternalistic attitude toward those offenders.

Several problems exist in Nagel's research. First, he limited the data to two offenses which perhaps did not adequately indicate the larger problem of disparity. Also, the dependent variable length of sentence was categorized instead of being used as a continuous variable. He also categorized amount of education and number of prior convictions.

Taking another point of view on the sentencing disparity problem, John Hogarth (1971) studied the sentencing behavior of magistrates in Ontario, Canada. By looking at the judge rather than the characteristics of the defendants, Hogarth was able to present another side to the sentencing process. Hogarth contended that we cannot understand judicial sentencing without understanding the total environment of the sentencing judge and how he defines that environment. As Hogarth pointed out, all of the magistrates felt that one purpose of sentencing was to prevent crime. They rated punishment philosophies in the following general order of importance: rehabilitation, general deterrence, individual deterrence, incapacitation, and punishment. However, there were differences among the judges in the relative merits of each of these goals and in the principles of sentencing. Although
the judges differed among each other in their reasons for deciding differences in sentences, they were generally consistent within themselves.

By the use of a factor analytic scale, Hogarth (1971) found significant relationships between magistrates' attitudes in sentencing philosophies and their sentences. For example, judges showing a high concern for social defense tended to give more prison sentences.

Hogarth (1971) also found that the magistrates' social and economic backgrounds affected their sentences. Magistrates from a professional background were more treatment oriented. The number of years the magistrate spent in education was of little significance but the type of education was. Law-trained judges were less punitive in their sentences, tended to consider a wider range of variables in assessing offenses and sentences, and showed a greater flexibility than those judges who had no legal educational background. On the other hand, lay-trained judges were much more legalistic in their interpretations.

Hogarth (1971) also found that a magistrate's workload affected his sentencing. The greater the workload, the more negative were the judge's attitudes toward other colleagues and professionals. Moreover, the judge with a heavy backlog of cases tended to have an expedient and rigid approach to his work and was more likely to engage in punitive behavior. He was more likely to hand out institutional sentences.

Hogarth (1971) pointed out that magistrates were found to reflect the types of communities in which they lived. Those with attitudes that sentencing should punish offenders were more likely to be found in communities that were characterized by a high degree of organization, a high crime rate, and a highly mixed ethnic composition. In fact, the
most important demographic characteristic which distinguished
magistrates in terms of attitudes and beliefs was the degree of urban-
ization of the community in which they lived. On the whole, urban
magistrates were considerably more punitive than were small town and
rural magistrates. In fact, the most punitive judges were found to be
young, well-educated urban judges while the least punitive were young,
well-educated, rural judges. However, Hogarth noted that some judges
can successfully isolate themselves against the influences of the
community environment. The small minority of those urban judges who
were not punitive tended to read considerably, attend meetings and
conferences, and make efforts to remain up to date on information on
sentencing.

Finally, Hogarth (1971:382) insisted that sentencing was "a very
human process". The model which finally emerged from his research was
one that:

viewed sentencing as a dynamic process in which the
facts of the cases, the constraints arising out of
the law and the social system, and other features
of the external world are interpreted, assimilated,
and made sense of in ways compatible with the
attitudes of the magistrates concerned. (Hogarth,
1971:382).

Since Hogarth's research took place in Canada, it is difficult to
say how it applies to sentencing in the United States although there is
no doubt that the two countries have similar styles of criminal
justice systems. However, Hogarth's only focus was on the magistrate
which remains only a partial picture of the sentencing process when one
considers the impact of the lawyers, courtroom personnel, plea-bargain-
ing, the cues provided by the defendant, and so on. Nevertheless,
Hogarth's work offers considerable insight into the effects of judges'
backgrounds and personalities as well as the effects of the communities in which the sentencing takes place.

Partridge and Eldridge (1974) conducted an experiment with the fifty federal judges of the second circuit courts in New York, Connecticut, and Vermont. The researchers sent thirty presentence reports to each of the judges for hypothetical sentencing and found that no patterns were evident in explaining the considerable variation in sentence severity. In fact, for 16 of the 20 representative cases, the judges did not even agree on whether any incarceration was necessary, and among the judges, large differences in sentence lengths were imposed for the same case. The researchers concluded that the experiment was a fairly good indicator of what goes on in sentencing in that very few judges were consistently more or less punitive.

Harries and Lura (1974) studied federal criminal convictions for 1970 and found that severity of sentence was related to geographic regions of the United States. The researchers divided the country into three regions according to severity of sentence and use of probation.

The researchers went on to examine both legally relevant and legally irrelevant variables in sentencing decisions with the hypothesis that only legally relevant variables would affect the type and severity of sentences. The legally relevant variables included prior police and prison record of the offender, distribution of offense (seriousness of crimes), and presentence and special reports on the defendants. The authors hypothesized that the use of presentence reports would tend to lower overall sentence severity but offered no documentation for such an effect.
The extralegal variables included were characteristics of the judges (political affiliation, regional background, and age) and court procedural factors including percentage who pleaded guilty, percentage tried by jury or court, median time to disposition of case, and percentage assigned counsel.

Using regression analysis, the sentence variables were related to the legally relevant and irrelevant factors. The authors found the prior prison record of the offender was the most significant legal variable. The more influential legally irrelevant variables were jury trial, median time before trial, and assigned counsel. Harries and Lura (1974) stated that these variables accounted for statistically significant amounts of variation but no numbers were presented. The researchers pointed out that characteristics of judges added virtually no explanation to sentencing variation and speculated that such aggregate data on judicial characteristics were too generalized.

Pope (1975) studied the sentencing of California felony offenders for twelve counties using sex, race, age, and urbanism in explaining types and lengths of sentences. The criminal background of the offenders was included as a legal variable. The relationships between the variables showed that females tended to receive less severe sentences although the relationships disappeared when recidivism was controlled. Age was relatively insignificant except that the younger defendants fared better at the municipal court level. Rural California courts tended to sentence blacks more severely and females less severely than urban courts.

In one of the more recent publications on sentencing disparity, Chiricos and Waldo (1975) investigated the relationship between the
defendant's socioeconomic status and length of sentence based on information derived from admission summaries provided by the adult correctional agencies in North Carolina, South Carolina, and Florida. The sample was made up of all felon inmates received by the prison systems during various time periods (varying from state to state) from 1968 to 1973. A total of 10,488 inmates who were sentenced for seventeen specific criminal offenses made up the sample. Each inmate's social class was measured with techniques developed by Nam and Powers and the U.S. Bureau of the Census. A number of other variables in addition to social class were utilized in the research including race, age, and the rural or urban nature of the sentencing county.

The specific purpose of the research was to test propositions from Chambliss and Seidman (1971) regarding discrimination in sentencing according to social class. Chiricos and Waldo used length of prison sentence as a continuous variable but did not include death penalties and the data included very few life sentences.

The researchers felt that, with the results of their analyses, they had demonstrated rather conclusively that the social class status of convicted offenders was unrelated to the severity of the state's official sanction as mirrored in the length of prison sentences handed down by the courts. According to the authors, this result was given added reliability in that it was found to be true for a total of seventeen different criminal offenses and for three separate states. "In fact, of a total of 185 zero-order correlations computed between SES and sentence length, only one was statistically significant in the direction hypothesized by the conflict perspective" (Chiricos and Waldo, 1975:768). Moreover, the researchers found that, for Florida,
their conclusions were sustained regardless of the age, number of prior
arrests, felony convictions or juvenile commitments of the defendants
and regardless of the urban or rural nature of the sentencing county.
The results of a multiple correlation analysis showed that only a
minimal amount of the variation in length of prison sentence for any of
the crime categories was explained using their variables included in
this study.

Chiricos and Waldo (1975) recognized a problem in their research
which calls into question their conclusions about social class. The
distribution of inmates' social class status was skewed heavily toward
the lower end of the status scale as only 3.4% of the inmates had scores
higher than 70 on a 100 point scale. Consequently, it is questionable
whether or not social class varied enough within the sample in order to
establish a relationship between status and length of sentence.

Another recent research report and one that dealt with sentencing
in Oklahoma was presented by Kelly (1976) who studied the influences of
defense strategy and race on sentence lengths for two offenses, burglary
and homicide. Two variables were used to measure defense strategy and
they were type of plea and type of attorney. Kelly also included the
demographic variables of age, marital status, rural-urban childhood,
and education. The legal variable of prior record was measured by the
number of prior juvenile and adult convictions.

Using multiple regression, Kelly (1976) found, for the burglary
offenders, that type of plea explained the most variation while type of
attorney was not significant. Being black was significantly related to
sentence length but the other ethnic groups (Mexican-American and
Indian) were not. Kelly was able to explain 22% of the variation
using all the independent variables. Thus, the variables other than plea added only 4% to the explanation.

For the homicide offenses, Kelly found that plea was not significantly related to sentence although type of attorney was. Of the ethnic groups, being Indian was slightly related to sentence length. Type of attorney and being Indian each explained about 3% of the variation while all of the variables together accounted for 9% of the variation in sentence length for homicide offenses.

Kelly can be criticized for not controlling for recidivism and for not considering other legally relevant variables. In addition, Kelly confined the research to only two offense categories.

Another of the most recent studies on sentencing was conducted by Eisenstein and Jacob (1977). In an in-depth study of criminal court activities in Chicago, Detroit, and Baltimore, Eisenstein and Jacob presented a somewhat different picture of the factors influencing sentencing decisions. With regard to plea-bargaining the researchers reported that most court personnel believed that guilty pleas were rewarded with lighter sentences while jury trials resulted in heavier sentences. Many judges in the three cities defended their plea-bargaining by insisting that a penitent attitude through a guilty plea by a defendant was the first step in rehabilitation and should be rewarded. Other judges indicated they wanted to promote guilty pleas by giving lighter sentences in order to avoid an increase in expense and court time which occurred in jury trials. The researchers did find that mean sentences were significantly longer for jury trials than for guilty pleas. However, when other factors were controlled such as offense, strength of evidence, and defendant's personal character, the
disposition mode of guilty pleas versus trial accounted for a very small amount of the explained variation in length of prison sentence. When these variables were controlled, the disposition mode accounted for 3.3% of the variation in sentence length in Baltimore and 7.2% in Chicago.

Other factors investigated by the authors included the identity of the courtroom referring primarily to the judge and court workgroups, the original offense, disposition mode, strength of evidence, and characteristics of the defendant. The most important variable in all three cities was the original offense charged of the defendant. The researchers stated that most of the demographic characteristics of defendants (race, social class, and prior criminal record) were relatively unimportant in determining sentence length. In addition, only in Baltimore did the kind of attorney (whether public or private) have any influence on sentence length. In Detroit, pretrial release on bail made a small difference in sentence length. Surprisingly, public defenders' clients generally received shorter sentences but the conviction rate for public defenders was slightly higher than that of the private attorneys. In all, the variables mentioned accounted for 50% of the variation in sentence length in Detroit and 66% of the variation in Baltimore and Chicago (Eisenstein and Jacob, 1977).

The authors pointed out that sentences were sometimes used symbolically reward defense attorneys and prosecutors. For example, when an offender received an unusually light sentence, it was chalked up as a victory for the defense and a reward for the judge. On the other hand, unusually heavy sentences were seen as a reward for the prosecutor; however, the length of such sentences rarely played a major
role in the prosecutor's evaluation by supervisors or in his promotion. Rather, it was seen as judicial appreciation of a job well done.

Interestingly, the researchers observed that some additional variation could possibly be explained by what they referred to as the queuing effect. They pointed out that a defendant was not sentenced in a temporal vacuum. Consequently, an armed robber sentenced after a series of murderers might fare better than if he had come up after a series of less serious offenders. The researchers did not have systematic evidence of the queuing effect but noticed it in their courtroom observations (Eisenstein and Jacob, 1977).

Summary and Conclusions

The foregoing review of the research literature on sentencing variation is indicative of a number of problems in the area. Much confusion and contradiction is apparent in the results of the studies. In addition, the research in general is characterized by shoddy research designs and the improper use and interpretation of statistics. And, the implications of the research for the theoretical points of view are not clear. Therefore, this section of the chapter will attempt to review and clarify these problems before turning to the purpose of this research.

In regard to the legalistic hypothesis that legally relevant variables account for a substantial amount of sentencing variation, several researchers (Green, 1960; Harries and Lura, 1974; Chiricos and Waldo, 1975; Eisenstein and Jacob, 1977) found support for some of the legally relevant variables. In addition, Hagan (1974) found that, for many studies which had claimed relationships between sentences and
extralegal variables, many of the results were due to legal variables which were not controlled. However, for the legally relevant variable of prior criminal record, Green (1960) found that it was not important to length of prison sentence but was important in type of sentence. Harries and Lura (1974) and Chiricos and Waldo (1975) also found prior criminal record to be significantly related to sentence. But Bullock (1961) did not find recidivism to be related to length of sentence.

Thus, there seems to be some support for the legalistic point of view. On the other hand, much of the research in the area seemed to focus on the extralegal variables. Many of the early studies (Sellin, 1928, 1935; Martin, 1934; Lemert and Rosberg, 1948; Garfinkel, 1949; Bullock, 1961; Wolfgang, Kelly, and Nolde, 1962; Jacob, 1963; and Partington, 1965) concentrated on offender characteristics, race in particular. These early studies are questionable on methodological grounds as Hagan (1974) illustrated and on the grounds that they did not control for the legally relevant variables. Of the later studies, the significance of the extralegal variables finds contradictory results. Chiricos and Waldo (1975) found little or no evidence for the influence of social class and other extralegal variables. On the other hand, Nagel (1969) found education and indigency to be related to sentence. Harries and Lura (1974) found jury trial, median time before trial, and assigned counsel to be important. Eisenstein and Jacob (1977) and Bullock (1961) found that type of plea was important in sentence length. Hogarth (1971) found that various judge-related variables were significant as well as the community characteristics surrounding the courts.
Consequently, the results are mixed concerning the impact of extralegal variables as hypothesized by the conflict theorists. However, evidence can be found in the research studies, particularly with reference to the extralegal variables, that have to do with court process. The evidence is less certain with regard to offender demographic variables. In any case, it seems that the legalistic and the conflict perspective both received support in the research literature yet neither one can be elevated over the other in importance in explaining sentencing variation.

As mentioned previously, much of the previous research is characterized by the inadequate use of statistics and faulty interpretations of statistical relationships. Much of the previous research was confined to capital crime and the death sentence rather than length of sentence in general. Another limitation of the previous research is the narrow or undefined scope of offenses used. For example, in Nagel's (1969) study only two offenses are used. Chiricos and Waldo (1975) used the most comprehensive list of offenses but limited their study primarily to the influence of social class. Many of the other studies also did not include a wide range of variables representing both legally relevant and legally irrelevant variables.

Thus, in summary, the review of the literature indicated that a wide variety of factors enter into sentencing variation. At the beginning of this chapter, it was pointed out that conflicting goals and philosophies which haphazardly influence the criminal justice system have a definite bearing on sentencing disparity. The theoretical perspectives reviewed differed in emphasis in that the legalistic point of view stresses the importance of legally relevant variables
while the conflict perspective stresses the importance of the extra-legal variables in determining sentencing practices in our criminal courts. The review of the research literature indicated that both perspectives are partially correct in assessing sentencing variation. The literature review also indicated that much more research is needed if a fuller understanding of sentencing disparity is to be found.

The next chapter of this report presents the purpose and direction as well as the hypotheses for this research in light of the theoretical points of view and the previous research discussed above.
CHAPTER III

PURPOSE AND DIRECTION

Considering the limitations and problems of the prior research on sentencing disparity discussed in Chapter II, it is evident that much more research is needed. Many of the previous studies concentrated on only one facet of sentencing such as the relationship of offenders' socioeconomic status and length of prison sentence (Chiricos and Waldo, 1975). Many of the early studies did not adequately allow for the impact of the legally relevant variables. Consequently, the purpose of this research is to examine variation in length of prison sentences using a wider selection of independent variables. Drawing from both theoretical perspectives and using both legally relevant and extralegal variables, it is hoped that a more basic understanding of the factors influencing sentencing variation will be offered. The basic design of the research involves finding, through correlational analyses, those factors which are most associated with sentence length and then using those variables to explain variation in sentence length with multiple correlation and regression analyses. A conceptual model of the components that make up total sentencing variation will be devised as a framework for the understanding of sentencing disparity in length of prison sentences. This chapter delineates the hypotheses to be tested in the correlational analyses and the model of sentencing variation which will guide the research.
The first hypothesis developed out of the assertions of the legal-istic perspective which points to the importance of legally relevant variables. Following Green (1960), Chiricos and Waldo (1975), and Eisenstein and Jacob (1977), the seriousness of the offense committed appeared to be of considerable importance in relation to length of sentence. Consequently, in this research, seriousness of offense will be considered a variable of major importance and a wide range of offenses will be included rather than just a few specific ones.

The second hypothesis also developed out of the assertions of the legalistic point of view that prior criminal record of the offender has an important association with sentences. Although Green (1960) and Bullock (1961), and Eisenstein and Jacob (1977) did not find a significant relationship between length of prison sentence and recidivism, other researchers including Harries and Lura (1974) and Chiricos and Waldo (1975) along with Nagel (1969) found recidivism to be important in their research. However, the research seems to indicate that prior criminal record is influential in type of sentence, whether probation or fine or sentence to prison, but is not very influential in length of prison sentence. Nevertheless, recidivism will be included as a variable in this research as a further test of its importance. In addition, recidivism will also be important as a control variable when looking at the association of the extralegal variables and length of sentence. The association of recidivism and length of sentence will be observed while controlling for seriousness of offense in order to rule out any confounding effects. That is, if seriousness of offense was not controlled then any association between recidivism and sentence
might be due to an association between seriousness of offense and recidivism.

The third major hypothesis grew out of the conflict perspective and the assumptions that various court process variables have an effect on length of sentence. According to Chambliss and Seidman (1971) and Quinney (1969), various factors in the bureaucratic administration of criminal justice impinge on the sentencing practices of judges. Some support for this point of view was found in the research of Eisenstein and Jacob (1977) who found an important relationship between type of plea and sentence. Harries and Lura (1974) also found that having a jury trial was related to more severe sentences. Another court process variable, type of attorney, has received mixed support as a variable related to sentence. Wolfgang, Kelly, and Nolde (1962) as well as Harries and Lura (1974) found that assigned counsel was related to severity of sentences while Eisenstein and Jacob (1977) only found a small association between length of sentence and type of attorney in one of the three cities in their research. Another court process variable, ability to receive bail, received some support in Eisenstein and Jacob (1977) in one of their three cities studied. For purposes of this research, the court process variables of type of plea, type of attorney, and bail will be used in relation to length of prison sentence while controlling for both seriousness of offense and prior record of the offenders in order to avoid any spurious relationships. For example, type of plea may be related to seriousness of offense or the prior record of the offender. Thus, with the legally relevant variables controlled, a clearer picture of the association of the court process variables with length of sentence can be achieved.
The fourth major hypothesis also grew out of the conflict perspective and the view that various offender demographic characteristics have an influence on length of prison sentence. In particular, Quinney (1970) emphasized characteristics of offenders such as race and social class which imply a lack of power and influence when such groups enter the criminal justice system. The research literature indicates mixed findings with regard to offender demographic characteristics. Many of the early studies from Sellin (1928) to Bullock (1961) found race to be a significant factor in sentencing. Others such as Nagel (1969) and Martin (1934) found social class, marital status, sex, and age as well as educational level to be influential in severity of sentence. However, Green (1960;1961;1964) found no support for extralegal variables when controlling for the legally relevant variables. Chiricos and Waldo (1975) found no support for an association between length of sentence and offenders' social class status. Eisenstein and Jacob (1977) stated that most of the demographic characteristics of the defendants in their samples were relatively unimportant in determining length of sentence.

While the results of previous studies are in conflict over the importance of demographic variables as extralegal factors in sentencing disparity, it seems important to include these variables in this analysis of sentencing variation. More importantly, in this research the extralegal factors about the offenders will be related to length of sentence while controlling for the legally relevant factors of seriousness of offense and prior criminal record in order to avoid any false impressions concerning demographic characteristics. Lack of
control for the legal variables has been a major shortcoming of much of the past research as demonstrated by Hagan (1974).

The last major hypothesis is concerned with the influences, if any, of various community and ecological characteristics of the sentencing counties on length of prison sentence. These extralegal variables have also had mixed support in the research literature. Hogarth (1971) found that the urban character of the community in which the judge lived exerted considerable influence on his sentencing decisions in that urban judges tended to be more punitive. On the other hand, Nagel (1969) found differences between rural and urban counties according to type of offense. Rural courts tended to give more severe sentences for larceny while urban courts gave more severe sentences for assault. Nagel did not investigate other types of offenses. Chiricos and Waldo (1975) found that county urbanism had some small association with length of prison sentence. In any case, it seems that ecological variables such as urbanism, the crime rate, the poverty level, the educational level, and the worth of property of the sentencing counties are in need of further investigation. Of all of the extralegal variables, these kind of factors have been investigated the least, and the use of them are exploratory in nature. As with the other extralegal variables included in this study, the association between the ecological variables and length of prison sentence will be examined while controlling for the legally relevant variables.

Thus, the design of this research involves examining the dependent variable, length of prison sentence, with four sets of independent variables. The first set of variables includes the legally relevant
variables of seriousness of offense and prior record of the offender. These variables are also the major control variables for the remaining independent variables. The second set of variables includes various court related factors such as type of plea, type of attorney, and bail. The third set of independent variables includes the demographic characteristics of the offenders such as sex, race or ethnic status, age, educational level, marital status, and employment. The last set of independent variables includes the ecological indicators concerning the sentencing county such as urbanism, crime rate, poverty and educational level. And, in a more formal statement, the major hypotheses to be investigated by this research are:

1. Seriousness of offense is positively related to length of prison sentence.
2. Criminal history of the offender is positively related to length of prison sentence controlling for seriousness of offense.
3. Court process variables are positively related to length of prison sentence while controlling for seriousness of the offense and criminal history.
4. Offender demographic variables are positively related to length of prison sentence while controlling for seriousness of offense and criminal history.
5. County ecological variables are positively related to length of prison sentence controlling for seriousness of offense and criminal history.

Among the sets of independent variables as expressed in the hypotheses (such as court process variables), each of the variables will be
related to length of sentence separately. These hypotheses, then, are
general ones and the exact variables and their measurement will be
discussed thoroughly in Chapter IV on research methods.

After testing the hypotheses, the next part of the research
involves taking those variables which were found to be substantively
related to length of sentence and using them through multiple correla-
tion to explain variation in sentence length. The development of a
model for total sentence variation will provide a framework for the
understanding of the results from the multiple correlation.

Given the review of the literature and the past research on
sentencing disparity, the model will be composed of five components
which are considered to make up total sentencing variation.

The first component refers to the seriousness of the offense
which should explain a considerable amount of sentence variation if
the legalistic point of view is correct. The second component of the
model is the additional explained variation, if any, accounted for by
the criminal history of the offender. The third component refers to
the various individual circumstances of the act that enter into
legitimate judicial discretion concerning the length of sentence.
Given the acceptance of individualized sentencing, a certain amount of
judicial discretion is allowed and even encouraged in our system of
justice. However, the basic problem with such a notion as so aptly
pointed out by Frankel (1973) is that no boundaries have been
established to guide judges as to the amount added or subtracted to
sentence length due to legitimate judicial discretion. Consequently,
this component of the total sentence is unknown. Although most
European judicial systems have judicial discretion limited to ten
percent of the sentence length, the United States has not put any restrictions on judicial discretion. The range of such discretion or reasonable approximations has not been defined by law or specifically recommended in judicial guides or publications.

The fourth component in the model is the illegitimate and discriminatory addition in sentence length attributable to the extralegal court process, demographic, or ecological variables included in this study. The fifth component of the total sentence variation refers to error variation due to imperfect measures, lack of linear relationships as approximated by multiple correlation, and variation resulting from unmeasured variables. Thus total sentence variation, in this conceptual model can be divided among the following five components:

1. Variation accounted for by the seriousness of the offense plus
2. Variation accounted for by criminal history plus
3. Variation accounted for by judicial discretion plus
4. Variation accounted for by extralegal variables plus
5. Error variation.

The first three components make up the legitimate considerations of the judge in his sentencing decisions while the third component is derived from the conflict perspective and its assertion of the importance of extralegal variables. It will be this component that primarily makes up that part of sentencing which is considered disparate.

Obviously, the framework is made up of two "unknowns" in judicial discretion and error variation. Each of the other components can be assessed with the variables to be used. Nevertheless, the
model provides a conceptual method of understanding sentencing disparity within sentencing variation and can aid in making sense of the results of the data analysis.

The next chapter will review the research methods and techniques used to investigate the hypotheses and the model.
CHAPTER IV

RESEARCH METHODS

Introduction

This chapter will deal with the methodological and procedural techniques employed in this study. The method used in this research was the analysis of existing records on the sentencing of inmates to the State Penitentiary of Oklahoma at McAlester. The use of data on inmates precludes the analysis of those defendants who received probation, suspended or deferred sentences, and fines. This research is focused on length of prison sentence.

The first part of this chapter will be concerned with the collection of the data on sentencing for the inmates. Three sets of data, or cohorts, will form the basis of the analysis. A complete description of the sources of the data will be given.

The second part of this chapter will be a detailed review of the variables available for each set of data and the measurement of them. In the review, the variables will be divided into the four categories of independent variables presented in the previous chapter. Careful consideration will be given to problems in measurement and levels of measurement as these problems relate to the statistical analysis of the data. A discussion of the coding of the variables will also be included.
The last part of this chapter will be a step-by-step description of the procedures to be used in the analysis of the data as well as an outline of the statistical techniques and their assumptions.

Collection of the Data

The data to be used in this study were classified into three cohorts. Cohort I is made up of the 1975 inmate population at the Oklahoma State Penitentiary at McAlester. That is, the cohort consists of inmates who were in residence at some period during the year 1975. The number of cases is 1368. The raw data on the inmates were recorded from official records in the classifications section at the state penitentiary and were provided to this researcher by mail. The data were coded and transferred to IBM computer cards.

Cohort II consists of the 1975 parole releases from the state penitentiary. The raw data were made available by the research section in the Oklahoma Department of Corrections in the form of a list of card images on a computer printout. The information had to be translated according to the coding of the Department of Corrections and recoded to fit the necessities of this study. For example, the Department of Corrections had, for the variable sex, males coded as "1" while this researcher needed to have males coded as "2".

For Cohort II, 708 cases were on the computer printout provided by the department, but only 647 had at least some information. Only a little more than 300 cases had complete data on all the variables. Several other problems related to measurement in Cohort II became evident as the study progressed, and these problems will be discussed later in this chapter.
Cohort III contains information on the new admissions to the state penitentiary during the first six months of 1976. The raw data, containing information on 1257 inmates, were obtained from the classifications section at the prison in the same manner as Cohort I. Of the three sets of data, Cohort III contains the most comprehensive set of variables in this study as well as the least amount of missing information on the variables included. Cohort III along with Cohort I will form the basis of the most in-depth analyses on sentencing variation.

It should be noted that these cohorts represent populations rather than random samples of inmates in the state penitentiary for specified time periods. Thus, any attempt to generalize these results to other states and other time periods should be an extremely cautious one. However, the results from these cohorts can be used as a rough indicator of the processes involved in sentencing disparity. While statistical tests of significance concerning sample results may not be in order, they will be reported in the results for the reader. In addition, it should be noted that in Oklahoma generally the more serious offenders are sent to McAlester rather than other minimum or medium security facilities in the state.

Measurement of the Variables
Available in Each Cohort

When a researcher uses the existing data from governmental agencies, he has to rely on the form and type of variables available within that information. Consequently, in this research, the variables differ with each cohort and the exact form was, in several cases, not the ideal one.
For purposes of this study, the dependent variable length of prison sentence was measured in months. In the cases of indeterminate sentences, the minimum number of months was recorded following Green (1960) and Chiricos and Waldo (1975). Twenty-five years (300 months) was recorded for a "life" sentence. Sentences longer than twenty-five years were considered "longer than life sentences" and were recorded as 400 months. This was done in order to rule out inordinately long sentences such as 1000 years which appeared occasionally in the data. Death sentences were recorded as 500 months. The only previous researchers, Chiricos and Waldo (1975), to use length of sentence as a continuous variable recorded 480 months (40 years) for both life and death sentences but this measurement does not allow for the difference in severity between life and death sentences.

In addition to the dependent variable, four sets of independent variables, legally relevant variables, court process variables, offender demographic variables, and ecological variables, were included in the design. These four sets of variables will now be discussed according to their availability in each cohort.

The legally relevant variables used in this study included seriousness of offense and criminal history of the offender. For seriousness of offense, a total of twenty-four offenses ranging from libel (least serious) to felony murder (most serious) were included. These offenses were also categorized into six groups of offenses according to seriousness: offenses against public order such as libel, escape, and rioting; drug related offenses such as drug possession, drug sales, and driving while intoxicated (second offense is a felony under Oklahoma law); property offenses such as larceny,
auto theft, fraud and embezzlement, and burglary; sex offenses including molesting, homosexuality, and rape; violent offenses including assault and robbery; and offenses with fatal consequences such as manslaughter and murder. Refer to Table I for a complete listing of the offenses in order of seriousness and within the six categories. These categories were organized in order of severity corresponding closely to Green's (1960) findings concerning seriousness and to the FBI listing of serious offenses. This variable was available for each cohort.

The other legally relevant variable, prior criminal record, was indicated in various ways in the three cohorts. The only measure available for the 1975 inmate population was prior adult conviction of a felony (coded no or yes). For Cohort II, the 1975 parole population, the number of prior adult incarcerations (both total incarcerations and incarcerations in Oklahoma) for a felony offense was available. For Cohort III, prior juvenile and adult incarcerations, and any previous probations or suspended and deferred sentences, and prior conviction of a felony (no or yes) were available as measures of criminal history. Cohort III contained the most complete information on recidivism. Each of these indicators of criminal history were treated as interval level measures. The variable prior adult conviction of a felony (coded no or yes) can be treated as an interval level measure because it is a dichotomy and the requirement of distance based on equal-sized intervals is satisfied (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975).

The second category of independent variables, court process variables, included type of plea (guilty, not guilty), type of
TABLE I
CATEGORIES AND CRIMES FOR THE VARIABLE SERIOUSNESS OF OFFENSE

I. Public Order Offenses
Libel
Escape
Felon with Firearm
Riot

II. Drug Offenses
Possessions of drugs, driving while intoxicated
Possession of drugs with intent to distribute
Drug sales

III. Property Offenses
Larceny, possession of stolen goods
Automobile theft
Fraud and embezzlement
Forgery and uttering
Burglary
Arson and property destruction

IV. Sex Offenses
Molesting, indecent exposure
Indecent assault, attempted rape
Homosexuality, sodomy
Rape with or without violence

V. Violent Personal Offenses
Assault and attempted assault
Aggravated assault
Kidnapping
Robbery—all kinds
Attempted murder, pointing a firearm

VI. Homicide Offenses
Manslaughter
Second degree murder
First degree murder
Felony murder
attorney (private or court-appointed), ability to post bail (yes, no) and appeal (no, yes) which were all available for Cohort I. Only type of plea and type of attorney were available for Cohort II. All of the variables except for appeal were available for Cohort III.

The third category of independent variables, offender demographic characteristics, included sex, race (white, black, Indian, and Mexican-American), age at prison commitment, marital status (married, widowed, common law marriage, divorced and single), and completed education (in years) which were available for each cohort. It should be noted that each variable was coded according to the direction of the hypothesis. For example, for the variable sex, females were coded as "1" and males as "2" because the literature indicated that males tended to receive harsher sentences.

Cohort II had information for additional demographic variables including the number of brothers and sisters an inmate had, the number of times committed to a mental hospital, an alcohol use indicator, a drug use indicator, and military record. In addition, Cohort II had information on the age at first arrest for some of the inmates.

For Cohort III, additional demographic variables included drug use at time of offense (no, yes), alcohol use at time of offense (no, yes), whether the offense was committed alone or with others, and other family members convicted of felony offenses (none, extended family members, immediate family members, and both extended and immediate family members).

The fourth and last set of independent variables, the ecological indicators concerning the county sentencing, were constructed from
other sources of information and were used for all three cohorts. It was decided that seven ecological indicators would be used: the rural-urban character of the county, county property assessment per person, median education of county residents 25 years and older, unemployment rate per county, the mean census income of county residents, crime rate per county, and the percent of persons below the poverty level in each county. Due to early short range planning, the variables were ranked rather than using the more complete figures.

For the urbanism variable, the 77 Oklahoma counties were divided into three groups according to 1975 population figures. The first group consisted of four counties having more than 60,000 residents. The second group consisted of 22 counties having populations ranging from 25,000 to 60,000. The last group consisted of the rural counties having less than 25,000 residents per county.

The property assessment variable involved ranking the counties from low to high according to figures from the Oklahoma Tax Commission (1974). The variable had seventy-two ranks as some of the counties had the same property assessment figure.

Median education of county residents, obtained from the U.S. Bureau of the Census (1972), was ranked from low to high. Unemployment rates per county were ranked from low to high according to information also obtained from the 1970 Census. The variable of mean census income was made up of ranks from low to high also from census data. The crime rate for each county was obtained from the Oklahoma State Bureau of Investigation, 1975 Report. Counties were ranked from low to high according to their crime rate.
The percent of county residents below the poverty level was obtained from the 1970 census and, again, the counties were ranked from low to high according to the percentage of the residents below the U.S. government established poverty level.

As with any social science research, various problems in measurement are evident in this research on sentencing variation. For example, Cohort II was plagued with missing data for a number of the variables. In fact, only 308 of 647 cases had complete information along the major variables of sentence, offense, recidivism, and plea. Also, in the data provided for Cohort II, a zero was used by the Department of Corrections to indicate missing data. Thus, for variables such as prior adult incarcerations, if a zero was present for a case it was not known if the data were missing or if the parolee had no prior incarcerations so the data had to be thrown out. Consequently, this process added to the number of missing cases.

Fortunately, missing information was left blank in the raw data for the other two cohorts so a distinction could be made. In addition, the other two cohorts had very little missing information on the inmates and these cohorts were used more extensively in the data analysis.

As Babbie (1975) pointed out, one of the major problems in the use of existing statistics is that the variables that are represented in the data available for analysis may not correspond to the variables the researcher may wish to study. In this research, some of the important variables had very little information. For example, the measure of recidivism, prior conviction of a felony, did not tell us what kind of offenses the inmate had previously been convicted of nor does it tell us how many. The information provided by officials of
the state penitentiary also did not tell us anything about special circumstances surrounding the offense or mitigating factors surrounding the conviction. It did not tell us anything about the strength of evidence against the offender which was found to be important in the research of Eisenstein and Jacob (1977). The raw data gave no indication of the number of bills of indictment against an offender which was found to be significant in the research of Green (1960). But perhaps most importantly, the data offered no information on the characteristics of the judge, his personality, penal philosophy, his background or education. No information was available on prosecutors. While these problems certainly are drawbacks to the research, they do not negate the importance of the variables that were available for study. However, one does have to keep in mind the fact that a number of indicators are missing in the analysis.

Procedure for Data Analysis

The purpose of this section of the chapter is to describe the stages involved in the analysis of the data and the statistical methods involved in each stage.

The first stage of the analysis was concerned with descriptive univariate statistics. Frequencies were computer for each variable in each cohort and descriptive statistics such as means, medians, modes, ranges and standard deviations were computer for each variable. This descriptive information is presented in the first section of Chapter V.

The second stage in the data analysis involved testing the hypotheses presented in Chapter III. Pearson correlation and partial
correlation were the principal statistical techniques employed in the hypothesis-testing. Bivariate correlation was used to check the relationship of length of prison sentence with seriousness of offense. First-order partial correlation coefficients were used to check the relationship of length of sentence with criminal history while controlling for the effects of seriousness of offense. Second-order partial correlations were used for the remaining hypotheses investigating the relationships of court process, demographic, and ecological variables with length of sentence controlling for the effects of the legally relevant variables, seriousness of the offense and recidivism. As an additional test of the hypotheses, the correlations were computed for each offense category to see if the relationships changed within them.

The use of Pearson correlation assumes continuous interval measurement for all variables. It assumes that the variables are related in a linear fashion (Leother and McTavish, 1976). However, Pearson correlation is a robust statistic in that it assumptions can be violated within reason (see Bohnstedt and Carter, 1971 for a discussion of robustness in multiple correlation and regression). In this study, the various ordinal variables including the county ecological indicators were tested using Pearson correlation under the assumption that the use of rank-order variables does not warrant a violation of assumptions so severe as to question the results.

The third stage of the data analysis involved a more detailed and comprehensive analysis of the relationships found to be substantive and meaningful in the testing of the hypotheses. That is, fewer variables were subjected to closer scrutiny in their effects on length
of prison sentence. At this stage, multiple correlation and regression were the statistical techniques used to determine the relative importance and contribution of each independent variable in explaining sentencing variation. According to Loether and McTavish (1976) multiple correlation assumes that the variables under study are related in a linear fashion, that the effects of the independent variables can be added together, that these variables are independent and not correlated, and that all variables are interval level measures.

The results of the multiple correlation will be interpreted according to the model of total sentencing variation which was presented in Chapter III.

As a part of this last stage, each of the offense categories will be investigated using the multiple correlations and the model to see if the results differ within the categories. In addition, using the standardized beta coefficients from the regression analysis, an attempt was made to construct a path analysis of the major variables according to time order among them. Through the path analysis, a graphic representation of the major determinants of length of sentence can be achieved.

The next chapter will be concerned with the first two stages of the data analysis: the description of the samples and the testing of the hypotheses.
CHAPTER V

ANALYSIS OF THE DATA:

HYPOTHESIS-TESTING

This chapter will be concerned with the first two stages of data analysis. The first part of this chapter will be a descriptive outline of the three cohorts along the categories of variables in order to get an introductory understanding of the kind of data on sentencing variation. The second part of this chapter will be the testing of the hypotheses set out in Chapter III. Each hypothesis will be tested for each cohort. In addition, each hypothesis will be tested within the five categories of offenses (not including public order offenses) for Cohorts I and III to see if differences occur among the various types of crime. The variables which emerge as having a substantive relationship with length of sentence will then be used for further analysis in Chapter VI.

Description of the Cohorts

Cohort I

For the 1368 inmates making up the 1975 inmate population, the length of prison sentence ranged from one month to 500 months while the average length of sentence was 161 months or 13½ years. Close to 26% of the sentences were for life (25 years), longer than life,
or the death penalty. In fact 46 or 3.4% of the inmates were sentenced to death. The median sentence was 117 months while the standard deviation was 138.8 months.

Regarding the legally relevant variables, of the 1368 inmates, 3% were sentenced for crimes against the public, 66% for drug offenses, 39% for property offenses, 6% for sex offenses, 46% for offenses against persons (16% of these were for offenses with fatal consequences). The most frequently occurring offense was robbery for which 24% were sentenced.

Using the one measure of criminal history available for Cohort I, 78% of the inmates had previously been convicted of a felony offense while only 17% had not. Data were missing for 5% of the inmates.

Regarding the court process variables, 58% of the inmates pleaded guilty, 34% pleaded not guilty while information was not available for 8% of the inmates. Thus, of the 1257 inmates for which data were present, 63% pleaded guilty which gives some indication of the plea-bargaining aspect of criminal justice in Oklahoma.

Concerning type of defense attorney, 33% of the inmates had private counsel while 59% had court-appointed attorneys and 8% of the population had no information on attorney. Only 44 or 32% of the inmates appealed their sentences while the rest did not. Only 18% of the inmates were able to get out on bail while 74% were not. Close to 8% had no information on bond.

Regarding the demographic characteristics of the inmates, only 5.2% were female and 94.8% were male illustrating the overwhelming preponderance of males as penitentiary inmates for that year. The inmates were also predominantly white as 63% illustrated. The
remainder of the population was comprised of 31.3% black, 4.9% Indian, and .8% Mexican-American.

The ages of the inmates ranged from 15 to 72 while the average age was close to 29, the most frequently occurring age was 23, and the median age was 26 reflecting a relatively young population.

Of the 1368 inmates, the average length of stay in the prison at that time was three years with 43% of the inmates having been incarcerated only one year or less for their current offenses. Slightly more than 98% of the inmates had been incarcerated for ten years or less.

Close to 49% of the inmates were unemployed at the time of the offenses while 43% were employed. Information was missing for 8% of the inmates. Concerning marital status, 30% of the inmates were married, 1% were widowed, 15% were common-law wed, 16% were divorced, and 30% were single. Data were missing for 8% of the inmates. Relative to educational attainment, the inmates had an average of 10.4 years of education. Only 8% had more than a high school education. No data were available for 9% of the inmates.

In reviewing the ecological variables, it was evident that a large majority, 65%, of the inmates were sentenced in the urban counties of Oklahoma which included Oklahoma, Tulsa, Comanche, and Cleveland counties. The remaining inmates were scattered over the other 74 counties. About 21% were sentenced in the 22 counties having populations ranging from 25,000 to 60,000 while 14% of the inmates were sentenced in the 51 rural counties having less than 25,000 in population.
Regarding property assessment per person per county, the counties fell into 72 ranks with 43 being the median rank. The urban counties fell in the middle of the ranking consequently most of the inmates were from counties which were in the middle. Most of the inmates came from counties which had the highest median educational levels as there were 60 ranks for the 77 counties and the median rank was 30.7.

There were 52 ranks from low to high for unemployment rates among the counties. The median rank was 31.8 indicating that half of the inmates were sentenced in counties ranked below that and half from above. The unemployment rates for the urban counties fell in the middle of the rank order. There were 71 ranks for the mean census income of county residents ranked from low to high. The median rank was 69.6 as the urban counties had the highest census incomes per resident. County crime rates fell into 60 ranks with the median being 57.9 as the urban counties had the highest crime rates and most of the inmates were sentenced in urban counties. The counties fell into 31 ranks for percent county residents below the poverty level and the median rank was 2.3 indicating that the urban counties had the least percent of residents below the poverty level.

Cohort II

This cohort originally consisted of 708 parole releases for the year 1975 but only 647 cases had data for at least some variables. The cohort has a high number of missing values for several of the variables included.

Data were available for 614 parolees concerning the original length of prison sentence. The average sentence was 76 months or a little more
than six years. Approximately 71% of the parolees had sentences of five years or less. Close to 6% of the parolees had sentences of 25 years or longer although none had originally received the death penalty.

The most frequently appearing offense among the parolees was burglary; 20% of them were sentenced for that crime. 4% of the inmates were sentenced for offenses against public order, 21% were sentenced for drug offenses, 45% were sentenced for sex offenses, 14% were sentenced for assault and robbery, and 11% were sentenced for offenses with fatal consequences.

Only 34% of the parolees had one or more prior prison commitments (19% were in Oklahoma) while the remaining 66% had no previous commitments.

Regarding the court process variables, 82% of the parolees pleaded guilty to the offenses for which they were sentenced while 18% pleaded not guilty. Close to 52% of the inmates had private defense attorneys while 48% had court-appointed or public defenders. Data were missing on 47 of the 647 parolees.

Turning now to the demographic characteristics of the parolees, 6% of them were female while 94% were male. Data were missing for 4 parolees.

Regarding ethnicity, 73% of the parolees were white, 21% were black, 4% were American Indian, and 1% were Mexican-American. Data were missing for 7 of the parolees.

The average age of the parolees was 27 while the median was close to 25 years of age. Only 10% of the parolees were 40 years of age or older.
Concerning marital status, 36% were married, 5% were widowed, 13% were common-law wed, 17% were divorced, and 27% were single. Data were missing for 2% of the parolees.

Concerning educational level, 41% did not have data. Of the remaining 383 parolees, the average educational attainment was almost 11 years and 67% of the parolees had not completed high school.

Close to 11% of the parolees had been committed to a mental hospital one or more times. About 40% had served in the armed services or in the reserves while 60% had not.

Data for drug use were available for 583 parolees and 60% of these indicated no drug use while 24% had used marijuana, 7% had used opiates, 2% had used hallucinogens, 5% had used stimulants and 1% had used depressants. No indication of how regularly or when drugs were used by the parolees was given.

Data for alcohol use were available for 164 parolees, and 19% of them indicated no alcohol use while 52% indicated social or habitual use and 20% reported problems with alcohol such as arrests for public drunkenness or committing offenses while intoxicated.

Reviewing the ecological variables of the county of sentencing for the inmates, 59% of the parolees were from the four urban counties while 34% were from the less urbanized counties, and 7% were from the rural counties. Of the remaining six county indicators, property assessment, median education, unemployment rate, census income, crime rate, and poverty level, the medians for each was the same as for Cohort I. The county ecological variables were quite similar in make for all three cohorts.
Cohort III

For the 1257 new admissions to the state penitentiary during the first six months of 1976, the average length of sentence was 70 months or nearly six years with a standard deviation of 86 months. This average length of sentence was considerably shorter than that for Cohort I and about the same as that for Cohort II. The most frequently appearing sentence length was 24 months, and only 5% of the inmates received life, longer than life, or death sentences. Close to 77% of the inmates received sentences of five years or less. Of the inmates, 6% had consecutive sentences while 28% had concurrent sentences.

Concerning the legally relevant variables, the most frequently appearing offense was burglary with 24% of the inmates sentenced for that offense. In categories of offenses, 3% of the inmates were sentenced for crimes against public order, 7% for drug offenses, 58% for property offenses, 3% for sex offenses, 17% for violent personal offenses, and 5% for offenses with fatal consequences. Close to 40% committed their offenses against an individual, 37% were against a corporation, and 23% were against the public. Approximately 67% of the inmates committed their offenses alone while 33% of the inmates were with others.

Regarding criminal history, 63% of the inmates had no previous adult convictions of a felony while 37% did. This figure differs considerably from Cohort I where the majority of the inmates were recidivists. For Cohort III, 39% of the inmates had previous suspended or deferred sentences while 21% had previous probated sentences and 39% had no previous suspended, deferred, or probated sentences. Only 33% of the inmates had been incarcerated as a juvenile for one or more
times while 37% of them had been incarcerated as an adult one or more times.

Regarding the court process variables, 86% of the inmates had pleaded guilty to their offenses while 14% had not. This is a higher percentage than that for the 1975 inmates. Concerning type of attorney, 45% of the inmates had private defense counsel while 55% of them had court-appointed counsel. Close to 44% of the inmates were able to post bond while 56% were not. No data were available on appeals by the inmates in this cohort.

Turning to the demographic characteristics of the inmates, 6% were female while 94% were male following the trend in the previous cohorts. About 67% of the inmates were white, 26% were black, 50% were Indian, and 1% were Mexican-American. The average age of the cohort was 27 years of age and the median age was 24.

Of the inmates, 49% were employed at the time they committed the offenses while 51% of the inmates were unemployed. 27% were married, 1% were widowed, 16% were common-law wed, 18% were divorced, and 37% were single. Of the 1257 inmates, the average level of educational attainment was 11 years and the median was the same. About 60% of the inmates had not completed 12 years of school, and only 1% had finished college.

For 17% of the inmates, it was indicated that they were on some kind of drugs at the time of the offense while the rest were not. Close to 32% of the inmates had used alcohol at the time of the offense while the rest had not.

Of the inmates 66% had no other family members who had been convicted of a felony, 9% had either one or more extended family members
who had been convicted of a felony, 20% had immediate family members with prior felony records, and 6% had both extended and immediate family members who had been convicted of a felony.

In reviewing the ecological measures of the counties, 58% of the inmates were sentenced in the four urban counties, 24% were sentenced in the less urban counties, and 16% were in the rural counties of Oklahoma.

For the remaining six county indicators, the make up of the 1976 new admissions were quite similar to the other two cohorts in that the medians for each variable were the same.

Summary

The three cohorts were similar along demographic characteristics. Similar percentages for sex, ethnicity, age, marital status, and employment were observed. The three cohorts also had similar characteristics regarding the counties of sentencing of the populations. The inmates were primarily sentenced in urban counties with high crime rates, low percentages of residents below the poverty level, high mean incomes, middle-level educational medians, middle-level property assessments, and middle-level unemployment rates.

Cohort I did differ from the other two cohorts in that their average length of sentence was considerably longer, the offenses more serious, and the inmates were more often recidivists than the other two cohorts. In addition, fewer of the inmates pleaded guilty.

The next section of this chapter will involve the statistical analyses of the three cohorts in order to test the hypotheses.
Hypothesis-Testing

Hypothesis 1

The first hypothesis to be tested stated that seriousness of offense is positively related to length of prison sentence. The Pearson correlation coefficient for offense and sentence length for Cohort I (1238 usable cases) was .57 which indicated that as seriousness of offense increased so did the length of sentence in a linear fashion. For Cohort II, the correlation was .51 for the 306 parolees for which data were available. For Cohort III, 1254 new admissions to the state penitentiary in 1976, the correlation between seriousness of offense and sentence length was .47. Each of these correlations was statistically significant at the .05 level. After squaring the correlations, the variation explained in sentence length by seriousness of offense alone was 32%, 26%, and 22% respectively for the three cohorts. Thus, the hypothesis was supported by the data in that seriousness of offense was associated with length of sentence in all three cohorts in a substantive and statistically significant manner.

The results supported the legalistic assumption that seriousness of the offense carries considerable weight in determining the criminal sentence length. The results also agree with the previous findings of Bullock (1961) and Eisenstein and Jacob (1977) who noted that offense was the most significant variable in their research.

Hypothesis 2

The second hypothesis stated that criminal history is positively related to length of sentence controlling for seriousness of offense.
The effects of seriousness of offense were statistically controlled through partial correlation in order to get a clearer picture of the relationship between recidivism and length of prison sentence.

Using the only measure of criminal history for Cohort I, whether or not the inmate had any prior felony convictions, the zero-order correlation between recidivism and sentence was -.15. This seemed to indicate that if the inmates had one or more prior convictions his sentence was slightly likely to be shorter than those who had no prior felony convictions. However, since many of the public order offenses, which were considered less severe than the other offenses, included offenses such as "escape from prison" and "felon with firearm", many of the inmates convicted of these offenses were recidivist by definition. In turn, this influenced the correlation of recidivism and length of sentence.

When seriousness of offense was controlled, the partial correlation between length of sentence and recidivism was .003 which indicated virtually no association between the two variables. Such an outcome certainly does not support the hypothesis but does follow the results of Green (1960) in that recidivism was not related to length of sentence. However, before coming to any premature conclusion, consideration should be given to the idea that the measure of recidivism available for Cohort I did not contain enough information on criminal history. For example, the measure does not indicate how many previous felony convictions an inmate had, and it does not indicate what the convictions were for. In addition, it should be remembered that Cohort I had a large majority, 78%, which had previous felony convictions and
it is possible that the measure simply did not vary enough to show any difference in length of sentence.

In testing the hypothesis that criminal history is related to length of sentence for Cohort II, prior commitments to correctional institutions (coded either none or the actual number of commitments) was the measure available. The zero-order correlation between prior commitments and length of sentence was .13 indicating a slight but statistically significant relationship. When controlling for seriousness of offense, the partial correlation coefficient remained at .13 for 306 parolees with complete data.

Using Cohort III, the measures available to test the hypothesis were prior felony convictions (yes or no), the number of prior adult incarcerations, the number of prior juvenile commitments, if any, and previous deferred, suspended, or probated sentences.

The zero-order correlation between prior felony convictions and length of sentence was .17 while the partial correlation controlling for seriousness of offense was .21 (statistically significant at the .05 level for 1254 cases) which indicated a moderate relationship between the two variables.

The zero-order correlation between prior adult incarcerations and length of sentence was .08 while the partial correlation controlling for seriousness of offense was .11, again significant at the .05 level. However, substantively, the result did not indicate much of a relationship between prior adult incarcerations and length of sentence.

The zero-order correlation between prior juvenile incarcerations and length of prison sentence was .04 and the partial correlation
controlling for seriousness of offense was .01 which indicated neither a statistically significant or a substantive relationship between the two variables.

The zero-order correlation between previous deferred, suspended, or probated sentences (coded 1 = none, 2 = deferred, 3 = suspended, 4 = probated, in order of seriousness) and length of sentence was -.09 while the partial correlation was -.04. These results again indicated neither a statistically significant or substantive relationship.

The results, then, in light of the hypothesis are somewhat contradictory. For Cohort I, recidivism as measured by prior felony convictions had no relationship with length of prison sentence. In Cohort II, only a slight relationship existed between sentence and prior adult incarcerations. For Cohort III, only one measure of recidivism, prior felony convictions, had a moderate association with length of prison sentence. Consequently, the hypothesis that criminal history is related to length of sentence is only partially supported by the data. However, the results must be interpreted cautiously given the nature of the measures and the information that was not accessible. In addition, it is necessary to be aware that Cohort I had a majority of recidivists while Cohort III had a majority of 63% that were not recidivists which could make a difference in the results. The results supported the earlier research of Green (1960), Bullock (1961), and Eisenstein and Jacob (1977) who found that recidivism had relatively little impact on length of prison sentences.
Hypothesis 3

The third major hypothesis to be tested stated that court process variables are positively related to length of sentence controlling for both seriousness of offense and criminal history. The court process variables for Cohort I included type of attorney, type of plea, whether or not the inmate appealed his conviction, and whether or not the inmate was able to post bail.

Table II gives a summary of the results of the correlations for all three cohorts. For Cohort I, the zero-order correlation between length of sentence and type of attorney was .04 while the partial correlation controlling for seriousness of offense and prior felony record was -.01 which indicated virtually no association between length of sentence and whether the inmate had a private or public defender. For Cohort II, the zero-order correlation between length of sentence and type of attorney was -.09 while the partial correlation controlling for seriousness of offense and prior prison commitments was -.21 which indicated that inmates with private attorneys tended to have slightly longer sentences and this was not the direction hypothesized; however it supported the findings of Eisenstein and Jacob (1977). For Cohort III, the zero-order correlation between type of attorney and length of sentence was -.02 while the second-order partial controlling for seriousness of offense and prior felony convictions (chosen from the recidivism indicators in Cohort III because it showed the most association with length of sentence) was -.06 which indicated no substantive relationship. Thus, only Cohort II showed any correlation between type of attorney and length of sentence and that was not in the direction hypothesized.
TABLE II

ZERO-ORDER AND SECOND-ORDER* CORRELATIONS
BETWEEN LENGTH OF SENTENCE AND
COURT PROCESS VARIABLES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I</th>
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<th>Cohort III</th>
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<td>0-Order</td>
</tr>
<tr>
<td>Attorney</td>
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<td>-.01</td>
<td>-.09</td>
</tr>
<tr>
<td>Plea</td>
<td>.48</td>
<td>.44</td>
<td>.35</td>
</tr>
<tr>
<td>Appeal</td>
<td>-.16</td>
<td>-.15</td>
<td>--</td>
</tr>
<tr>
<td>Bond</td>
<td>.24</td>
<td>.08</td>
<td>--</td>
</tr>
</tbody>
</table>

N=1238      N=308      N=1254

*Controlling for Seriousness of Offense and Recidivism.

Correlations underlined are statistically significant at the .05 level.
For Cohort I, the zero-order correlation between length of sentence and type of plea was .48 while the second-order partial was .44. This result indicated that a fairly strong association existed between length of prison and whether or not the inmate pleaded guilty or not guilty. That is, the correlation indicated that pleading guilty was associated with shorter sentences even while controlling for the offenses and the felony convictions of the inmates.

For Cohort II, the zero-order correlation between plea and sentence as well as the second-order partial (.34) also indicated a fairly strong and statistically significant relationship. For Cohort III, the second-order partial of .28 indicated a moderate relationship between plea and sentence while controlling for the legally relevant variables. Thus, type of plea emerged as an important variable relative to length of prison sentence.

For Cohort I, a zero-order correlation between length of sentence and ability to post bail was .24 but the second-order partial controlling for the legally relevant variables was .08 which indicated that any association between sentence and bail was due to the seriousness of the offense and prior felony record. Similarly, the second-order partial correlation between bond and sentence was negligible.

Only Cohort I had data on appeals of the inmates and the second-order partial of -.15 indicated a slight relationship in that inmates who appealed the court's decisions were likely to receive longer sentences. However, it is likely that the effects of appeal are mediated through type of plea in that those who pleaded not guilty were more likely to appeal. The association between plea and appeal was -.22 and the partial correlation between length of sentence and
appeal while controlling for type of plea was reduced to -0.06.

The results of the investigation of the court process variables and their relationships to length of sentence showed that type of plea was the only variable to be consistently associated with length of prison sentence even when controlling for the legally relevant variables. Whether or not the inmate had appealed his case and ability to post bail had negligible associations with sentence when other variables were taken into account. Type of attorney was not associated with sentence length in Cohorts I and III but was moderately associated with sentence in Cohort II but in a negative direction as was found by Eisenstein and Jacob (1977). Thus, the hypothesis that court process variables have an influence on sentence length was partially supported by the data with the variable type of plea.

The results for plea supported the earlier research of Bullock (1961), Harries and Lura (1974), Kelly (1976), and Eisenstein and Jacob (1977) who found that offenders who pleaded guilty were likely to receive shorter sentences. In addition, the results for plea offer strong support for the conflict assumption that the courts look with favor on guilty pleas in aiding the smooth functioning of the system. A longer sentence for those who pleaded not guilty was, in a sense, a punishment for wasting court time and effort.

Hypothesis 4

The fourth major hypothesis to be tested was that offender demographic variables are positively related to length of sentence controlling for seriousness of offense and recidivism.
The demographic variables available for study in Cohort I were sex, race, age, marital status, whether or not the inmate was employed at the time of the crime, and level of completed education. Table III presents the results of the zero-order and second-order correlations for these demographic variables as well as the ones for the other two cohorts.

The zero-order correlations between each demographic variable for Cohort I showed no real associations with length of sentence at all. None of the correlations were over .08. The second-order partials, controlling for seriousness of offense and recidivism, also showed no associations of any consequence.

The demographic variables available for study in Cohort II were race, sex, number of brothers in the inmate's family, number of sisters, alcohol use, drug use, marital status, and level of completed education. Age was not included in the analysis due to the extremely high number of missing cases. As with Cohort I, the zero-order correlations between length of sentence and the demographic variables were negligible as were the second-order partials controlling for the legally relevant variables. A correlation of -.11 between marital status and sentence was the highest for any of the demographic characteristics of the cohort.

The demographic variables in Cohort III were the same as Cohort I with the inclusion of drug use or alcohol use at the time of the offense. The same results were apparent in that the demographic variables showed no substantive relationships with length of prison sentence with or without controlling for the legal variables with the exception of a curious relationship between level of education and sentence. A
### TABLE III

ZERO-ORDER AND SECOND-ORDER * CORRELATIONS BETWEEN LENGTH OF SENTENCE AND OFFENDER DEMOGRAPHIC VARIABLES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I 0-Order</th>
<th>Cohort I 2-Order</th>
<th>Cohort II 0-Order</th>
<th>Cohort II 2-Order</th>
<th>Cohort III 0-Order</th>
<th>Cohort III 2-Order</th>
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</thead>
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<td>.06</td>
<td>.07</td>
<td>.02</td>
<td>.01</td>
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<td>-.03</td>
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<td>.04</td>
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<td>--</td>
<td>.00</td>
<td>-.02</td>
</tr>
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<td>-.01</td>
<td>-.11</td>
<td>-.11</td>
<td>-.03</td>
<td>-.01</td>
</tr>
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<td>--</td>
<td>.05</td>
<td>.01</td>
</tr>
<tr>
<td>Education</td>
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<td>.00</td>
<td>-.07</td>
<td>.02</td>
<td>.10</td>
<td>.15</td>
</tr>
<tr>
<td># Brothers</td>
<td>--</td>
<td>--</td>
<td>-.05</td>
<td>-.07</td>
<td>--</td>
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<tr>
<td># Sisters</td>
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<td>-.03</td>
<td>--</td>
<td>--</td>
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<tr>
<td>Alcohol Use ¹</td>
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<td>--</td>
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<td>-.07</td>
<td>-.01</td>
<td>-.04</td>
</tr>
<tr>
<td>Drug Use ²</td>
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<td>--</td>
<td>-.10</td>
<td>-.10</td>
<td>-.02</td>
<td>.13</td>
</tr>
<tr>
<td>Met. Hospitals</td>
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<td>--</td>
<td>-.09</td>
<td>-.08</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Crime Alone or</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.09</td>
<td>.02</td>
</tr>
<tr>
<td>with Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N=1238</td>
<td>N=308</td>
<td>N=1254</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Controlling for Seriousness of Offense and Recidivism.

¹Refers to general alcohol use for Cohort II and for use at time of offense for Cohort III.

²Refers to general drug use for Cohort II and for use at time of offense for Cohort III.

Correlations underlined are statistically significant at the .05 level.
second-order partial of .15 existed between education and sentence which indicated (slightly) that the higher the education the longer the sentence. This result could be due to an association between plea and level of education as the correlation between them as .17. The partial correlation between education and sentence while controlling for the effects of plea was .05. Thus, the association between education and sentence was due to the type of plea in that the more educated tended to plead not guilty.

Thus, the hypothesis that offender demographic characteristics are associated with the length of prison sentences was not supported by the data from the three cohorts.

The results are in direct contrast to the conflict assumptions that the poor and the black receive the harshest sentences in criminal courts. However, the results add to recent research (Green, 1960, 1961, 1964; Hagan, 1974; Kelly, 1976; Chiricos and Waldo, 1975; and Eisenstein and Jacob, 1977) which illustrated that offender demographic characteristics had very little influence on length of sentences handed down by the courts. The results supported the legalistic hypothesis that judicial decisions are not the result of radical or class prejudices, at least with regard to sentence length.

Hypothesis 5

The last hypothesis to be tested was that county ecological variables are positively related to length of sentence controlling for seriousness of offense and recidivism. The ecological variables concerning the county of sentencing included county property assessment
per person, median education of county residents, the unemployment level of the county of sentencing, the mean census income of county residents, the county crime rate, the percentage of county residents below the poverty level, and county urbanism. It should be remembered that the 77 Oklahoma counties were ranked along each variable numerically from low to high except for county urbanism for which the counties were divided into three groups from rural to urban.

For Cohort I, the zero-order correlations between length of sentence and each county variable were for the most part relatively small. County crime rate and urbanism did have second-order correlations of .14 and .16 respectively which indicated weak relationships with length of sentence. The higher the crime rate, the longer the sentence and the more urban the county, the longer the sentence.

The zero-order and second-order correlations for the three cohorts' ecological measures are summarized in Table IV.

Interestingly, for Cohort II, all of the county variables except unemployment rate had second-order correlations with length of sentence that were higher than .15 and were statistically significant at the .05 level. For Cohort III, the second-order partial for county crime rate was .15 and the highest for that cohort followed by urbanism which is similar to the results for Cohort I.

It should be noted that the ecological measures were highly intercorrelated and they may be sharing association with sentence.

Since the county ecological variables were rank-order in nature, it was decided to run an additional test of the hypothesis using zero-order and second-order gammas as the correlation technique. Gamma is designed for use with rank-order variables.
### TABLE IV

**ZERO-ORDER AND SECOND-ORDER CORRELATIONS BETWEEN LENGTH OF SENTENCE AND COUNTY ECOLOGICAL VARIABLES**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I</th>
<th>Cohort II</th>
<th>Cohort III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-Order</td>
<td>2-Order</td>
<td>0-Order</td>
</tr>
<tr>
<td>Prop. Assess.</td>
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<td>.06</td>
<td>.13</td>
</tr>
<tr>
<td>Median Educ.</td>
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<td>.12</td>
<td>.06</td>
</tr>
<tr>
<td>Unemployment</td>
<td>.03</td>
<td>.06</td>
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</tr>
<tr>
<td>Mean Income</td>
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<td>.13</td>
<td>.11</td>
</tr>
<tr>
<td>Crime Rate</td>
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<td>.14</td>
<td>.06</td>
</tr>
<tr>
<td>Poverty Level</td>
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<td>-.12</td>
<td>-.09</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.17</td>
<td>.16</td>
<td>.06</td>
</tr>
</tbody>
</table>

N=1238          N=308   N=1254

*Controlling for Seriousness of Offense and Recidivism.

Correlations underlined are statistically significant at the .05 level.
The gammas were computed using only Cohorts I and III as these cohorts had the most complete data and were considered to be more reliable. The results of the gammas are presented in Table V. For the tabulation of the gammas, length of sentence was recoded into three ranks: 1 through 60 months, 61 through 299 months, and 300 months or longer (which referred to life sentences, longer than life sentences, and death sentences). Only the six categories of offenses, ranked in order of seriousness from 1 to 6, were used rather than the specific 28 offenses. Urbanism remained in three categories from rural to urban while the other six county variables were divided into two groups each above and below their respective medians.

Interestingly, the gammas tended to be higher for Cohort I. The highest partials for that cohort were between sentence and median education, sentence and crime rate, sentence and poverty level, and sentence and urbanism. For Cohort III, the highest partials were between sentence and median education, sentence and crime rate, and sentence and urbanism.

However, rough agreement existed between the partial correlations and the partial gammas concerning the ecological variables for the two cohorts except that the gammas were higher in every case. Gamma tends to be an inflated measure in that it does not correct for ties in the ranks which were considerable in these variables. Blalock (1972) discussed the tendency of gamma to be inflated.

Thus, the hypothesis that county ecological variables are positively related to length of sentence was only partially supported by the data. The results did indicate that the more urbanized the county, the longer the sentence and the higher the crime rate, the longer the
TABLE V

ZERO-ORDER AND SECOND-ORDER* GAMMAS BETWEEN LENGTH OF SENTENCE AND COUNTY ECOLOGICAL VARIABLES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I</th>
<th>Cohort III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-Order</td>
<td>2-Order</td>
</tr>
<tr>
<td>Prop. Assessment</td>
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<td>.14</td>
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<tr>
<td>Median Education</td>
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<td>Unemployment</td>
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<td>Mean Income</td>
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<td>.39</td>
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<tr>
<td>Crime Rate</td>
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<td>Poverty Level</td>
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<tr>
<td>Urbanism</td>
<td>.23</td>
<td>.34</td>
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</tbody>
</table>

*Controlling for Seriousness of Offense and Recidivism.
sentence. The use of gamma indicated that the Pearson correlations were reliable measures of the associations between the county variables and the length of sentence as the trends in the statistics were the same even though the gammas tended to be higher as one would expect.

The results for urbanism, although not strong, were in accord with Bullock (1961) and Hogarth (1971) who found that courts in urban areas tended to give longer sentences.

Hypothesis-Testing for Five Offense Categories

This section of the chapter will review the results of testing the five hypotheses for five categories of offenses. The categories included drug offenses, property offenses, sex offenses, violent offenses, and offenses with fatal consequences (homicide). The category of public order offenses was not used due to the small number of cases. Only Cohorts I and III were used due to the small number of cases in Cohort II for each offense category.

The hypotheses were tested for the offense categories because some of the past research has indicated that differences in disparity exist with different offenses. For example, Nagel (1969) found that differences existed with regard to assault and larceny. Green (1960) found that offenses that were considered either mild or grave showed the least disparity while the middle range of offenses showed the most disparity. Chiricos and Waldo (1975) found differing results in their analyses for thirteen different offenses.
Drug Offenses

The first category of offenses to be investigated was drug offenses which included in order of seriousness drug possession or driving while intoxicated, possession of drugs with intent to distribute, and drug sales. For Cohort I, 72 cases of drug offenses were present while 180 were present for Cohort III. The results of the correlation and partial correlation are presented in Table VI. Eighteen independent variables were used in the analyses—those that were available for both cohorts.

As shown in the table, the zero-order correlations between sentence length and the seriousness of the drug offense were of moderate size for both cohorts. It should be noted that the average sentence length for Cohort I was 83.95 months with a standard deviation of 95.79 while the average length for Cohort III was 42.59 with a standard deviation of 30.89. (This trend for Cohort I to have longer average sentences was evident for each offense category).

The other legally relevant variable, recidivism, did not have a substantive relationship with length of sentence. First-order partials controlling for seriousness of offense also were not substantive or statistically significant. The first-order partial for Cohort I was .17 while it was .06 in Cohort III (these figures are not reported in Table VI). Consequently, the second hypothesis that recidivism is related to length of sentence received no support in the drug offense category.

Of the three court process variables, only type of plea showed a substantive relationship with sentence while controlling for the two legally relevant variables, and this relationship existed only in
TABLE VI
ZERO-ORDER AND SECOND-ORDER* CORRELATIONS BETWEEN 18
INDEPENDENT VARIABLES AND LENGTH OF
SENTENCE FOR DRUG OFFENSES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I</th>
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<td>0-Order</td>
<td>2-Order</td>
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<td>.02</td>
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<td>.01</td>
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<td>-.02</td>
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<td>Crime Rate</td>
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<td>.16</td>
<td>.18</td>
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</table>

N=72             N=180

*Controlling for Seriousness of Offense and Recidivism.

For Cohort I a correlation of .19 or higher is significant at the .05 level.
For Cohort III a correlation of .13 or higher is significant at the .05 level.
Cohort I. However, only 13% of the drug offenders in Cohort III pleaded not guilty while 29% of those in Cohort I pleaded not guilty. Of the six demographic variables, none showed any relationship with length of sentence for Cohort III. Surprisingly, race showed a moderate second-order association with sentence in Cohort I (.31) but this result was not replicated in Cohort III. It is likely that the result was due to different patterns of drug abuse between the races although this could not be investigated due to lack of specific information about the drug offense.

Of the seven county ecological variables, only urbanism had a weak second-order association with length of sentence in Cohort III but no association was apparent in Cohort I.

The results in reference to the drug offense category showed no clear-cut associations with length of prison sentence other than the seriousness of the drug offense itself. Type of plea showed a fairly strong association in Cohort I but no association in Cohort III. Race also proved to have ambiguous results in the two cohorts as did urbanism.

**Property Offenses**

The results of the correlation analysis for the second category of offenses, property offenses, are presented in Table VII. This category of offenses included, in order of seriousness, larceny, auto theft, fraud and embezzlement, forgery, burglary, and arson. This category contained the largest number of inmates of any of the crime categories in both cohorts.

The zero-order associations for the two legally relevant variables and length of sentence offered support for the first two hypotheses.
TABLE VII
ZERO-ORDER AND SECOND-ORDER* CORRELATIONS BETWEEN 18 INDEPENDENT VARIABLES AND LENGTH OF SENTENCE FOR PROPERTY OFFENSES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I 0-Order</th>
<th>Cohort I 2-Order</th>
<th>Cohort III 0-Order</th>
<th>Cohort III 2-Order</th>
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<td>.27</td>
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<td>.08</td>
<td>.08</td>
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<tr>
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<td>Mean Income</td>
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<td>.11</td>
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<td>Urbanism</td>
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</table>

N=460

N=731

*Controlling for Seriousness of Offense and Recidivism.

Correlations of .08 or higher for Cohort I and correlations of .06 for Cohort III are statistically significant at the .05 level.
The seriousness of the property offense showed moderate associations with sentence while recidivism showed a slight association in Cohort I and a bit stronger association in Cohort III. Controlling for seriousness of offense, recidivism had a first-order correlation of .13 in the first cohort and .29 in the last.

Of the three court process variables, only type of plea showed any second-order correlation with sentence and this correlation (.49) was much stronger in Cohort I than in Cohort II (.24). Again, the inmates in Cohort III had a larger share who pleaded guilty (only 9% pleaded not guilty in Cohort III while 22% pleaded not guilty in Cohort I.)

Of the two remaining sets of independent variables, demographic and county ecological, none showed any substantive second-order associations with length of prison sentence, and no support was lend to the last two hypotheses. (Of the county variables, urbanism and crime rate showed small but statistically significant correlations with sentence).

Sex Offenses

The third category of crimes included in order of seriousness, indecent exposure and molesting, attempted rape, homosexuality, and rape. This category constituted the smallest percentages of the offense categories in both cohorts.

Table VIII presents the results of the correlations for sex offenses. Seriousness of offense showed a moderate association with length of sentence in the first cohort but only a weak (and statistically not significant) association in the last cohort. Again, the
TABLE VIII
ZERO-ORDER AND SECOND-ORDER* CORRELATIONS BETWEEN 17 INDEPENDENT VARIABLES AND LENGTH OF SENTENCE FOR SEX OFFENSES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I 0-Order</th>
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<th>Cohort III 0-Order</th>
<th>Cohort III 2-Order</th>
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<td>.22</td>
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<td>.19</td>
<td>.15</td>
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<td>-.27</td>
<td>.09</td>
<td>.07</td>
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<td>.05</td>
<td>.05</td>
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<tr>
<td>Education</td>
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<td>.15</td>
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<td>Crime Rate</td>
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<td>.23</td>
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<td>Poverty Level</td>
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<td>-.14</td>
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<tr>
<td>Urbanism</td>
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<td>.24</td>
<td>.09</td>
<td>.16</td>
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</tbody>
</table>

N=80 \hspace{1cm} N=42

*Controlling for Seriousness of Offense and Recidivism.

Correlations of .18 or higher for Cohort I and of .25 for Cohort III are statistically significant at the .05 level.
second legally relevant variable, recidivism, was found to have relatively moderate associations with sentence. While controlling for seriousness of offense, the association between recidivism and sentence was .17 for Cohort I and was .29 for Cohort III.

Of the three court process variables, type of plea showed a fairly strong second-order association with length of sentence in both cohorts which indicated that plea was particularly important for sex offenders. For Cohort I, type of attorney had a small negative second-order with length of sentence which indicated that defendants with private attorneys tended to get slightly longer sentences. However, type of attorney showed no association with sentence in Cohort III. Nevertheless, the third hypothesis that court process variables are related to length of sentence received considerable support with the variable plea for the sex offenses while controlling for the legally relevant variables.

Of the five demographic variables (sex was not included because all of the sex offenders were male in both cohorts), several variables appeared to have slight to moderate second-order correlations with length of sentence including race, age, and education in Cohort I. The second-order partial of .20 between race and sentence indicated that whites were slightly likely to receive shorter sentences than non-whites which agrees with previous research on sex offenders, primarily rape. A negative partial correlation of .27 between sentence and age indicated that younger sex offenders were somewhat more likely to receive longer sentences regardless of seriousness of the sex offense or felony recidivism. A somewhat unexpected positive partial correlation resulted between level of education and length of sentence
which indicated that the higher the education, the longer the sentence. However, this result could be due to an association between type of plea and education and this will be investigated in the next chapter.

In Cohort III, none of the demographic variables showed any substantive or statistically significant correlations with length of sentence, and it is difficult to draw any conclusions regarding demographic characteristics and sentence for sex offenses due to these contradictory results from the two cohorts.

The last set of independent variables, county ecological variables, showed some association with length of sentence in Cohort I but only slight and statistically not significant correlations in Cohort III. Median education, mean income, crime rate, poverty level, and urbanism all showed some second-order correlation for Cohort I which indicated that urbanized counties with higher median educational levels, or with higher crimes, or with higher mean incomes, or with lower numbers of residents below the poverty level were somewhat more likely to give longer sentences for sex offenses. It should be noted that all of the county variables are highly intercorrelated and may be sharing variation with sentence.

As with the previous offense categories, the results of the analysis for sex offenses were somewhat ambiguous between the cohorts with the exception of type of plea which emerged as having the most substantive association with length of sentence.

Violent Offenses

The fourth offense category, violent crimes, included assault, attempted murder and robbery. The results of the correlations are
presented in Table IX.

The seriousness of the violent crime had moderate associations with length of sentence in both cohorts which gave some support to the first hypothesis. However, the other legally relevant variable, recidivism, again showed ambiguous results in that, controlling for seriousness of offense, the correlation between recidivism and sentence was .03 in Cohort I but was .30 in Cohort III. It has been the pattern in the results so far for recidivism to be more important in Cohort III. However, it should be remembered that Cohort III contained fewer recidivists than Cohort I.

Once again, of the court process variables, type of plea had a moderate second-order partial correlation with length of sentence in both cohorts which lends further evidence to the support of the third hypothesis that court related variables are positively related to length of sentence. In addition, for Cohort I, ability to post bond showed some association with length of sentence but showed no association in Cohort III.

Of the six demographic variables, none showed any substantive second-order correlations with length of sentence in either cohort, and no support for the fourth hypothesis was evident.

Of the county variables, several showed some second-order associations with sentence in both cohorts. For Cohort I, the five variables of median education, mean income, crime rate, poverty level, and urbanism had moderate partial correlations with sentence in the same direction as they did for sex offenses. However, these partial correlations were smaller and less substantive for Cohort III.
TABLE IX

ZERO-ORDER AND SECOND-ORDER * CORRELATIONS BETWEEN 18 INDEPENDENT VARIABLES AND LENGTH OF SENTENCE FOR VIOLENT OFFENSES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cohort I 0-Order</th>
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<th>Cohort III 0-Order</th>
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<td>.01</td>
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<td>.07</td>
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</table>

N=377  
N=203

*Controlling for Seriousness of Offense and Recidivism.

Correlations of .09 or higher for Cohort I and of .12 or higher for Cohort III are statistically significant at the .05 level.
Thus, for violent offenses, the seriousness of offense and type of plea emerged as the variables which had moderate associations with length of sentence in both cohorts. To a lesser extent, the county variables associated with urbanism were found to have small to moderate second-order correlations with sentence.

Homicide Offenses

The last offense category, homicide, included manslaughter, second degree murder, first degree murder, and felony murder.

The results of the correlations for the homicide category are presented in Table X. The seriousness of the offense had a high correlation with length of sentence in both cohorts. However, recidivism did not correlate with length of sentence to any degree in either cohort. Not reported in the table, the first-order partial correlation between recidivism and length of sentence controlling for seriousness of offense was .04 in Cohort I and .12 in Cohort III.

Of the three court process variables, type of plea had a moderate second-order correlation with sentence while Cohort III had only a weak (and statistically insignificant) correlation. For Cohort I, ability to post bond also had a small second-order correlation with length of sentence but no second-order association in Cohort III.

Of the six demographic variables, sex and age both had small second-order partials with length of sentence for Cohort I, but no relationships were evident in the results for Cohort III.

Of the county ecological variables, only the poverty level measure had a partial greater than .15 for Cohort I. All of the county variables had partials of .15 or higher for Cohort III but due
TABLE X
ZERO-ORDER AND SECOND-ORDER * CORRELATIONS BETWEEN 18 INDEPENDENT VARIABLES AND LENGTH OF SENTENCE FOR HOMICIDE OFFENSES

<table>
<thead>
<tr>
<th>Variables</th>
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<th>Cohort III 2-Order</th>
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<td>.11</td>
</tr>
<tr>
<td>Education</td>
<td>-.09</td>
<td>-.10</td>
<td>.06</td>
<td>-.01</td>
</tr>
<tr>
<td>Property Assessment</td>
<td>.11</td>
<td>.14</td>
<td>-.03</td>
<td>-.27</td>
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<tr>
<td>Median Education</td>
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<td>.12</td>
<td>.15</td>
<td>.17</td>
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<td>Unemployment</td>
<td>.00</td>
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<td>.07</td>
<td>.19</td>
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<tr>
<td>Mean Income</td>
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<td>.15</td>
<td>.19</td>
<td>.15</td>
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<tr>
<td>Crime Rate</td>
<td>.11</td>
<td>.10</td>
<td>.31</td>
<td>.18</td>
</tr>
<tr>
<td>Poverty Level</td>
<td>-.16</td>
<td>-.17</td>
<td>-.20</td>
<td>-.17</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.15</td>
<td>.14</td>
<td>.25</td>
<td>.17</td>
</tr>
</tbody>
</table>

*Controlling for Seriousness of Offense and Recidivism.

Correlations of .12 or higher for Cohort I and of .23 or higher for Cohort III are statistically significant at the .05 level.
to the small number of cases, none of the correlations were statistically significant at the .05 level.

Thus, seriousness of offense emerged as the most important variable in the homicide category while type of plea, sex, age, and the county variables had ambiguous results between the two cohorts in regard to length of prison sentence.

Summary

In the correlational analyses for the three cohorts presented earlier in this chapter, it was evident that among all the variables tested against length of prison sentence, seriousness of offense and type of plea were the variables that emerged as most important in all three cohorts. Criminal history emerged as substantive in its relationship to sentence only for Cohort III.

In summarizing the results in light of the five major hypotheses, the first hypothesis which stated that seriousness of offense is positively related to length of sentence was supported by the data for the total cases in all three cohorts as well as in the five categories of offenses in Cohorts I and III. While the correlations differed among the cohorts, the associations were for the most part substantive as well as statistically significant. This result lends support to the legalistic point of view.

The second hypothesis stated that criminal history was positively related to length of sentence controlling for seriousness of offense. The results of the analyses indicated that recidivism had very little association with length of sentence in Cohorts I and II but had a moderate association in Cohort III. Among the five offense categories,
property offenses, sex offenses, and violent offenses (only for Cohort III) showed some association between sentence and recidivism. Thus, the second hypothesis was only partially supported.

Recidivism was found to be least important for drug and homicide offenses respectively which were similar to the results in the research of Chiricos and Waldo (1975). However, the fact that recidivism was not consistently related to sentence length supported previous research (Green, 1960; Chiricos and Waldo, 1975; and Eisenstein and Jacob, 1977).

The third hypothesis stated that court process variables were positively related to length of sentence. This hypothesis was partially supported in that type of plea consistently was associated with sentence while controlling for the legally relevant variables. For the most part, this relationship held among the five categories of offenses. This result gave some support to the conflict perspective and the notion that plea-bargaining influences the sentencing decisions of the judge as much as the legally relevant variables.

The fourth hypothesis stated that the demographic characteristics of the offenders were positively related to length of sentence controlling for the seriousness of the offense and recidivism. This hypothesis received virtually no support from the data analysis. No associations were apparent for the total cases in the three cohorts although some small to moderate associations were found in the drug and sex offense categories for Cohort I. Both of these offenses were in the middle range of seriousness for the offenses and Green (1960) noted that disparity was more likely to appear for offenses that were neither patently mild or grave. Consequently, with the few exceptions, the conflict assertion that offender characteristics makes a difference
in sentence length simply was not supported by the data. Other recent researchers (Hagan, 1974; Chiricos and Waldo, 1975; and Eisenstein and Jacob, 1977) also found little support for the conflict assertion concerning offender characteristics.

The last hypothesis stated that county ecological variables were positively related to length of sentence controlling for the legally relevant variables. This hypothesis received some support in that weak to moderate associations between sentence and urbanism, and sentence and crime rate were found in the three cohorts. Within the offense categories, urbanism was found to be slightly associated with sentence length. Urbanism was found to be most important within the violent offense category which supported Nagel's (1969) finding that assault cases received longer sentences in urban areas.

The next chapter will be concerned with the multiple correlations and regressions using these variables which emerged as important and substantive. Essentially, the major variables to be included were seriousness of the offense, recidivism, type of plea and county urbanism.
CHAPTER VI

EXPLAINING VARIATION IN
SENTENCE LENGTH

Introduction

The purpose of this chapter is to investigate, in more detail, the variables that were found to be associated with length of prison sentence presented in Chapter V. In these investigations, multiple correlation and regression analyses were used to assess the overall explained variation in prison sentences as well as the relative contributions of each variable. These analyses were performed only on Cohorts I and III due to the more reliable nature of the data and the fact that Cohort II contained a large number of missing cases. The explained variation can then be related to the model of the total sentence presented in Chapter III.

The last section of this chapter will consist of an attempt to construct a path model based on a time order of the variables which appeared to have a role in the determination of sentence length. Again, only Cohorts I and III were used in the path analysis for the reasons stated above.

Results of Multiple Correlations

for the Total Cohorts

For the multiple correlation and regression analyses, the
seriousness of the offense, felony recidivism (as measured by no prior felony convictions versus one or more prior felony convictions in both cohorts), type of plea, and county urbanism were the independent variables chosen as the independent variables to perform the regressions on length of prison sentence. The variables were selected from the correlations in Chapter V as having the most substantive associations with sentence length. Two legally relevant variables, seriousness of offense and recidivism, were included along with two extralegal variables, plea and urbanism. Only urbanism was included from among the county variables that correlated with sentence due to the high intercorrelations among the county variables. According to Loether and McTavish (1976), high intercorrelations among independent variables in multiple correlation and regression is a violation of assumptions. Nie, Hull, Jenkins, Steinbrenner, and Bent (1975) also discussed the problem of multicollinearity in multiple regression.

Table XI presents the results of the regressions for Cohorts I and III including the multiple correlation coefficients (R), the explained variation in sentence length ($R^2$), the change in explained variation in sentence length for each of the independent variables, and the standardized beta coefficients. The beta weights, which are somewhat similar in interpretation to partial correlation coefficients, indicate the relative effects of each independent variable while the effects of the other independent variables are statistically controlled.

For Cohort I, the two variables of seriousness of offense and type of plea together explained 46% of the variation in sentence length while recidivism and urbanism contributed virtually nothing to the
### TABLE XI

**RESULTS OF MULTIPLE CORRELATIONS AND REGRESSIONS USING LENGTH OF SENTENCE AS THE DEPENDENT VARIABLE**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Multiple R</th>
<th>$R^2$</th>
<th>$R^2$ Change</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
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<td><strong>Cohort I N=1240</strong></td>
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<tr>
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<td>.33</td>
<td>.48</td>
</tr>
<tr>
<td>Recidivism</td>
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<td>.33</td>
<td>.00</td>
<td>-.01</td>
</tr>
<tr>
<td>Plea</td>
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<td>.46</td>
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<td>.37</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.69</td>
<td>.47</td>
<td>.01</td>
<td>.11</td>
</tr>
<tr>
<td><strong>Cohort III N=1256</strong></td>
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<tr>
<td>Offense</td>
<td>.47</td>
<td>.22</td>
<td>.22</td>
<td>.43</td>
</tr>
<tr>
<td>Recidivism</td>
<td>.50</td>
<td>.25</td>
<td>.03</td>
<td>.14</td>
</tr>
<tr>
<td>Plea</td>
<td>.56</td>
<td>.31</td>
<td>.06</td>
<td>.25</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.57</td>
<td>.32</td>
<td>.01</td>
<td>.11</td>
</tr>
</tbody>
</table>

The multiple correlations are significant at the .05 level by use of the F-test. Betas underlined are statistically significant at the .05 level.
explained variation. The beta weights indicated that seriousness of offense was somewhat more important in the regression than type of plea.

For Cohort III, the results were somewhat different. The independent variables together explained 32% of the variation in sentence length which was a smaller percentage than that for Cohort I. Recidivism accounted for only 3% of the total variation in Cohort III. The beta weights indicated that seriousness of offense was the most important of the variables in the regression followed by type of plea.

For Cohort I, the results indicated that 53% of the variation in sentence length was left unexplained. Thus, if the results are conceptualized in terms of the model for total sentence variation whereby the total variation consists of variation accounted by seriousness of the offense plus variation accounted for by criminal history plus variation accounted for by judicial discretion plus variation accounted for by extralegal variables plus error variation, then the 53% of the variation which was unexplained could tentatively be attributed to a combination of judicial discretion and error variation resulting from imperfect measures and variables which were not included. The results in light of the model suggest several points. First, the variation explained by the legally relevant variable was only a third of the total variation in sentencing. Recidivism as measured here was virtually unimportant. Secondly, an extralegal variable, type of plea, by itself accounted for 13% of the variation in sentence length. Finally, 53% of the variation which was left unexplained can, conceptually, be though of as resulting from judicial discretion, other unmeasured variables such as the type of prosecutor, the judge's own personality and philosophical point of view regarding the purposes of
sentencing, other legal considerations such as the number of bills of indictment and the strength of evidence, and measurement of error.

In their multiple correlations, Eisenstein and Jacob (1977) accounted for 50% to 66% of the variation in three Northern cities which was slightly more explained variation than that in this analysis. However, Eisenstein and Jacob had information on the judges and courtroom workgroups as well as data on strength of evidence which were not available in this analysis. Eisenstein and Jacob also found that seriousness of offense accounted for more variation than any other independent variable included. They also found type of plea to be important (as did Kelly, 1976) but it declined somewhat in significance when strength of evidence was controlled.

In terms of the model, Cohort III differed somewhat from Cohort I. The total sentence variation was made up to 22% explained by seriousness of offense, 3% added due to recidivism, 7% added by the extralegal variables of type of plea and urbanism, and 68% unexplained variation conceptually attributed to the combination of judicial discretion, other unmeasured variables, and error variation. In contrast to Cohort I, recidivism showed a slight contribution to the explained variation and the influence of type of plea was less important.

Results of Multiple Correlation for the Five Offense Categories

The next step in the analyses was to perform the regressions on length of sentences for each offense category in both cohorts to determine the explained variation.
Table XII presents the results of the multiple correlation for drug offenses. Marked differences existed between the two cohorts. For Cohort I, the total variation consisted of 7% explained by seriousness of the offense, 3% by recidivism, 31% by plea, none by urbanism, and 59% of the variation was left unexplained. Since race was found to be associated with sentence within the drug offense category for Cohort I, it was added to the equation and it accounted for an additional 3% of the variation. Thus, with race included, 56% of the variation in sentence length was left unexplained.

For Cohort III, the variation consisted of 5% explained by the seriousness of the drug offense, none by recidivism, 4% by plea and urbanism and 91% unexplained variation. The major difference between the two cohorts appeared to be the importance of plea in Cohort I and its unimportance in Cohort III. Only 12% of the inmates in Cohort III pleaded not guilty. Consequently, for the drug offense category in Cohort III, a very high amount of unexplained variation was left over.

The next category of offenses to be investigated was property offenses. The results of the regression are presented in Table XIII. For Cohort I, 5% of the variation was explained by the seriousness of the property offense, 2% by recidivism, 23% by plea and urbanism, the two extralegal variables, and 70% of the variation was left unexplained. For Cohort III, 5% was explained by the seriousness of the offense, 8% by recidivism, 6% by plea and urbanism while 81% was left unexplained. Again, plea proved to have more explanatory value for Cohort I than for Cohort III and more variation was explained in Cohort I.

The next category of offenses to be investigated was the sex offenses. For Cohort I, 10% of the variation was explained by the
TABLE XII
RESULTS OF MULTIPLE CORRELATIONS AND REGRESSIONS FOR DRUG OFFENSES USING LENGTH OF SENTENCE AS THE DEPENDENT VARIABLE

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Multiple R</th>
<th>$R^2$</th>
<th>$R^2$ Change</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cohort I N=72</strong></td>
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<td>.27</td>
<td>.07</td>
<td>.07</td>
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<td>Recidivism</td>
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<td>.10</td>
<td>.03</td>
<td>.33</td>
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<td>Plea</td>
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<td>Urbanism</td>
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<td>.00</td>
<td>-.01</td>
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<tr>
<td><strong>Cohort III N=182</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Offense</td>
<td>.23</td>
<td>.05</td>
<td>.05</td>
<td>.23</td>
</tr>
<tr>
<td>Recidivism</td>
<td>.23</td>
<td>.05</td>
<td>.00</td>
<td>.06</td>
</tr>
<tr>
<td>Plea</td>
<td>.25</td>
<td>.06</td>
<td>.01</td>
<td>.08</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.30</td>
<td>.09</td>
<td>.03</td>
<td>.18</td>
</tr>
</tbody>
</table>

The multiple correlations are significant at the .05 level by use of the F-test. Betas underlined are significant at the .05 level.
### TABLE XIII

RESULTS OF MULTIPLE CORRELATIONS AND REGRESSIONS FOR PROPERTY OFFENSES USING LENGTH OF SENTENCE AS THE DEPENDENT VARIABLE

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Cohort I N=460</th>
<th>Cohort III N=729</th>
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</thead>
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<tr>
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<td>Multiple R</td>
<td>$R^2$</td>
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</tr>
<tr>
<td>Recidivism</td>
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<td>.07</td>
</tr>
<tr>
<td>Plea</td>
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<td>.29</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.55</td>
<td>.30</td>
</tr>
<tr>
<td>Offense</td>
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<td>.05</td>
</tr>
<tr>
<td>Recidivism</td>
<td>.36</td>
<td>.13</td>
</tr>
<tr>
<td>Plea</td>
<td>.43</td>
<td>.18</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.44</td>
<td>.19</td>
</tr>
</tbody>
</table>

The multiple correlations are significant at the .05 level by use of F-test. Betas underlined are significant at the .05 level.
seriousness of the sex offense, 2% by recidivism, 25% by plea and urbanism, and 63% of the variation was left unexplained. (If race, age, and educational level were included in the regression, an additional 3% of the variation would be explained.) The results are presented in Table XIV.

For Cohort III sex offenses, 3% of the variation in sentence length was explained by the seriousness of the offense, 8% by recidivism, 23% by plea and urbanism while 66% of the variation was left unexplained. Thus, for sex offenses plea proved to be equally important for both cohorts, and more variation was explained in Cohort III.

The next category of offenses to be tested were the violent offenses which primarily included assault, attempted murder, and robbery. For Cohort I, 5% of the variation in sentence length was explained by seriousness of the offense, none by recidivism, 20% by plea and urbanism while 75% of the variation was left unexplained and this figure was the most unexplained variation for any of the offense categories in Cohort I. The results are presented in Table XV for both cohorts.

For Cohort III violent offenses, 8% of the variation in length of sentence was explained by the seriousness of the offense, 8% was explained by recidivism, 9% by plea and urbanism, while 74% of the variation was left unexplained. Again, plea was less influential in Cohort III. However, a similar amount of unexplained variation was left in both cohorts. Interestingly, urbanism proved to be slightly more important in the violent offense category than in any of the others. This result was evident in both cohorts due to the beta
TABLE XIV
RESULTS OF MULTIPLE CORRELATIONS AND REGRESSIONS
FOR SEX OFFENSES USING LENGTH OF SENTENCE
AS THE DEPENDENT VARIABLE

<table>
<thead>
<tr>
<th>Independent Variables</th>
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<th>R²</th>
<th>R² Change</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>.10</td>
<td>.30</td>
</tr>
<tr>
<td>Recidivism</td>
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<td>.12</td>
<td>.02</td>
<td>.02</td>
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<td>Plea</td>
<td>.58</td>
<td>.34</td>
<td>.22</td>
<td>.49</td>
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<tr>
<td>Urbanism</td>
<td>.61</td>
<td>.37</td>
<td>.03</td>
<td>.19</td>
</tr>
<tr>
<td><strong>Cohort III N=44</strong></td>
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<td></td>
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</tr>
<tr>
<td>Offense</td>
<td>.19</td>
<td>.03</td>
<td>.03</td>
<td>.10</td>
</tr>
<tr>
<td>Recidivism</td>
<td>.34</td>
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<td>.08</td>
<td>.18</td>
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<tr>
<td>Plea</td>
<td>.57</td>
<td>.32</td>
<td>.21</td>
<td>.48</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.58</td>
<td>.34</td>
<td>.02</td>
<td>.13</td>
</tr>
</tbody>
</table>

The multiple correlations are significant at the .05 level by use of the F-test. Betas underlined are significant at the .05 level.
### TABLE XV

RESULTS OF MULTIPLE CORRELATIONS AND REGRESSIONS FOR VIOLENT OFFENSES USING LENGTH OF SENTENCE AS THE DEPENDENT VARIABLE

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Multiple R</th>
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<th>$R^2$ Change</th>
<th>Beta</th>
</tr>
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<td>.05</td>
<td>.20</td>
</tr>
<tr>
<td>Recidivism</td>
<td>.22</td>
<td>.05</td>
<td>.00</td>
<td>.02</td>
</tr>
<tr>
<td>Plea</td>
<td>.41</td>
<td>.17</td>
<td>.12</td>
<td>.34</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.50</td>
<td>.25</td>
<td>.08</td>
<td>.29</td>
</tr>
<tr>
<td><strong>Cohort III N=205</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Offense</td>
<td>.29</td>
<td>.08</td>
<td>.08</td>
<td>.24</td>
</tr>
<tr>
<td>Recidivism</td>
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<td>.16</td>
<td>.08</td>
<td>.25</td>
</tr>
<tr>
<td>Plea</td>
<td>.47</td>
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<td>.05</td>
<td>.23</td>
</tr>
<tr>
<td>Urbanism</td>
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<td>.26</td>
<td>.04</td>
<td>.21</td>
</tr>
</tbody>
</table>

The multiple correlations are significant at the .05 level by use of the F-test. Betas underlined are significant at the .05 level.
coefficient. The result replicated the findings of Nagel (1969) where urban counties tended to give longer sentences for assault than rural counties.

The last category of offenses to be tested was the homicide category. The results are presented in Table XVI for both cohorts.

For Cohort I, 21% of the variation was explained by the seriousness of the offense, none by recidivism, 10% by plea and urbanism, while 67% was left unexplained. For this last category, seriousness of the offense was more important than it was for any of the other categories.

For the Cohort III homicide offenses, 39% of the variation was explained by the seriousness of the offense, 1% by recidivism, and 2% by plea and urbanism while 58% of the variation was left unexplained. As with Cohort I, the seriousness of the offense was more influential in explaining variation for homicide offenses than for any of the other offense categories. Plea was least important in explaining variation in this category than for any of the others except drug offenses. For Cohort I, plea was also least significant in explaining variation in the homicide category than in any of the others.

Thus, the unexplained variation within the offense categories was much greater than that for the total cohort with the exception of the homicide category for Cohort III. The seriousness of the offense appeared to be much less important in explaining variation within the offense categories than for all of the offenses together. In particular, the unexplained variation within the drug and property offense categories for Cohort III was quite large indicating an inability of the variables included in this analysis to explain...
TABLE XVI
RESULTS OF MULTIPLE CORRELATIONS AND REGRESSIONS
FOR HOMICIDE OFFENSES USING LENGTH OF SENTENCE
AS THE DEPENDENT VARIABLE

<table>
<thead>
<tr>
<th>Independent Variables</th>
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<th>$R^2$ Change</th>
<th>Beta</th>
</tr>
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<td>.21</td>
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<tr>
<td>Recidivism</td>
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<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Plea</td>
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<td>.08</td>
<td>.29</td>
</tr>
<tr>
<td>Urbanism</td>
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<td>.33</td>
<td>.02</td>
<td>.12</td>
</tr>
<tr>
<td><strong>Cohort III N=53</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offense</td>
<td>.62</td>
<td>.39</td>
<td>.39</td>
<td>.55</td>
</tr>
<tr>
<td>Recidivism</td>
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<td>.39</td>
<td>.01</td>
<td>.08</td>
</tr>
<tr>
<td>Plea</td>
<td>.64</td>
<td>.41</td>
<td>.01</td>
<td>.13</td>
</tr>
<tr>
<td>Urbanism</td>
<td>.65</td>
<td>.42</td>
<td>.01</td>
<td>.14</td>
</tr>
</tbody>
</table>

The multiple correlations are significant at the .05 level by use of the F-test. Betas underlined are significant at the .05 level.
differences in sentences. For Cohort I, the least amount of variation was explained for the sex and violent offenses. Type of plea was generally more important than seriousness of the offense in explaining variation for Cohort I. However, following the trend found in the earlier results in Chapter V, the type of plea was not so important in explaining variation in Cohort III. Again, this may be due to the fact that the majority of the offenders in Cohort III pleaded guilty and the variable may not have varied enough to get a true picture of the effects of type of plea. Fewer of the offenders pleaded guilty in Cohort I. On the other hand, recidivism was generally more important in explaining variation in Cohort III than in Cohort I, and more of the inmates were recidivists in Cohort I than in Cohort III. However, recidivism did not appear to be important in explaining variation in either cohort but particularly in Cohort I.

For both cohorts, type of plea was less important in the more serious offense categories, particularly homicide and was most important in the sex crime category. Kelly (1976) also found plea to be less influential in the homicide category. Following Green (1960), it is likely that for the most serious offenses the sheer gravity of the crime overshadows other considerations such as plea-bargaining. Seriousness of offense was found to be most important in the homicide category. For sex offenses, in the middle range of seriousness for all offenses, judges were more likely to consider extralegal factors and disparity tended to be greater. Urbanism proved to be most important in the violent offense category which was similar to the findings of Nagel (1969).
Chiricos and Waldo (1975) noted that they were unable to explain more than 19% of the variation in sentence length for any of their 13 specific offenses. However, they did not include type of plea which could have added to their explained variation. Recidivism was the only legally relevant variable included in their regressions and it accounted for, at most, 5% of the variation within the offenses similar to the results here as 8% was the highest. In addition, urbanism accounted for very little of the variation in the offense categories in the results of Chiricos and Waldo. At most urbanism accounted for 7% of the variation in their research while it accounted for, at most, 8% of the variation in the present research.

Within the framework of the model of total sentence variation, for the offense categories the legally relevant variables included in this analysis appeared to account for very little variation. The variation left unexplained can be attributed to judicial discretion and to other unmeasured variables which would enter into sentencing disparity as well as the measurement errors in this research. Thus, the disparity would appear to be considerable given the results of this research. The extralegal variable, plea, is itself an indication of sentencing disparity according to non-legal considerations. However, a thorough discussion of the results in their implications for an understanding of sentencing disparity will be discussed in Chapter VII. The next section of this chapter will offer a path analytic scheme representing the four major independent variables and their effects in determining length of sentence.
Path Analysis

The final step in the data analysis consisted of an attempt to construct a causal model containing the variables that have been shown to influence length of sentence. According to Mueller, Schuessler, and Costner (1977), path analysis is a method that allows the researcher to use explicit causal assumptions in the analysis of data. The beta weights from multiple regression analyses give the numerical values to the direct and indirect effects of the causal variables. The causal ordering of the variables is usually proposed using chronological ordering of the variables.

In the previous multiple correlation and regression results, the betas for the four independent variables for the two cohorts were presented in Table XI. Each of these four independent variables, seriousness of offense, type of plea, felony recidivism, and county urbanism can be readily assumed to precede length of sentence in time order. However, seriousness of offense, recidivism, and county urbanism would also appear to precede type of plea in the criminal justice process. Thus, a regression analysis on type of plea was computed to see the relative effects of all the independent variables in addition to seriousness of offense, recidivism, and county urbanism. None of the variables other than these three independent variables in either cohort appeared to have any substantive effect on type of plea as evidenced by the beta weights from the regression. Therefore, the variables assumed to be causally related to length of sentence remained plea, seriousness of offense, recidivism, and county urbanism.
A causal ordering was then developed according to the proposed chronological order and is presented in Figure 1.

![Path Model for Length of Prison Sentence](image)

**Figure 1. A Path Model for Length of Prison Sentence**

The path model is fully recursive in that each variable is directly influenced by the variables antecedent to it in the postulated causal order (Mueller, Schuessler, and Costner, 1977). That is, plea is directly effected by the three exogenous variables preceding it: offense, recidivism, and county urbanism. Length of sentence is also directly effected by all four variables preceding it in the causal order. In addition to the direct effects of the four causal variables, seriousness of offense, recidivism, and county urbanism each have indirect effects on length of sentence through the intervening variable, plea.
The results of the path analysis for Cohort I are presented in Figure 2.

The direct effect of seriousness of offense on length of sentence was evidenced by the path coefficient of .48. In addition to this direct effect, the indirect effect of seriousness of offense mediated through type of plea was (.25 x .37) .09. Added to the direct effect, the total effect of seriousness of offense was .57. Since recidivism had virtually no effect on length of sentence (-.01) and very little effect on type of plea, the total effects of recidivism were near zero.
The indirect effect of urbanism on length of sentence through plea (.06 x .37) was .02 and the total effect of urbanism was .13.

One can see from the path analysis that a considerable amount of unexplained variation existed for plea as shown in the residual of .94. On the other hand, a little more than half of the variation was left unexplained for the variable, length of sentence. The path coefficients showed that seriousness of offense had the greatest direct effect on length of sentence (.48) followed by type of plea (.37). County urbanism had a slight direct effect (.11) on length of sentence while recidivism had virtually no direct or indirect effects on length of sentence. Also, one can see in the results of the path analysis that the three exogenous variables of offense, recidivism, and urbanism were virtually uncorrelated except for the negative association between offense and recidivism. This result indicated the fact that the majority of the offenders in public order crimes were recidivists. Thus, except for the variable of recidivism, the path analytic scheme gave a fairly good picture of the effects of the independent variables on length of sentence. The legally relevant variable of seriousness of offense had the greatest total effect followed by the extralegal variable of plea. Urbanism had a small total effect on sentence while recidivism had virtually no effect.

However, the results were somewhat different for the 1976 new admissions which made up Cohort III. The results of the path analysis for Cohort III are presented in Figure 3.

The direct effect of seriousness of offense on length of sentence was represented by the path coefficient of .43 which was only
slightly smaller than that for Cohort I. In addition to this direct effect, the indirect effect of offense through type of plea was .04 (.15 x .25) which made the total effect of offense to be .48. Recidivism showed some effect on length of sentence. The direct effect of .14 added to the indirect effect through type of plea of .04 (.15 x .25) made the total effect of recidivism .18 in contrast to virtually no effect in Cohort I. The indirect effect of urbanism through plea was near zero and the total effect of urbanism was .11
which was slightly smaller than that for Cohort I. The effect of type of plea on length of sentence was .25 which was slightly smaller than that for Cohort I.

The results from the path analysis showed that a considerable amount of unexplained variation existed for type of plea. For length of prison sentence, 68% of the variation was unexplained which was larger than that for Cohort I. The path coefficients showed that seriousness of offense, a legally relevant variable, had the greatest effect on length of sentence (while the other independent variables were held constant) followed by type of plea, an extralegal variable. Recidivism, also a legally relevant variable, and urbanism, an extra­legal variable, both had some effects on length of sentence.

Thus, the path model perhaps gave a better representation of the results for Cohort III even though a greater amount of unexplained variation was left over for this Cohort. The major differences in the results for the two cohorts were that recidivism had very little if any effects on length of prison sentence for Cohort I while it had some effect in Cohort III and that type of plea had a greater effect on sentence for Cohort I than it did for Cohort III. The results indicated as did the earlier results from the multiple correlations that seriousness of offense was the most important variable related to length of sentence. Thus the legalistic point of view was vindicated in part. On the other hand, type of plea, an extralegal variable was the next most important variable and the conflict per­spective was offered some support.
CHAPTER VII

DISCUSSION AND CONCLUSIONS

Summary of the Study

The purpose of this research study was to examine length of prison sentences and sentencing variation drawing from both the legalistic and conflict perspective and using both legally relevant and extralegal independent variables. The legalistic perspective, rooted in the consensus model of the justice system as developed by Pound (1922; 1942), holds that the criminal justice system operates according to rational principles as defined by law. The legalist view law as reflecting the needs of a well-integrated and ordered society as well as means to improve the social order. The legalistic perspective denies the importance of power and influence among the upper-class members of society in determining the nature of law and the criminal justice system. Edward Green (1960; 1961; 1964) wrote that the legally relevant factors such as the seriousness of the offense and the prior record of the offender carried the most weight in determining the type of sentence handed down by the judge. He felt that the decisions of the sentencing judge were not at the mercy of "passions and prejudices" but rather mirrored rational processes in accordance with the criteria for sentencing recognized by law (Green, 1960:437).

On the other hand, the conflict perspective, which grew out of
the Marxist approach to the understanding of society based on power and coercion used by members of the ruling class to dominate those below them, emphasizes the extralegal factors in sentencing rather than the legally relevant factors stressed by the legalistic perspective. Various conflict theorists such as Chambliss and Seidman (1971) and Richard Quinney (1969; 1970) assert that extralegal factors such as the demographic characteristics of the offenders which identify them as members of the lower classes such as race, education, sex, and others, the organizational needs of the court system, the biases and personality traits of the sentencing judge, and geographical and ecological factors surrounding the court are the important factors that determine judicial decisions of the sentencing judge.

Basically, the two theoretical views differ in matters of emphasis and each recognizes the emphasis of the other. Green, for example, had to acknowledge that legal factors could not account for all sentencing variation and that disparity does exist in sentences handed down by the courts. On the other hand, conflict theorists such as Chambliss and Quinney conceded that sentencing decisions do take place within the framework of the law but that framework allows for the intrusion of extralegal factors.

A review of the research studies in the area of sentencing decisions and sentencing variation found that the results were often contradictory. In regard to the legalistic hypothesis that legally relevant variables account for a substantial amount of sentencing variation, several researchers (Green, 1960; Harries and Lura, 1974; Chiricos and Waldo, 1975; Eisenstein and Jacob, 1977) found support for
the legally relevant variables such as type or seriousness of the offense and the criminal history of the offender. In addition, Hagan (1974) critiqued a number of earlier studies which had claimed relationships between sentences and extralegal variables and found that many of the results of these studies were due to legal variables that were not controlled. Hagan also found that many of the researchers had improperly used and interpreted statistical results in their studies.

On the other hand, much of the research appeared to focus on the extralegal variables (Sellin, 1928, 1935; Martin, 1934; Bullock, 1961; Jacob, 1963; and Partington, 1965). Some researchers found extralegal variables to be related to sentence. Nagel (1969) found education and indigency to be related to sentence. Harries and Lura (1974) found type of counsel, jury trial, and median time before trial to be important. Hogarth (1971) found that various judge-related variables were significant as well as the community characteristics surrounding the courts.

Thus, the previous literature indicated some support for both theoretical perspectives. Consequently, both points of view provided direction to this research.

The basic design of this research involved the use of three sets of data obtained from the classifications department of the Oklahoma State Penitentiary at McAlester and the Oklahoma Department of Corrections. The first cohort was made up of the 1975 prison population. The second cohort was made up of the 1975 parole releases from the state prison. The third cohort was made up of the new admissions to the state prison during the first six months of 1976. Since the data were provided by state authorities based on their information and statistics, the variables for study in the cohorts could not be constructed in the
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ideal manner. Rather they were dependent on the information provided.

The dependent variable to be studied was length of prison sentence. The various independent variables were grouped in four categories: legally relevant variables including the seriousness of the offense and recidivism, court process variables such as type of plea and type of attorney, offender demographic characteristics, and county ecological variables. The first category of independent variables were those stressed by the legalistic hypothesis while the remaining three categories made up the extralegal variables in the analysis and grew out of the conflict point of view.

The analysis of the data involved finding, through correlational analysis, those variables which were most associated with sentence length. Then using those variables found to have substantive relationships, multiple correlation and regression analyses were performed on length of sentence in order to explain sentencing variation. A conceptual model of the components that make up total sentencing variation was devised as a framework for the understanding of sentencing disparity in length of prison sentences. Essentially, the model suggested that the variation not accounted for by the legally relevant variables (one of which was unmeasured and that was judicial discretion) and the measured legally irrelevant variables could theoretically be attributed to the combination of unmeasured variables such as judicial discretion and the philosophy and personality of the sentencing judges as well as measurement error. The model also suggested that sentencing disparity was reflected in the variation accounted for by the extralegal variables and in part in the error variation. The five components in the model
included the variation explained by the seriousness of the offense, the variation explained by the criminal history of the offender, the variation explained by the extralegal variables, the variation attributed to judicial discretion, and error variation due to unmeasured variables and measurement error.

In the results of the correlational analysis, it was found that among all variables tested for three cohorts, seriousness of the offense and type of plea were most associated with length of prison sentence. To a lesser extent, criminal recidivism and county urbanism were also associated with length of prison sentence. The variables under the category of demographic characteristics showed very little association with length of sentence regardless of whether or not the legally relevant variables were controlled. Only in several of the offense categories for Cohort I did any demographic variables have any relationship with length of sentence. These results are in direct contrast to the conflict assumptions regarding class, minority status, and power.

The results of the correlational analysis within the five offense categories for Cohorts I and III showed ambiguous results in that type of plea was consistently more important in Cohort I than in Cohort III while recidivism was consistently more important in Cohort III than in Cohort I. However, the inmates in Cohort III pleaded guilty more often than those in Cohort I, and the inmates in Cohort I were more likely to be recidivists than those in Cohort III. Within the offense categories, the correlations between seriousness of offense and length of sentence were smaller than those for the total cohorts.

The results of the multiple correlation and regression for Cohorts I and III using the four independent variables of seriousness of
offense, felony recidivism, type of plea, and county urbanism showed that seriousness of offense accounted for the most variation in both cohorts. Following seriousness of offense in importance was type of plea in both cohorts. The total variation accounted for by the four variables in Cohort I was 47% while 32% was explained in Cohort III. These results, viewed in terms of the model of total sentencing variation, indicated that a legally relevant variable (seriousness of offense) as postulated by the legalistic perspective accounted for the most variation, but an extralegal variable (type of plea) also accounted for a considerable amount of variation. Consequently, both theoretical points of view received support from the results of this research. The results indicated that given the legally relevant variables measured in this study, sentencing disparity is still quite apparent. The fact that the extralegal variable of plea was significant in the results hinted at disparity in order to achieve the organizational and bureaucratic needs of the criminal justice system as expressed by Chambliss and Seidman (1971), Blumberg (1967), and Quinney (1969; 1970). However, the research indicated that the demographic variables of the offenders did not contribute to sentencing disparity as suggested by the conflict theorists. Of the county ecological variables, the degree of urbanism of the sentencing county was slightly important in determining length of sentence as evidenced in the path analytic scheme presented in Chapter VI.

Sentencing disparity was also partially evident in the high amounts of unexplained variation for both cohorts (53% in Cohort I and 68% in Cohort III). That is, with the legally relevant variables used in this research accounted for, a considerable amount of variation
is then left to unmeasured legal variables such as judicial discretion concerning the mitigating factors of the offense, the nature and strength of evidence against the offender, the number of bills of indictment, and more detailed information about the criminal history of the offender. The unexplained variation could also be attributed to extralegal variables that were unmeasured such as the personality and legal philosophy of the judge, the characteristics of the attorneys involved, the demeanor and appearance of the offender, and political and bureaucratic pressures on the courts. Certainly no conclusions can be drawn about the unexplained variation given the unmeasured variables and measurement problems and errors in the research. Nevertheless, the fact that seriousness of the offense, considered to be the most important determinant of length of sentence, accounted for 22% of the variation in Cohort III and 33% of the variation in Cohort I might indicate that many other factors in judicial decisions combine to be more important in determining sentence length.

Limitations and Problems of the Research

As with any social research, this study and its results are not without its problems. As mentioned above, a number of important variables were either unmeasured or were measured poorly. Several legally relevant variables were unavailable from the classifications department at the penitentiary or from the Department of Corrections. These variables included the number of bills of indictment, the nature of the evidence, and a more complete picture of the criminal history of the offender. The measure of recidivism used in this research was a dichotomous one referring to whether or not the inmate had been
previously convicted of a felony. Consequently, no information concern- 
cerning the number, nature or seriousness of the previous offenses was available.

Several extralegal variables were also unavailable for use in this study. Of considerable importance was that the personality of the judge, his legal philosophy concerning the goals of sentencing and individualized justice, his background, and his educational history were unavailable for use. Hogarth (1971) found all of these factors to be important in a judge's sentencing decisions.

In addition, of crucial importance was the fact that information about the prosecutors was also unavailable for study. In most cases of plea-bargaining, judges depend on the recommendations for sentencing by the prosecutors. Consequently, it should be critically important to know the pattern of bargaining developed by the individual prosecutors and their tendencies to be either lenient or severe in handling guilty pleas. The concept of prosecutorial discretion and bargaining could aid a great deal to the understanding of sentencing disparity.

Another problem in this research pertained to Cohort II. Originally the cohort was included because it was hoped that factors influencing parole could be studied. However, the data were characterized by many missing values for the variables included which led to problems in the data analysis. In addition the data appeared unreliable to this researcher given the nature of the raw data provided by the Department of Correction. In the computer printout provided, it was impossible to tell the difference between a value coded as missing by a zero and a value that was meant to be the value of zero. For example for a variable of number of juvenile incarcerations, it was impossible to
tell if a zero meant no previous incarcerations or if it meant no data were available for that particular parolee. In addition to the problem of coding, the cohort contained no information on how long the parolee had been an inmate in the penitentiary before he was paroled so it was impossible to look at disparity in actual time served. As a result of these problems in Cohort II, the data was used sparingly in the data analysis. That is, the cohort was used only in the hypothesis-testing in Chapter V and the results were not too different from the other two cohorts.

Another major limitation of this research concerns sentencing disparity and the conclusions to be drawn about it. While the purpose of this research was to look at sentencing variation in length of prison sentence, there is no doubt that much more disparity exists before offenders get to prison. That is to say that disparity in handing down sentences of probation, suspended, or deferred sentences as opposed to prison sentences probably does exist. However, this research can tell us nothing about that kind of disparity. This research does give some insights into disparity in prison sentences, particularly with reference to type of plea, but it cannot give a total picture of sentencing disparity including disparities in giving non-prison sentences.

Finally, the problem of measurement error should be addressed. There is no doubt that measurement problems existed in this research. For example, seriousness of offense could be measured in a variety of ways using different crimes or a more complex list of crimes used in rating seriousness. A different measure of seriousness of offense might lead to considerably different results. Different measures for the county ecological variables other than the rank-order ones used
in this research could lead to different results. In addition, a more complex measure of urbanism could possibly give a better picture of the relationship between length of prison sentence and the rural or urban nature of the sentencing county. In any case, the results of this study are in part dependent on the measures of the variables used and the results must be interpreted in that light.

**Disparity and Suggestions for Remedy**

A number of authors have put forth suggestions for remedying the pervasive problem of disparity in criminal sentencing. According to the National Council of Judges (1974: 62-63), "disparity cannot be eliminated altogether because men do not react in the same manner to the same set of facts." However, the Council went on to state that disparity can and should be reduced to the point where it is no longer a social and legal problem. The Council reviewed two methods of reducing sentencing disparity.

The first method referred to the creation of sentencing institutes and councils. Sentencing institutes would provide educational programs to improve sentencing proficiency and provide judges with the opportunity to communicate with their colleagues in order to get new perspectives and ideas. Sentencing councils or panels, in which several judges review and discuss the presentence report and the desirable sentence, would also help to reduce disparity.

The second method reviewed by the Council of Judges was appellate review of sentences where higher courts review sentences for excessive-ness and inequality. Today, appellate review of sentences is the exception rather than the rule for most states and the sentencing
power is vested solely within the discretion of the trial judge. The Council of Judges rejected automatic uniformity in sentences but considered appellate review to be a positive step forward in reducing disparity.

Dawson (1969) considered two broad approaches for minimizing disparity which differed somewhat from the Council of Judges. According to Dawson, the first general approach to reducing disparity would be to re-allocate responsibility for sentencing and eliminating or limiting judicial discretion. This approach is reflected in legislatively fixed maximum sentences which would be uniformly imposed in all cases. Appellate review of sentences is related to this effort to re-allocate responsibility for sentencing.

According to Dawson (1969) the second general approach would be to retain the broad discretionary powers of trial judges but to better equip him to impose consistent sentences. This approach is similar to the one discussed by the Council of Judges concerning sentencing institutes and panels. Dawson noted that problems exist in both efforts to minimize disparity. The legislatively fixed sentence can still be manipulated by the prosecutor in deciding which offense to charge the accused. Plea-bargaining can still result in disparity despite flat sentencing. Dawson noted that appellate review of sentencing also does not solve the problem of disparity. Despite the hope of its proponents, appellate review had not resulted in the development of sentencing principles through court opinions explaining sentence reductions. Rather, appellate review has simply served the limited function of providing a check on unduly severe sentencing.
Dawson also criticized the sentencing institutes in that, at most, they provide a forum for the exchange of views but only indirectly assist judges in deciding sentences for concrete cases. Dawson noted that sentencing panels also have inherent limitations. Since the panel requires a multijudge court it is effectively limited to urban areas where more than one judge presides. In addition, sentencing panels only reduce disparity for that particular court.

Orland (1975) summarized the two approaches to minimizing disparity as the radical and reformist approaches. The radical approach advocates abolishing indeterminate sentences and parole boards and setting legislatively fixed sentences according to the degree of seriousness of the offense. Orland pointed out the advantages of the radical approach which included an end to wide sentencing disparity and the reduction of the effects of plea-bargaining.

According to Orland, the reformist approach advocates leaving the sentencing structure as is but would require the sentencing judge to state justifications of sentences in writing. In addition, the reformist approach advocates appellate review of sentences.

Since this research found type of plea to be important in relation to length of sentence, it should be noted that Rosett and Cressey (1976) have advocated forcing the hidden negotiations of plea-bargaining into the open. Since plea negotiation is the central technique for settling cases in American courts and since abolishing it would be disastrous in that the system could not accommodate the overload of trials, a system of justice more impartial than current plea-bargaining procedures allow is required. Rosett and Cressey felt that if plea-bargainings were made public, the attorneys and the judges would make an effort to be
more just in their dealings.

Dawson (1969: 218) noted that each proposal for reducing the problem of sentencing disparity approach the problem from a different direction and can only deal with aspects of the problem. "No one proposal is itself capable of dealing with the problem; and it may be doubted that all of them together... are capable of dealing with it."

Thus, Dawson recommended that efforts continue in searching for methods of reducing disparity in the criminal justice system.

Conclusions

The results of this research showed that seriousness of offense and type of plea were the variables which had the major impact on sentencing variation. Felony recidivism and county urbanism were slightly related to length of sentence but had nowhere near the impact of the first two variables. Consequently, the legalistic and conflict approaches both received partial support from the data. The legally relevant variable, seriousness of offense, appeared to have the largest impact on length of sentence. However, type of plea as an extralegal variable had a substantial impact on sentence in that those who pleaded guilty tended to receive less severe sentences. Thus, the conflict perspective was supported in part. The results showed that neither perspective was completely right and that a blending of the two best explains sentencing variation. That is, both legally relevant and extralegal variables enter into the decisions of the judge. In addition, the results showed that a considerable amount of variation was left unexplained by the variables included in this study.

The implications for further research on sentencing disparity are
that a wider range of variables are needed to understand disparity and that more careful measures of the legally relevant variables such as recidivism and the circumstances that are unique to the offense need to be used. Moreover, since type of plea emerged as an important determinant of sentence, the factors influencing plea and the circumstances in plea-bargaining need further study. It is likely that many factors have an impact on both type of plea and length of sentence that were not considered in this research. For example, the characteristics of the judge and the attorneys or their philosophies were not included. In addition, the social-psychological inputs such as the interaction among the court personnel and the offender were not included. The offender's demeanor and presentation of self were not considered. Moreover, various factors such as the "queuing effect" (Eisenstein and Jacob, 1977: 278) where the defendant's sentence is influenced by the type of defendant's offenses which preceded his and the symbolic rewarding of sentences to lawyers for a job well done were not included in this research. Consequently, much work is yet to be done in order to understand all the factors that play a role in determining sentencing disparity.

Regardless of the shortcomings of this research, through the use of the conceptual model of sentencing variation, a more complete understanding of the broad components which are involved in sentencing was offered. In addition, the results of the research clarified the idea that both legal and extralegal factors are involved in sentencing decisions, at least in the case of sentencing in Oklahoma. Nevertheless, much more research using a broader range of variables and in different sections of the country needs to be done.
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