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thesis entitled

THE INFLUENCE OF LEGAL AND EXTRA-LEGAL FACTORS
ON SENTENCING DISPOSITIONS IN
RURAL, SEMI-RURAL AND URBAN COUNTIES

presented by

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has been accepted towards fulfillment
of the requirements for

PH.D. degree in SOCIAL SCIENCE/INTERDISCIPLINARY

Marvin Solomon
Major professor

Date 5-18-79

THE INFLUENCE OF LEGAL AND EXTRA-LEGAL FACTORS ON SENTENCING DISPOSITIONS IN RURAL, SEMI-RURAL AND URBAN COUNTIES

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

College of Social Science/Interdisciplinary

1978

ABSTRACT

THE INFLUENCE OF LEGAL AND EXTRA-LEGAL FACTORS
ON SENTENCING DISPOSITIONS IN
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The purpose of this study was to examine the effects of court setting on criminal sentencing. Previous research in both the field of rural-urban sociology and public policy/decision making suggested that difference in location of the sentencing court might result in different sentences being imposed on criminal offenders. Review of the criminal sentencing literature located several relevant research studies which had previously focused on the rural-urban factor and criminal sentencing. The findings from those studies coupled with the conceptual linkages between rural-urban attitudes and values, public policy/decision making and judicial sentencing provided a rationale for advancing two general hypotheses specific to the type and length of sentence imposed on convicted offenders in rural, semi-rural and urban courts.

Data for the study consisted of a primary sample of 1664 convicted Iowa felony offenders derived from archival sources including the Iowa Division of Adult Corrections and the Bureau of Correctional Evaluation within the Iowa Department of Civil Services. The major finding from the study was that in urban courts legal considerations were of greater

importance than extra-legal in accounting for the sentences received by offenders, while in rural and to an extent in semi-rural courts as well, the opposite was true. The findings from the study contain a number of theoretical and practical or policy-related implications regarding criminal sentencing and the rural-urban dimension.

DEDICATION

To Karen Sue

Remember the good times
Remember the bad
Remember both gave us
What we'd otherwise not had.

ACKNOWLEDGEMENTS

With few exceptions ones accomplishments in life are achieved through the time and effort of others. Completion of this project was no exception to that principle, and while formal acknowledgement of the time and effort of others is gladly given here, it can, at best, only convey a small portion of my total gratitude and appreciation.

First, to the members of my dissertation committee: Dr. John Aldrich, Dr. Allan Beegle, Dr. Tim Bynum, and last but of no means less in importance, Dr. Marve Zalman committee chairman; your comments, advice and guidance were greatly appreciated.

To close friends Eva Buzawa, Vince Hoffman, and Howard Timm a special thank you for moral support, encouragement, and scholarship whenever it was needed or asked for.

To the School of Criminal Justice and to Dr. John Hudzik, responsible for administrating the LEEP fellowship grant to Michigan State University, my deepest thanks for the needed financial support.

To Roger Steggerda and members of the 1976-1977 Iowa Advisory Commission on Corrections Relief who provided a job when it was most needed and then permitted me to use the Commission's data for my own need, thank you.

Finally, to Dr. John McNamara whose guidance and advice I have always appreciated.

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CHAPTER I

CRIMINAL SENTENCING AND DISPARITY

Few aspects in the administration of criminal justice has received quite so much attention among members of the legal community as has the sentencing of convicted offenders. While traditionally a principal concern of jurists and students of the judiciary, sentencing policies of criminal courts have recently become a topical issue for both administrators of other agencies within the criminal justice system and in some respects, the general public as well. Commentators in both the national and local media are increasingly pointing to what appears to be a lack of fairness in the sentences imposed on what look like similar cases. Criminal justice administrators although publicly stating concern over the issue of fairness appear to focus more, at least among themselves, on the negative ramifications that uneven sentences of similar cases has for administration and management of their own and other criminal justice agencies. A principal reason recently advanced for the increasing number of 'prison riots', is the lack of consistency of criminal courts in sentencing offenders with similar characteristics to similar lengths of incarceration (Fogel: 1975; p. 200).

Studies of variation in criminal sentencing or as it is commonly called, sentencing disparity, have existed since the late 1920's when Thorsten Sellin formally introduced the topic for research. In the half

century since, numerous investigations have been undertaken. Most of these investigations have generally approached the topic in either one of two ways: 1) from a legalistic viewpoint stressing factors emphasized in the official normative descriptions of the criminal justice system including the offenders prior criminal record and the nature and number of charges presently brought against him or, 2) from a sociological viewpoint emphasizing particularly the role of extra-legal factors such as the age, race, sex and SES of the offender and the manner in which they influence the sentencing decision (Hagan: 1974; p. 358). While these approaches to the topic differ theoretically, both viewpoints routinely employ both legal and extra-legal characteristics or factors in their analysis. The mode of analysis in such studies is to treat one or more of the extra-legal factors as the major variable of interest while holding constant the legal factors associated with the offender and his offense. Any differences in sentencing, the dependent variable, which cannot be explained by the legal factors particular to the offenders are normally attributed to the policies and practices of the sentencing court (Hogarth: 1971; p. 10). The term sentencing disparity is then used to connote and describe these differences in outcomes as measured by either the type or severity of the sentences imposed.

Although a number of studies using this approach have uncovered evidence of disparity in sentencing outcomes by employing extra-legal factors, the total evidence accumulated thus far seems to be ambiguous and appears to shed little light on the issue of sentencing disparity

since there also exists studies that have failed to uncover any evidence of disparity in sentencing outcomes. In reviewing these discrepant results, Hindelang (1969), suggests that they may be accounted for by idiosyncrasies particular to the studies themselves. He observed that studies uncovering evidence of sentencing disparity were primarily based on data from southern states and that on the average these studies were conducted ten years prior to those studies finding no evidence of disparity in sentencing outcomes (Hindelang: 1969; p. 310). Moreover, the studies generally focused on only a few types of offenses, usually homicide, and in general failed to use control variables in the analysis.

Echoing Hindelang's observations regarding the ambiguity and uncertainty on the reality and extent of sentencing disparity, Hagan (1974), in a more recent assessment employing a sample of 20 sentencing studies spanning the past half century, concluded that while "the original articles often suggested the occurrence of unjust discrimination ... our analysis has frequently indicated the weakness of evidence supporting such inferences" (Hagan: 1974; p. 379).

The basis for Hagan's conclusion rested on methodological and conceptual limitations associated with an overreliance on tests of statistical significance. In the first instance, the problem is one of differentiating between the existence of a relationship and the strength of that relationship. Given a large enough sample of cases as is usually the situation in sentencing studies the greater the likelihood that a portion of the cases differ among one another. That is, in a large sample of cases it can normally be expected that greater heterogeniety

or differences exists among cases than in a smaller sample of such cases. Tests of statistical significance, however, are in part a function of sample size. When a sample is large the opportunity for cases to differ among one another is increased. For statistical significance to exist these differences do not have to be numerous, rather, they only have to exist among a relatively small number of cases. The opportunity for this relative difference to occur is greater in large samples than in small ones.

Different from the question--does a relationship exist?--is the issue of its strength; that is, how strong is the relationship? A relationship may be statistically significant at some accepted level of risk, usually 5 percent, while the strength of the relationship may be quite weak. For example, in several of the studies reviewed by Hagan, an association of $r = .05$ was reported between race and type of sentence and the relationship was reported as statistically significant at the .05 level. Although meeting the criterion of statistical significance, the association of $r = .05$ between race and type of sentence nonetheless explains or predicts less than one percent of the sentencing variation. That is, knowledge of an offender's race increases knowledge of the type of sentence by less than one percent. While such a finding has potential import for formulation and implementation of social policy, it contributes relatively little to the overall explanation and understanding of why sentencing disparity exists and the conditions under which race, for example, might influence sentencing outcomes. To report only that an association is statistically significant while overlooking

a discussion of the strength of that association somehow seems to misrepresent the true nature of the relationship.

The second problem deals with the conceptual limitations associated with tests of statistical significance. While such tests may legitimately report that a statistically significant relationship between an independent legal or extra-legal variable and a dependent sentencing outcome variable exists, such a finding in no way rules out alternate explanations of variation in the dependent variable. Conceptually, it is possible that the original relationship between an independent and dependent variable remains a function of a third factor or set of factors, operating either independently or in conjunction with the independent variable. Thus, while the original relationship may be statistically significant this fact alone does not eliminate the possibility that a more viable and detailed explanation of the original relationship exists.

With respect to the majority of previously conducted sentencing studies, this is a major problem. A tendency of previous studies to erroneously equate tests of statistical significance with causality, while concomitantly assuming that only legal and extra-legal factors associated with the offender and his offense contribute to the sentencing decision, may, as one observer concludes: "... misguidedly encourage a premature end to the data analysis process and result in the assignment of false importance to spurious findings" (Hagan: 1974; p. 362). As a consequence of this failure to consider alternative explanatory hypotheses, coupled with a penchant for relying on tests

of statistical significance as the basis for establishing the existence of sentencing disparity, previous studies using this approach have failed to adequately and sufficiently demonstrate the reality and extent to which sentencing disparity prevails, if in fact it does at all.

Because of the continuing controversy surrounding sentencing disparity, fueled in part by the conceptual and methodological limitations discussed above, recent investigations have been broadened in their approach and thus their research design, to include a larger number of factors in the analysis. While this broader conceptual approach is partially a reflection of the inadequacies of previous research efforts, it appears that the underlying impetus for the broader framework rests, in part, in two more recent developments, one particular to the field of criminal justice, the other to research in general. With respect to the field of criminal justice, the last decade has been characterized by an unprecedented effort at all levels of administration to expand existing data-bases within the criminal justice system, while at the same time developing new data-bases in areas previously considered to be of little or no consequence to the administration of criminal justice. National victimization data, state offender-based transaction data and local information systems represent a few examples attesting to this effort. In turn, this effort has made available to the research community data either heretofore unavailable or if available somewhat incomplete. As a result of these new and more complete data-bases, research efforts have been able to include a broader range of conceptually relavant information into the research design.

In addition to the availability of new and more complete data bases, sophisticated techniques for analyzing such data, which prior to the widespread availability of computers were cumbersome and somewhat impractical to employ, have afforded research efforts the opportunity to consider a broader range of potentially relevant variables and to incorporate these variables into their research design and subsequent analysis. Earlier studies, such as those reviewed by Hindelang and Hagan, employed what can generally be labeled as descriptive analytical design, characterized by a tabular format of data analysis. While these studies incorporated bivariate and in some instances trivariate techniques into their analysis of the data, they were generally limited to investigation of one or two concepts thought to be associated with the phenomena being studied. On the other hand, a number of the more sophisticated techniques of multivariate analysis permit a larger number of conceptually relevant variables to be incorporated into the design and subsequent analysis, while at the same time maximizing the possibility that the data base itself will not be exhausted, a situation inherent in the tabular mode of analysis.

As a consequence of these innovations and developments and the conceptual and methodological limitations of previous sentencing studies, recent studies of criminal sentencing have emphasized what can conveniently be labeled environmental factors and their impact on sentencing. Whereas the majority of previous studies concentrated on legal and extra-legal offender attributes and their impact on sentencing outcomes, environmental factors focus attention upon variables conceptually assumed

to be operating in the context of sentencing, but which are neither quite as visible nor as assuming as the legal and extra-legal offender attributes. Although the precise nature of their role remains uncertain, and conceptually their impact on sentencing outcomes is probably indirect, environmental factors manifest themselves empirically in a wide variety of ways and conceivably include such variables as the crime and unemployment rate, the manner in which judges are selected, the administration and management of court activities, and the ethnic and cultural characteristics and habits of the populous, to cite only a few. While the number of these factors is potentially quite large, it seems reasonable to assume that not all factors are operating simultaneously in any one court, nor are they of equal gravity to all courts. As an example, consider the following situation: A high crime rate in an urban area might have minimal impact on sentencing policy since a high crime rate might be viewed as an accepted consequence of urban life; whereas, in a rural area an increase in what was considered a low crime rate to begin with might be regarded as a threat to local norms and customs with the consequence that criminal violations are dealt with more harshly by the sentencing court. Thus, rather than it being solely the policies and practices of the court that accounts for variation in sentencing policy it is conceivable that differences are in part shaped and influenced by environmental factors situational to the sentencing courts. Stated otherwise, environmental factors may help to define more specifically the components that actually constitute the policies and practices of the sentencing court.

Support for the view, that the policies and practices of criminal courts are influenced by environmental factors, while not overwhelming, does exist. In a recent study of North Carolina trial courts, Williams and Richardson (1970), found that for certain crimes committed in counties where the proportion of blacks in the population was greater than 20 percent, harsher sentences were disproportionately imposed on black than on white offenders. Conversely, in those counties where the proportion of blacks was less than 20 percent, blacks, although still receiving disproportionately harsher sentences than whites, were more likely to receive more lenient sentences than blacks residing in counties where the proportion of blacks in the population exceeded 20 percent. The authors then go on to point out that, "The administration of criminal justice exists as part of a larger cultural environment in which local attitudes and values will influence decision making" (Williams and Richardson: 1970; p. 68).

A number of other studies have also uncovered linkages between environmental factors and sentencing outcomes. In an earlier study undertaken in England, Hood (1962), concluded that "the imprisonment policies of magistrates appears to be related to the social characteristics of the area [i.e., the judicial districts] the social constitution of the bench, and its particular view of the crime problem" (Hood: 1962; p. 119). The implication of this conclusion is that judicial practices and policies may be determined, in part, by factors particular to the environment within whose context the court exists and operates.

More recently, Levin (1977), in a study comparing sentencing outcomes from two large metropolitan areas located in different states, concluded that differences in type as well as length of sentence between similar offenders from the two areas appears, in part, to be influenced by the different political cultures operating in the two cities; in one city there exists a traditional partisan system of government, in the other a non-partisan system characterized by a reform ethos (Levin: 1977; pp. 150-154). Again, the implications of the conclusions are worthwhile mentioning since they imply that variations in sentencing outcomes are, in part, affected by environmental factors; in this case judicial recruitment, which is itself linked to the political environment and its associated selection processes. Moreover, one might be led to surmise that if the political environment exerts an influence on judicial recruitment of judges who possess certain values and beliefs consistent with that political environment and culture, then a real possibility also exists that those values and beliefs influence judicial sentencing outcomes. Although Levin does not directly support such an argument, since his data did not extend itself to allow for a test of this hypothesis, the implication nonetheless pervades his conclusions.

The role of environmental factors and their potential for providing greater insights into the reasons why sentencing disparity might exist, while somewhat tentative, appear to be a promising avenue of study. They go beyond the traditionally considered legal and extra-legal factors which more or less tacitly assume that environmental factors do not contribute significantly to either an explanation of

sentencing disparity nor to an understanding of the sentencing process. In the pages and chapters to follow I will discuss and investigate how one environmental factor, the degree of variation in rural-urban composition might influence criminal sentencing dispositions.

Defining the Problem

In March of 1977 a report based upon a study commissioned one year earlier by the 67th General Assembly of Iowa was presented to that group. Entitled "Adult Corrections in Iowa", the report represented an assessment of the 'state of the art' of adult corrections in Iowa and contained a number of recommendations for correctional policy development in the coming decade. A number of the recommendations including reduction of the institution population and greater emphasis on community based corrections were predicated, in part, on the conclusion that differences in criminal sentencing among the eight judicial districts within the state might be due to different sentencing policies of the judiciary in each district (Advisory Commission on Corrections Relief: 1977; p. 78). The basis for the conclusion rested on the finding that "sentencing disparities among the judicial districts, as indicated by rates of incarceration, cannot be explained by the amount of criminal activity, number of arrests, or conviction rates; nor can they be explained by variances in the characteristics of the offenders" (Ibid.; p. 75). In undertaking the analysis however, a number of potentially relevant considerations appear to have been overlooked. Notable is the absence of the county as a consideration in any of the analyses.

Thus, disparities in sentencing outcomes attributed to the policies and practices of the judiciary in each district, might be clarified and consequently the nature of these judicial policies and practices further defined, if the county in which the sentencing decision occurred was considered in the analysis.

Although the state of Iowa is divided into eight judicial districts these divisions represent administrative decisions and for practical purposes, the districts do not differ significantly from one another on major social, cultural and other types of indicators. While such a broad characterization in no way rules out the possibility that some subtle differences may exist, any difference among the judicial districts are neither marked nor intentional, save for judicial administrative convenience, and in general the districts are more homogeneous than heterogeneous; that is, the judicial districts show greater similarity than difference to one another in their demographic characteristics. Five of the 99 counties in the state contain populations that exceed 100,000, yet all five counties are located in separate judicial districts. Similarly, 14 of the counties representing seven of the eight judicial districts contain populations numbering under 10,000 inhabitants.

In addition to population data suggesting greater aggregate homogeneity than heterogeneity among judicial districts, there exists other indicators as well. The percentage difference between the highest and lowest unemployment rates for the eight judicial districts is 3.2 percent. The reported crime rates among the eight districts range from a low of 30.0 per 1000 inhabitants to a high of 50.0, a difference of 20.0 per

thousand population. The difference in the arrest rate between the lowest and highest judicial district is 1.5 per 1000 population, while the percentage difference of reported crimes cleared by arrest is 5.8 percent.

Compared to the judicial districts the 99 counties that make-up the state are more dissimilar to one another as a group and reveal greater difference on a variety of characteristics. Moreover, and with respect to the judicial districts, a number of counties within certain judicial districts appear to have more in common with counties in other judicial districts than with counties in their own judicial district. For example, and as noted above, five of the 99 counties representing five of the eight judicial have populations that exceed 100,000 while 14 of the counties representing seven of the eight judicial districts contain populations numbering under 10,000 inhabitants. In addition to population data reflecting greater heterogeneity among counties, there exists other indicators including social, economic and cultural data indicating that counties are more heterogeneous units than judicial districts (Iowa Development Commission: 1977, pp. 7-8, 34-40, 60-64, 76-78, 85-90, 104, 106-107, 114-115).

Because of this heterogeneity among counties and because the counties were not included for study in the advisory commission analysis, it remains unknown if the sentencing decisions of the judiciary are in any way related to the counties in which the sentencing occurs. Therefore, the problem under investigation in this study is whether sentencing dispositions in the state of Iowa are associated with the

counties in which the sentencing occurs. That is, do counties with similar profiles also exhibit similar propensities in the judicial sentences imposed on criminal offenders who otherwise have similar characteristics.

A Typology of the 99 Counties

With respect to the 99 counties in the state, a number of typologies might conceivably be advanced to conceptualize the relative nature and extent of heterogeneity among the counties in order to test whether the counties exhibit similar propensities in the sentencing dispositions imposed on convicted offenders. Due to several considerations to be discussed below, the typology to be employed in this study for conceptualizing the nature and extent of heterogeneity among the 99 counties will be the rural-urban character of the counties.

The distinction between rural and urban is a familiar one and while it is readily recognized in everyday language the criteria employed in distinguishing between what is urban and what is rural are hardly exact and certainly not scientifically precise. Yet, this has not discouraged deployment of the rural-urban concept as both an organizational and analytical typology in the study of sociological phenomena. Because rural and urban locations differ in a number of ways, qualitatively as well as quantitatively, the use of the concept as an explanatory theme of social phenomena is quite common. Given that the 99 counties in the state of Iowa differ on a number of common characteristics consistent with those traditionally employed in distinguishing between rural and

urban areas, it would be logical to employ the rural-urban concept as an explanatory theme in determining whether criminal sentencing policy among the 99 Iowa counties is associated with rural-urban differences.

A second rationale for employing the rural-urban typology as a means of conceptualizing the heterogeneity among counties is based on knowledge that the rural-urban concept has and continues to be a standard explanatory theme in the criminological literature on the environmental causes of crime. A significant number of studies have consistently found, irrespective of time or place, that the nature and scope of criminal activity within rural and urban areas differs. Generally speaking, the accepted conclusion has been that this difference is in part "a function of the type of life and the various norms and values of the communities" (Clinard: 1968, p. 99). Yet, and strangely enough, little attention has been given to the influence of rural-urban differences in determining official modes of response to crime. In light of the well-established theme that the causes of crime can be partly accounted for by rural-urban differences, a natural consequence would be to assume that official modes of response to crime are in part also due to rural-urban differences since both phenomena are conceptually tied to the larger issue of crime in general. Whether the type of life and the various norms and values particular to rural-urban communities are in fact contributors to official modes of response to crime is uncertain at this time. Nonetheless, as a rationale for employing a rural-urban typology as a means of conceptualizing the nature and extent of heterogeneity among the counties, the linkage between causes of crime and official response to crime justify its use.

Defining the Rural-Urban Concept

Concomitant with selecting a rural-urban typology as a means of conceptualizing the nature and extent of heterogeneity among the counties, some criterion for determining what characteristics or variables should be included in establishing and defining a rural-urban typology needs to be considered also.

Traditionally, definitions of rural and urban have been molded around one of two constructs. One approach has employed as its locus a strictly physical definition. Rural and urban areas have been defined in terms of mathematical ratios of people to space. The spatial approach assumes that persons living in rural areas and those in urban areas have interests particular to themselves.

The second approach has rejected a strictly quantitative definition and instead has sought to identify a set of attitudinal constructs particular to rural and urban areas. One of the earliest, developed by Louis Wirth has come to be viewed as a relatively standardized typology. It includes over fifteen urban personality traits, and over twenty qualities of social organization. Yet, in identifying where these qualities are to be found Wirth refers to a number of quantitative variables. He contends that number, density of settlement, and diversity of the population serve as basis for determining where these qualities may be found (Wirth: 1938; pp. 18-19). More recently, Anderson and Ishwaran have enumerated fourteen characteristics common to 'urban man' in contrast to 'rural man'. For example, 'urban man' is "more favorable to new songs and dances and does not share the rural proclivity for repeating the

old familiar jokes" (Anderson and Ishwaran: 1965; pp. 6-7).

The evidence over the past years points to a preference for the quantitative or spatial approach. If one defines rural areas as sparsely populated and urban areas as densely settled, then the rural-urban concept thus defined yield social characteristics that result from the intensity of population. Stated otherwise, it is the intensity of the population that results in different social characteristics between rural and urban areas. It is unlikely that the relationship exists in reverse to any great extent. Secondly, the validity of any approach is in part measured by its appeal and use in the professional community. The dominant appearance of the spatial approach in the literature also attests to its preference.

A second problem which tends to compound the difficulty in establishing a definition of rural-urban is whether the distinction between the two is one of degree or one of kind. Again the choice has been for a quantitative approach. The preference has been to accept "that the difference between the two polar types of communities are gradual and continuous and not qualitative differences per se resulting in a simple dichotomy" (Schnore: 1966; p. 133). While this preference for a continuous model of rural-urban further clarifies those considerations which should be taken into account in establishing and defining a rural-urban typology, it leaves unanswered the question of whether the continuum should be derived from a unidimensional as contrasted to a multidimensional criterion. In the name of increased precision, the preference has been toward a multidimensionally-based criterion.

Duncan's caveat written some twenty years ago is still echoed today: "... it is highly doubtful that the unidimensional continuum in any rigorous mathematical sense, is a sufficiently realistic model for research on intercommunity variation. Realistic classifications will almost necessarily be multidimensional ones" (Duncan: 1957; p. 45).

In considering the preceding discussion as a guide in establishing and defining a rural-urban typology, one would be led to accept that it should be based on spatial rather than attitudinal criteria, be continuous rather than discrete, and multidimensional rather than unidimensional in character. Accordingly, the rural-urban typology in this study will be a multidimensional one based on spatial variables which are continuous in nature. The manner in which this is done will be discussed in the methodology portion of this study.

Purpose of the Study

The major purpose of this study will be the following:

(1) To test the general hypothesis that the criminal sentences imposed on convicted offenders are in part a function of the locality in which the sentence is imposed.

(2) To determine whether certain legal as well as social factors particular to the offender are of equal importance in rural and urban courts with respect to the criminal sentences imposed on such offenders.

Significance of the Study

It is anticipated that the findings from the study will provide both theoretical and practical information on several issues relevant to the areas of sociology, the criminal justice system in general, and the Iowa criminal justice system in particular.

First, the study should provide further information on the issue of local control and influence of local criminal justice policy. Initially, it should provide an answer to the question of whether local control is evident and operating at the county level of judicial decision-making. Assuming for now that this is in fact the situation, then a number of policy related issues arise as a result. First, if variations in sentencing outcomes are associated with local differences then the possibility exists that the sentencing process reflects, in part, local values and customs and not just the legal codes of the state. Thus, offenders sentenced in the state of Iowa are potentially being subjected to a dual standard of law depending on where the sentencing occurs, i.e., in rural or urban counties. Whether local variations are justifiable is, of course, beyond the scope of this study and in any event must be resolved by those charged with the responsibility of formulating criminal justice policy. What this study can do, however, is to determine whether sentencing disparities exist at the local level.

Second, and assuming a dual standard is evident, then it lends support to the viewpoint of those who are presently advocating the formulation and implementation of sentencing guidelines. The call for sentencing guidelines, however, is based on data from a variety of

studies none of which have examined sentencing outcomes on a totally statewide basis. This study should provide information which can be used to assist decision makers interested in implementing sentencing guidelines at the local level.

Third, the study should provide general information on the nature and extent of sentencing disparity in the state of Iowa. While previous studies have, on occasion, uncovered evidence which led to the conclusion that sentencing disparity was evident, such studies have often been criticized on a number of issues including the representativeness of their data base. Since this study is utilizing a statewide data base consisting of cases from all counties in the state, it should provide a more detailed base for assessing the nature and extent of sentencing disparity.

Fourth and last, the findings from the study should provide positional support for one of the two competing points of views regarding the merits of a rural-urban distinction as a useful concept in explaining social variations. And although tentative at best, it will, nonetheless, represent a contribution from an area which heretofore has not been recognized as a potential avenue capable of contributing towards resolution of the issue and continuing debate.

Overview of the Study

In this initial chapter a general orientation and background to the study has been provided. Discussed were topics such as the problem under investigation, the purpose of the study and the rationale for

assuming that sentencing policy might be affected by the composition of the local population base.

The chapters which follow examine in greater detail the general topics introduced in this chapter. In Chapter II a rationale for assuming rural-urban differences in sentencing policy is discussed. Chapter III examines the research literature in the area of sentencing and draws several conclusions regarding the impact these findings have for this present study. Chapter IV presents the design and methodology for the study. The results of the study are presented and discussed in Chapter V. The concluding chapter, Chapter VI, examines the implications of the findings from this study as well as a number of conclusions which can be drawn from it.

CHAPTER II

RATIONALE UNDERLYING RURAL-URBAN SENTENCING DISPARITY

Towards the conclusion of the previous chapter it was established that rural and urban areas differ and that this difference was taken primarily as the result of physical or spatial characteristics. In this chapter I wish to examine in somewhat greater detail the ramifications of these differences and the consequences they potentially have for the sentencing dispositions imposed on convicted offenders.

The chapter begins with a discussion of the relationship between the cultural and social environment and its potential impact on the attitudes and values of persons in rural and urban areas. This is followed by a discussion of whether values and attitudes might influence public policy in general and whether judicial sentencing can be viewed as an expression of public policy. The chapter concludes with a presentation of the hypotheses to be examined and tested in this study.

Rural-Urban Attitudes and Values

While spatial differences constitute the major criterion for identifying and distinguishing between rural and urban areas, they provide only limited insight and knowledge about the people who live there.

Concomitant with spatial differences such as size and density and probably emanating from them are differences in the social-cultural backgrounds and ways of life of rural and urban people as well. It is from these differences that the potential for differences in criminal sentences imposed on convicted offenders are rooted.

It has often been asserted that rural people possess attitudes and values that differ, if not in kind then in degree from those possessed by people living in urban areas. Place of residence is taken as an indicator of differences in social and cultural values which in turn are associated with differences in attitudes. This distinction has led to much stereotyping and characterization of rural people as conservative, intolerant and tradition-bound. Urban people, on the other hand, are viewed as tolerant, outgoing, and receptive to change. The popular belief underlying this stereotype is that 'where' a person lives molds and shapes to some degree 'how' he lives.

Sociologists too, albeit, in somewhat more sophisticated terms, also make this same type of connection between where a person lives and his attitudes and values. That a person's place of residence might contribute to a different orientation in attitudes and values has recently been suggested by Schnore.

> Not only is place of residence--rural versus urban--a crucial current characteristic, it is also a vital variable when regarded from the standpoint of one's place of origin. A wide range of individual behavior can be predicted with reference to either (a) the type of community in which the person now resides, or (b) the type of community in which he was born and reared (Schnore: 1966; p. 136).

The reasons as well as belief among sociologists, such as Schnore, that place of residence is associated with differences in attitudes and values has been succinctly summarized by Willits and Bealer. These writers express the belief that

> ... rural people can generally be characterized as 'conservative'--that they tend to accept the culture as it came to them and to preserve its traditional values. They point to the fact that the nature of agriculture is such that it demands a high land-to-man ratio which has historically hindered the concentration of farmers into large communities and brought about a low density of population. This, in turn, limits the number of potential interacting partners and thus fewer social contacts per person are probable. Limited association with other groups lead to a strengthening of previously held values and is thus conducive to great fixity of habits and opinions--in a word to greater conservatism (Willits and Bealer: 1963; p. 71).

Urban people, on the other hand, because they live in a highly populated, dense environment are subject to a potentially larger number of social contacts due to the potentially greater number of interacting partners. Increased association with other groups it is believed leads to a depreciation of previously held values and is thus conducive to greater flexibility in habits and opinions, of a greater degree of liberalism.

Not all sociologists, however, agree with the above scenario. While physical isolation may have, in the past, led to differences in attitudes and values between rural and urban people, it no longer characterizes the situation today. Mass communication, improved transportation, and technology, they argue, has resulted in increased contact between rural and urban areas, thereby, leading to a reduction in the cultural and social distance between the two (Van E's and Brown: 1974; p. 386). In turn, this has led to a decrease in the importance of place of residence as a mechanism for discussing differences in attitudes and values.

The response to this line of reasoning is that while rural-urban cultural and social differences are waning, rural areas still represent pockets of relative conservatism.

> Traditional attitudes and values, deeply rooted in the local cultural base may be sticky and slow to change. At the same time, urban areas (already presumed to be less conservative) would not be expected to decelerate their rate of change. Thus, particularly in regard to their attitudes and values, rural persons may be expected to present 'relatively' conservative positions even though their values are ever changing (Willits and Bealer: 1963, p. 72).

As the authors note, conservatism used in this sense does not imply a perpetual refusal to change ones way of thinking but "Rather in a society such as ours, where change is more or less endemic, it may be thought of as a relative delay in the acceptance of the new" (Ibid.: p. 72).

If it is in fact the case that while in the process of changing, the hinterland still represents an area of relative conservatism, then it could be anticipated that differences in the attitudes and values of rural as compared to urban people still exist. In order to determine the validity of this assumption, an analysis and assessment of the empirical literature will be undertaken. The analysis is divided in two parts and focuses on two somewhat interrelated issues. The first part focuses on studies that have investigated the attitudes and values of rural and urban people in general, with specific emphasis being given to studies dealing with crime and criminal justice related issues. The second part focuses specifically on literature and those few studies that have examined the attitudes and values of rural and urban people in Iowa. The purpose here is to determine whether the attitudes and

values of rural as compared to urban people are in general more conservative. In doing so a potential foundation will be established which can later serve as the bases for relating how these differences, if any, might influence sentencing dispositions in rural and urban Iowa counties.

The empirical literature focusing on attitudes and values of rural and urban people is based on either one of two sources: (1) on data drawn from particular geographic regions or social categories, or (2) from studies using national probability sample data. Both approaches moreover employ cross-sectional types of research designs and as a result the data bases and inferences that can be drawn from them are limited to a specific population at one point in time. While normally a handicap when making absolute comparisons over time--either within or between categories, e.g., rural vs. rural or rural vs. urban--this limitation is not as acute here since the purpose at this point is to establish relative differences over time between categories, i.e., rural vs. urban, especially for the most recent time period, i.e., since 1960. The issue is whether differences in attitudes and values still exist between rural and urban areas and not on the comparative increase or decrease over some previous point in time.

Three studies (Glenn and Alston, 1967; Lowe and Peek, 1974; and Hindelang, 1975) utilized existing national probability sample data to examine the attitudes and values of rural and urban people. In two of the investigations rural-urban differences were of primary interest, in the other (Hindelang) it represented a secondary focus.

Glenn and Alston (1967) undertook a study to determine in part how closely popular stereotypes and the impressions of sociologists corresponded with the reality of rural and urban attitudes and values. Utilizing 92 items from 20 national opinion polls conducted by the Gallup Organization and the National Opinion Research Center from 1953 to 1965, the authors concluded that rural workers were "more traditional in religious beliefs, ascetic, work-oriented, puritanical, prejudiced, ethnocentric, isolationist, uninformed, unlikely to read books or newspapers, distrustful of people, intolerant of deviance, opposed to civil liberties, opposed to birth control, and favorable to early marriage and high fertility than all [four] or most classes of urban workers" (Glenn and Alston: 1967; p. 400). Rural workers included farm owners, tenants and managers as defined by the 1960 census, while the four categories of urban workers included professional and semi-professional workers, businessmen and executives; clerical and sales workers, craftsmen and foremen; and operatives, service workers and non-farm laborers. When control variables, such as, age, region, earnings, education and religious preference were introduced into the analysis the initial relationships remained unaffected.

Two of the items analyzed in the study could be considered as dealing specifically with issues in the area of criminal justice. Rural as compared to urban workers were more likely to approve of corporal punishment for juvenile offenders in the place of incarceration and to agree with the statement that prison is too good for sex criminals, favoring instead public whipping or worse. However, the difference for the later

item--35.9% for rural workers vs. 31.9% for urban workers--is only slightly better than chance expectation (Ibid.: p. 390).

Although a large number of the popular stereotypes and impressions of social scientists regarding rural-urban differences in attitudes and values are supported by the opinion data, a number (conservatism, authoritarianism, happiness) were not, or at best appear ambiguous. The authors attribute this lack of confirmation to a number of sources including sampling error, the unwillingness of rural workers to submit to authority thereby making them less likely to agree with an item that deals specifically with authority and power relations and low average earnings. Another possible source of contamination is the unidimensional nature of the items. Perhaps the items are tapping issues and other dimensions unknown to the authors. This issue of item validity, however, is not directly addressed.

Lowe and Peek (1974) also investigated attitudes and values in rural and urban areas. While the major thrust of their study dealt with the predictive ability of other indicators of rural and urban areas and their efficacy in predicting differences in attitudes and behavior as compared to the more traditional spatial ones, their findings are nonetheless applicable.

Data for the study was based on three probability samples of United States adults taken by the Gallup Organization in 1966 and twice in 1968. Although the 66 attitude and opinion items were analyzed twice--first by place of residence, then by a composite index composed of place of residence and lifestyle--the findings irrespective of method

used to define rural and urban were, overall, quite similar. Rural areas included all places under 2500 population while urban areas included places with populations of over 50,000. Excluded were persons living in areas in between the two. On the average this resulted in 17% fewer respondents being included in the analysis.

A number of the findings parallel those found earlier by Glenn and Alston. Persons living in urban areas were more in favor of lenient divorce laws and were more likely than rural persons to accept particular reasons such as mental cruelty and mutually agreed upon separation as grounds for divorce. Urban people also approved of changes in the terms of United States Senators and Congressmen; were more in favor of changing current political institutions and arrangements; were more favorable towards requiring young men and women to give a year of service to the nation in either a military or non-military role; and were more negative toward financing the Vietnam War than rural residents (Lowe and Peek: 1974, p. 404). On the other hand, rural people were less opposed to larger families; to population growth in their own area; and with respect to crime and criminal justice were more likely than urban people to approve lenient treatment for criminals in general, in connection with the circumstances under which the crime was committed and in relation to a particular crime, namely, arson (Ibid.; p. 404).

While the majority of items are, in general, consistent with popular stereotypes, and the impression of social scientists those items focusing on crime and criminal justice related issues are not. The authors did not address this seeming inconsistency, since the purpose

of their study dealt with comparing different predictive model of attitudes and values in rural and urban areas and not the substantive issues underlying the items per se. However, given the purpose of their research and their methodological design--only those variables which ranked highest according to seven independent predictors including age, place of residence, race, education, sex, region and income were retained for inclusion in the multiple regression analysis--it remains unknown what effect, if any, place of residence has on those variable not included in the analysis. For example, of the nine separate items dealing with treatment of criminals only three were included in the analysis because of the ranking criterion employed. Thus, six items were excluded. Moreover, the three items included in the analysis were selected, not only because of their relationship to place of residence, but also because of their relationship with the remaining six independent predictors as well. As a result, there exists a degree of uncertainty regarding whether or not the 'expected' relationship between place of residence and attitudes toward crime and criminal represents a diametric shift in rural-urban criminal attitudes or whether the shift is merely reflective of, and an artifact of, the methodology employed by the authors. Given the relatively enduring nature of attitudes and values coupled with the findings of Glenn and Alston seven years earlier, the latter seems to be the more probable. Further, the findings from Hindelang's analysis, discussed below, which employed comparable data from a relatively similar time period, adds some support to the above contention.

For the past decade or so an increasing number of nationwide public opinion polls regarding crime, criminal justice, and related topics, have been undertaken. The results from these different polls--primarily Gallup--were recently incorporated into a monograph by Hindelang. Spanning the years 1965 through 1972, the data presented provides support for the belief that the attitudes and values of rural and urban people differ.

One topic which has received considerable attention from pollsters lately, is fear of crime. Regarding fear of walking alone at night, respondents 21 years of age and older were asked on two separate occasions the question "Is there any area right around here--that is, within a mile--where you would be afraid to walk alone at night?"; for those living in urban areas as contrasted to those in rural areas the percents answering affirmatively were 48 percent and 21 percent in 1965, and 48 percent and 24 percent in 1972 (Hindelang: 1975; p. 8).

In response to another question designed to tap respondents perceptions on the issue that police should be tougher in dealing with crime and lawlessness, no large differences were observed between rural and urban residents. Both groups were overwhelmingly in support of a tougher stance by law enforcement officials, 80 percent or greater. However, farmers as contrasted to the three other occupational categories--manual workers, white collar workers and professionals and businessmen--were significantly more in favor of a tougher stance; 93 percent of the farmers support the statement, whereas, the percent for the other three categories of workers were 80, 81 and 84 percent,

respectively (Ibid.; p. 11). A similar trend prevailed when respondents were asked if they would support a political candidate who advocated tougher sentences for lawbreakers. Eighty-six percent of the farmers answered affirmatively, while the combined percentage for the other three categories averaged 76 percent. In none of the occupational categories was the percentage greater than that of farmers (Ibid.; p. 13).

In a series of related questions, focusing on the legal, social and personal aspects of drugs and their use, rural respondents consistently took a more conservative position than urban respondents. When asked, "Do you think the penalties for the use or possession of marijuana should be less strict than they currently are or not?" a strong positive relationship between community size and approval occurred; in communities of 500,000 or greater, 43 percent favored less strict penalties; in communities of 50,000 to 499,999, 29 percent; in communities of 2,500 to 49,999, 20 percent; and for areas under 2,500, 23 percent (Ibid.; p. 15). When asked "Do you think the use of marijuana should be made legal or not?" a similar pattern emerged. Moreover, the relationship exhibited strong monotonic qualities. Employing the same categories of community size as above the respective percentages approving were 24 percent, 19 percent, 9 percent and 7 percent (Ibid.; p. 15). When type of occupation was introduced, a similar, albeit somewhat stronger, relationship emerged. Farmers more than any of the other three categories of workers were less likely to favor decreasing marijuana penalties or legalizing its use.

Two remaining topics reported on by Hindelang involved medical and personal aspects of drug use. On both items a strong monotonic

relationship emerged. In response to the question "For most people marijuana is physically addictive," 51 percent of the respondents in communities of 500,000 or more agreed; 58 percent in communities of 50,000 to 499,999; 67 percent in communities of 2,500 to 49,999; and 70 percent in areas of 2,500 or less (Ibid.; p. 17). When asked, "Have you yourself, ever happened to try marijuana?" the respective percentages for the four community categories was 18 percent, 13 percent, 10 percent, and 3 percent. Consistent with previous results, farmers more then professionals and businessmen, white collar workers and manual workers, agreed with the statement that marijuana is physically addictive and as to personally ever having tried marijuana only 1 percent of the farmers stated that they had (Ibid.; pp. 17-19).

Based on national opinion data there is seemingly good reason for believing that the attitudes and values of rural and urban people are not identical. The findings of Glenn and Alston, as well as those of Hindelang, indicate that people in rural areas are more traditional, somewhat more intolerant, less accepting of change, and in general, more conservative than people in urban areas. A number of empirical studies based on data drawn from particular geographic regions and social categories, also indicate that the values and attitudes of rural and urban people differ.

Willits and Bealer (1963) compared the attitudes of Pennsylvania high school sophomores to those of their areal counterparts published thirteen years earlier. Place of residence for both samples was identical and included the three categories of farm, open country, nonfarm and

town. Twelve items dealing with such traditional topics as alcohol use, church attendance, divorce, card playing, Sunday movies, work on the Sabbath, "loafing uptown", staying out late, control of spending money, the use of make-up by girls, use of tobacco and failure in school were investigated. Compared to their earlier counterparts, the more recent group showed greater overall differentiation on the twelve items with farm residence in both samples exhibiting the greatest penchant towards traditionalism, while town residents showed the least (Willits and Bealer; 1963; pp. 75-78). More recently, Willits and associates (1973), in a follow-up of the 1963 study found somewhat similar results and on one of the twelve items, alcohol use, found that while there was some decrease in negative attitudes toward its use from the earliest to the most recent sample of youths these attitudes decreased most among youths living in towns and least among those living on farms; that is, differences in attitudes towards alcohol use widened from the earliest to the most recent period between farm and town youths (Willits, Bealer and Crider: 1973; pp. 42-44).

Nelsen and Yokley (1970), in a study of the relationship between conservatism, tolerance, and place of residence, concluded that "rural residents are most conservative and that liberal attitudes are increasingly evident among the residents of town, small city, suburb, and large city, in the order given" (Nelsen and Yokley: 1970; p. 170). Respondents included roughly 4,000 United Presbyterian Ministers and approximately 3,000 elders belonging to the United Presbyterian Church. In a somewhat similar study of the inclusive practices of the Methodist

Church. Brewer (1965) found that respondents residing in urban areas--classified as places with population of 10,000 or more--were more likely to believe that the local church should receive into membership all persons of faith regardless of race or ethnicity than were respondents who lived in rural areas (Brewer: 1965; p. 87).

Few studies, other than those using national opinion data, have dealt specifically with the attitudes and values of rural and urban people on issues related to crime and criminal justice. Fisher (1972), for example, in an exhaustive evaluation of results from over 200 studies focusing on rural-urban differences and their implications; for Wirth's (1938) seminal article on "Urbanism As A Way of Life", concluded that, "In terms of attitudes on moral issues [legal and social deviance] city people are more deviant or nontraditional [than rural people] regarding a whole gamit of topics" (Fisher, 1972, p. 212). The conclusion, however, is based on findings of national opinion polls.

One study (Nelsen and associates: 1971) did specifically investigate the attitudes of rural and urban people on issues related to crime and criminal justice. Employing a sample of convicted Kentucky property offenders to test the hypothesis that place of residence would be associated with antilaw attitudes, they found that rural offenders who had not previously served a sentence had lower scores on a 5 item antilaw index and concluded that rural respondents view the law in a more favorable light than their urban counterparts (Nelsen, Reed, and Tish: 1971; pp. 200-201). Earlier research by Clinard (1944) also found similar results between rural and urban offenders. Whether these

findings can be generalized to rural and urban populations, without qualification, is doubtful. However, the results are consistent with previous findings derived from more 'normal' populations and thus lend a degree of credence to the assumption that the attitudes and values of rural and urban people can generally be regarded as dissimilar.

Turning away from the attitudes and values of rural and urban people in general, to those of people in the state of Iowa, there exists evidence, albeit indirect, that their attitudes and values are reflective of rural-urban divisions as well. The major source of support for this contention is drawn from Hahn (1971) and his publication Urban-Rural Conflict, in which he develops the thesis that political conflict in Iowa is representative of rural-urban divisions within the state. The assumption here is that underlying this division are differences in the attitude and values of the people as well.

Hahn's definition of rural-urban is a broad and dichotomous one and is based on occupational and social indices which established a population of 10,000 "as a general dividing line between urban and rural areas" (Hahn: 1971; p. 24). In general, he found that political support for the Republican party and issues which could be categorized as conservative in nature, found their strongest support in small rural towns and outlying areas and that this support decreased in urban and metropolitan areas; conversely, the Democratic party and the issues which it promulgated normally found their greatest support among urban areas and the least support in rural areas (Hahn: 1971; p. 97). In assessing these differences in political support among rural and urban

areas, Hahn notes that small towns have been favorable to the maintenance of traditional values. Drawing from other research he posits that:

> The social structure of rural towns in Iowa probably has been more stable than any other similar group in American society. 'The village serves as a place of residence for disproportionately large numbers of some of the most dependent groups in American society and particularly for aged persons of both sexes and for widowed and divorced females' (Smith: 1942; p. 21). Such communities 'seldom have the economic advantages to attract residents representing new and different socio-political attitudes' (Epstein: 1958; p. 70). (Hahn: 1971; p. 96).

Other research cited by Hahn also points to differences in rural-urban attitudes and values among Iowa residents. In a study reported by Price (1959), and alluded to by Hahn, urban legislators were more supportive--from 20 to 25 percent higher--than their rural counterparts for increased social welfare and appropriations; more liberal labor and liquor laws; more money for education, and a greater degree of local autonomy for cities (Hahn: 1971; p. 141). Similar differences were found on a wide variety of other issues involving legislative voting patterns (Ibid.; p. 143).

Occupational differences between rural and urban legislators also tend to underscore possible differences in rural-urban attitudes and values.

> ... farmers generally have been associated with the representation of rural voters, while lawyers usually have been viewed as the spokesmen for urban or small town residents. An empirical investigation of legislators from urban and rural areas has tended to confirm this observation. From 1909 to 1963, for example, 71.4 percent of all senators and representatives from Polk county, the most populous county in the state, were lawyers. Some farmers have represented predominately urban counties in the legislature, but generally the election of lawyers and farmers has implied the representation of urban and rural areas respectively (Hahn: 1971; pp. 135-136).

On another and more direct measure of individual difference at the rural-urban level, rural voters in the 1960 constitutional reapportionment referendum overwhelmingly voted against the issue while urban voters supported the measure. That the vote was highly related with rural-urban differences is confirmed by two studies cited by Hahn. "One researcher (Mather, 1960) found a correlation coefficient of +.89 between the two variables, and another (Wiggins, 1963) discovered a correlation of +.62" (Hahn: 1971; p. 202). Variation between the two coefficients was due to different definitions of urbanism. The vote, moreover, tended to overshadow partisan differences.

> Although the Democrats constituted the only party that explicitly endorsed the convention to secure reapportionment, urban Republicans were nearly as favorable to the issue as Democrats in the cities. In general, 'the top Republican precincts in cities with a population of 80,000 or above were heavily for the constitutional convention, although generally not quite as strongly as the top Democratic city precincts' (Schmidhauser: 1963; p. 30). Support for the issue in urban areas was not differentiated by socioeconomic levels or by partisanship. Another study in Des Moines (Salisbury and Black: 1963; p. 591), for example, found no statistically significant relationship between the vote on the 1960 convention question and social class or party preference (Hahn: 1971; pp. 202-203).

While numerous other instances of conflict between rural and urban areas are examined and discussed by Hahn, they only provide additional support for his thesis that rural-urban conflict represents an integral part of the political process, and that such conflict helps to explain the underlying nature and dynamics of state party politics, at least in Iowa. In doing so, however, he also establishes that rural-urban political conflicts emanate from ideological differences particular to the two areas. Thus, cultural and social differences between rural and

urban areas emerge from his analysis and provide indirect evidence although at times direct as well, that the attitudes and values of rural and urban Iowa residents tend to lie on opposite sides of the liberalism-conservatism continuum. Rural areas are seemingly more traditional in orientation, reflect greater affinity for the status quo and, in general, can be characterized as more conservative than urban areas.

In summary, these findings, along with those presented earlier on rural-urban differences, establish a basis for claiming that the attitudes and values of rural and urban Iowa residents differ. In the section to follow, the implications of these differences will be examined relative to a number of other factors. Of specific interest is the degree to which a relationship, if any, exists between 1) attitudes, values, and 2) public policy. Further, given the existence of a relationship, what are the consequences, if any, for public policy in rural and urban areas? A partial answer to these questions has already been touched on in the discussion of Hahn's work just presented.

Attitudes, Values, and Public Policy

Having established that the attitudes and values of rural inhabitants can generally be characterized as more conservative, traditional, and status quo oriented than those of their urban counterparts, it would be appropriate, at this point, to examine what implications, if any, these differences have for the execution of public policy. Prior to doing so, however, it is both necessary and beneficial to examine whether attitudes and values do, in fact, influence policy; especially,

policy at the local level of administration, keeping in mind that the ultimate purpose in doing so is to establish a foundation so as to account for potential differences in the criminal sentences imposed on convicted offenders in rural and urban Iowa counties.

The assumption that the attitudes and values of the population at large are reflected and in some measure taken into account by public officials in formulating and shaping public policy, is one of long standing. At the same time, however, both the internal and external nature and dynamics defining the process and the interrelationship between the two remain somewhat clouded, especially at the empirical level. In summarizing the uncertainty and ambiguity of this issue, Alford (1969) states:

> ... such studies [those investigating the relationship between the attitudes and values of public officials and their constituents and their impact on public policy] are based on the assumption that a correspondence exists, that attitudes shape and influence norms, that norms constrain and influence attitudes. Seldom have these aspects of culture been distinguished separately in empirical work, although at least implicit recognition of these distinctions is contained in the theoretical categories of analysis (Alford: 1969; p. 5).

In reaching this conclusion, Alford, however, is not denying that the attitudes and values of constituents affect and in some measure influence the policy decisions arrived at by public officials. Rather, he is asserting that there exists a paucity of empirically based knowledge surrounding specific aspects of the issue and as a result statements characterizing the underlying nature and dynamics of the relationship are at best tenuous.

At a more general level there exists a wide variety of studies which provide a basis for making connections between the attitudes and

values of constituents and the public policy directives of their representatives. These studies can, for sake of convenience, be categorized into research concerning elected public officials vis-a-vis the public and research concerning leaders in general versus the public. Each will be discussed in turn.

Research of the first type can be broken down into two topical areas and include comparisons regarding the opinions and sociopolitical attitudes of constituents and their elected officials on various issues and comparisons regarding various socioeconomic characteristics of constituents and their elected officials.

Miller and Stokes (1966) compared the policy preferences of constituents to the roll-call behavior of their congressmen, and the congressmen's perceptions of those preferences. Although roll-call behavior was found to be partially influenced by the congressmens' perceptions of their constituents preferences in the three areas investigated, in the main congressmen tended to be largely unrepresentative of their constituents (Miller and Stokes: 1966; pp. 351-372).

Research undertaken at the local level of government by Williams and associates (1965), compared the opinions of a random sample of constituents on relevant community goals to those of their elected representatives in sixteen Philadelphia suburban areas. Included as a secondary component in the overall purpose of the study, analysis of the opinion data revealed that in suburbs classified as middle in socioeconomic rank, the opinions of elected officials and constituents were, in general, similar while in lower and higher ranked suburbs the

opinions of the two groups tended to be more divergent (Williams, Herman, Liebman and Dye: 1965; pp. 213-219). However, these findings were based on a visual comparison of the percentage responses of the two groups on issues considered "very important" in their communities. In a re-analysis of the data, Kirk (1974), found that

> When these issues [those considered very important] were ranked according to percentage, only in the suburbs of high socio-economic status did the opinion-ranking of elected officials differ markedly from residents; in both the middle and lower class suburbs the ranking of issues for officials versus residents was significantly correlated ($p \leq .05$). [Spearman's Rank Correlation] Furthermore, when the percentages for the three types of suburbs were averaged together for each issue, the ranking of the issues for elected officials was found to be correlated with that of residents (Kirk: 1974; p. 21).

In a study similar to that of Miller and Stokes, Hawley and Zimmer (1970) found inconclusive results between the opinions of constituents and those of their elected officials. Irrespective of size of the metropolitan area, the opinions of constituents and elected officials showed no clear-cut relationship on a variety of issue common to both central city and suburban officials and constituents (Hawley and Zimmer: 1970; pp. 93-134).

In their study of 16 Philadelphia suburbs, Williams and associates examined a number of topics and issues reflecting sociopolitical attitudes and values. Compared with their constituents, elected officials were found to be more parochial but less alienated from state and national political institutions and less partisan (Williams, Herman, Liebman and Dye: 1965; p. 215). When broken down by suburban type, i.e., socioeconomic rank, elected officials in suburbs of high social rank tended to have higher levels of political conservatism than their

constituents, but this relationship was reversed in suburbs of middle and lower social rank (Ibid.; p. 215). However, elected officials in suburbs of low social rank were more ethnocentric than their constituents but in middle and upper ranked suburbs the reverse was true (Ibid.; p. 215).

The majority of information on constituents and elected officials is found in the area of socioeconomic characteristics. And while constituents have been found to have lower levels on such criteria as income, education, social and political participation, formal group membership and a host of other like indicators than their elected officials the general conclusion has been that the socioeconomic status of elected officials has varied positively with the relative socioeconomic status of the community to which they belong (Downes: 1968; pp. 514-537).

Turning to the second group of studies; that is, those concerned with leaders in general versus the public, their findings, while providing support for maintaining that the attitudes and values of constituents influence the decisions of community leaders are, nonetheless, inconsistent. Regarding socioeconomic characteristics of the public and its leader, a number of studies have reached conclusions similar to those found between constituents and their elected officials. Leaders have been consistently found to have higher levels of education, higher incomes, belong to more formal organizations, to more often be male and white, and to be more socially and politically active (Dahl: 1961; pp. 170, 172, 230; Wildavsky: 1964; pp. 282-288, 291-293, 298-300; Presthus: 1964; pp. 286-288).

With respect to attitudes and opinions, research shows that leaders generally exhibit a greater sense of "political efficacy" and, as could be expected from their higher levels of formal group membership and sociopolitical activity, they also express higher levels of interest in public affairs, especially at the local level than do followers (Dahl: 1961; pp. 173, 288-289; Wildavsky: 1964; pp. 287-288, 294; Presthus: 1964; pp. 334-335). Again, and at a general level, these findings are consistent with those found previously on constituents and their elected officials.

At the local community level several studies have compared the opinions of leaders with those of non-leaders or residents in general. One study, by Nix and associates (1974), found that the views of a sample of leaders--identified by position and reputation--in a rural Georgia county, were not associated with those of a random sample of residents on thirty specific county-wide needs; however, when the thirty separate items were grouped together to form ten general areas of county needs the rank ordering of needs as expressed by residents was significantly correlated with that of leaders (Nix, Singh, Cheatham: 1974; p. 86).

In an earlier study, Luttbeg (1965) in comparing the opinions of community leader and non-leaders on nine issues of local concern in two Oregon cities concluded that leaders were not representative of the community in their opinions (Luttbeg: 1965, p. 108). However, the conclusion seems unwarranted since it appears to be based on only a visual comparison of the nine pairs of numerical scores of leaders and residents. In noting this limitation, Kirk (1974) details the problem:

> These scores were derived from a five-point scale, corresponding to the following response categories: 'Strongly Approve, Approve, Uncertain, Disapprove, Strongly Disapprove.' When the differing mean scores of leaders and non-leaders were translated by the author into their corresponding response categories in no issue did their result a mean 'approval' for one group versus a mean 'disapproval' for the other group. In fact, the greatest difference between leaders and non-leaders turned out to be a situation in which the leader sample 'approved' of the issue while the sample of non-leaders remained 'uncertain'. This situation occurred on two issues. In all other issues [7] both leaders and non-leaders were on the same side of the five-point continuum (Kirk: 1974; pp. 36-37).

Based on his re-examination of Luttbeg's data, Kirk is thus led to conclude that "... a closer examination of the findings suggested that leaders did not substantially differ from non-leaders in their opinions on local issues (Ibid.; p. 37).

The results of research findings on leader versus the public suggest that leaders are relatively congruent with elected officials with respect to opinions, attitudes, and socioeconomic characteristics. Moreover, in both groups; that is, leaders and elected officials alike, there exists a reasonably high degree of correspondence between these measures, especially attitudes and opinions and the attitudes and opinions of non-leaders and constituents. However, the incidence of similarities appears to have been greater than the incidence of differences in research conducted at the local level and where the issues under consideration were more of a general nature than of a specific one.

In summary, while the findings between constituents and their leaders and/or elected officials have not been entirely consistent, they do nevertheless provide some support for claiming that the attitudes and values of constituents in some measure influence or, at a

minimum, reflect those of their leaders and elected officials. In the following section, the attitudes and values of rural and urban residents, and their potential impact for one aspect of public policy; namely, judicial sentencing, will be examined.

Judicial Sentencing As Public Policy

Prior to examining the relationship between the attitudes and values of rural and urban residents and the implication this has for one aspect of public policy, namely, judicial sentencing, it is worthwhile to recapitulate what has been established thus far. In doing so, the material presented to this point can be synthesized somewhat, thereby, facilitating discussion of the topic at hand.

Examination of previous research findings led to the conclusion that the attitudes and values of residents in rural and urban areas differed. Specifically, it was concluded that residents of rural areas could, in general, be characterized as being more traditional and conservative in their attitudes and values than residents of urban areas.

Subsequently, it was also concluded, based on a review of pertinent findings, that the attitudes and values of constituents influence or at least mirror in many respects those of their leaders and elected officials. Moreover, it was found that this influencing or mirroring of attitudes and values was relatively more pronounced and consistent when the issues under consideration were of a general as contrasted to a specific nature, and when the issues were investigated at the local as opposed to the national level. Accordingly, it was surmised that in

reaching public policy decisions both local leaders and elected officials would be influenced by the attitudes and values of their constituents and that their decisions would, in fact in some measure, reflect the attitudes and values of their constituents.

Based on the preceding set of statements the following generalization can be made: If the attitudes and values of rural residents on an issue of public policy are more conservative than the attitudes and values of urban residents towards that issue, then it could be anticipated that the public policy decisions of local leaders and elected officials in rural areas would exhibit a greater degree of conservatism than those of their urban counterparts since the attitudes and values of rural and urban residents alike influence or at least mirror those of their leaders and elected officials.

Prior to turning to the topic of judicial sentencing in rural and urban areas and specifically in rural and urban Iowa counties, the issue of judicial sentencing from the perspective of public policy needs to be briefly addressed. At issue is whether judicial sentencing can be viewed as falling under the rubric of public policy.

While an original intent of the separation of powers doctrine may have, at the theoretical level, been one of circumscribing the role and function of the judiciary to that of interpretation of legislative enactments, the reality of the doctrine at the applied level is less clear.

Distinguishing between interpretation of public policy and formulation of such policy is difficult to discern with respect to the judicial branch. As a consequence of being unable to cognitively distinguish between the two, current theorists as well as observers of the

judiciary maintain that judicial decision making, including judicial sentencing, must from a logical perspective be regarded as simultaneous including both interpretation and formulation of public policy. For a brief but persuasive discussion of this viewpoint see, Victor G. Rosenblum, Law As A Political Instrument. New York: Random House, 1955, especially Chapter 1. Also, Jack W. Peltason, Federal Courts In The Political Process. New York: Random House, 1955, pp. 1-5. For a more recent discussion of the issue see, John R. Klonoski and Robert J. Mendelsohn, The Politics of Local Justice. Boston: Little, Brown and Company, 1970; and Jacob Eisenstein, Politics and the Legal Process. New York: Harper and Row, 1973.

In Chapter III several empirical studies that have examined the relationship between judicial sentencing and court setting will be discussed. Also to be discussed is the topic of what other independent factors in addition to court setting should be considered relevant with respect to the type and length of criminal sentences imposed on convicted offenders.

CHAPTER III

REVIEW OF RELATED STUDIES IN CRIMINAL SENTENCING

In the previous chapter it was established that the attitudes and values of residents in a locality can influence and reflect the public policy decisions of their leaders and elected officials. This finding plus the contention that judicial sentencing is representative of public policy, provides a framework for viewing sentencing of convicted offenders in rural and urban Iowa counties.

This chapter begins with a review of several empirical studies which have, either directly or tangentially, examined the relationship between judicial sentencing in rural and urban areas and their outcome as measured by a number of criteria. I then examine other studies that have focused on the topic of sentencing disparity and from them draw an additional number of independent variables that have, in one manner or another, been demonstrated to be empirically relevant to the issue of criminal sentencing.

The Rural-Urban Factor and Criminal Sentencing

Although the rural-urban dichotomy has been regularly employed as a standard explanatory theme in the environmental causes of crime, attention has rarely been given to what influence, if any, it has for

determining official modes of response to crime. In reviewing the literature from the field of rural-urban sociology, no empirically based studies were located that dealt specifically with the latter theme. In the criminological literature only four such studies were located and of these three were published since 1975, thus confirming the initial observation that scant attention has been given to the influence of the rural-urban variable in determining official modes of response to crime. Moreover, only the two most recent of the four studies are concerned primarily with the rural-urban theme. In the two earlier studies this theme appears to be of secondary importance.

Bullock (1961) conducted a study designed in part to determine the significance of the racial factor in the length of prison sentences imposed on convicted criminal offenders. Data for the study was collected in 1958 through a survey of 3,644 prisoners in the Texas State Prison located at Huntsville. The dependent variable of interest, length of sentence, was dichotomized with sentences representing less than ten years being defined as 'short' while those ten years and over were defined as 'long'. The independent variables which also on several occasions served as control variables included race, type of offense, nature of present plea, and the region and county in which the conviction occurred. Of interest here are the latter two factors.

Both type of region defined as either East or West Texas, and type of county defined as either a 'large city county' if it contained one or more cities 50,000 or over in population, or a 'small city county' if it did not contain a city of this size were statistically associated

with length of sentence. Prisoners convicted in East Texas, where the mainstay of the economy rests in lumbering, small farms, and the oil industry, were more likely to receive "long sentences in greater proportion to their representation in the total group while those from West Texas [the region of large ranches] tended to get short sentences (Bullock: 1961; p. 414). Similarly, prisoners committed from counties with one or more large cities tended to receive long sentences in greater proportion than did prisoners from counties with small cities.

In looking at the relationship between race and the two areal factors similar results to those obtained above were found. Black prisoners were committed from East Texas in greater proportion than were whites, and a greater proportion of them were committed from counties having large cities. Conversely, in West Texas and in small city counties whites were represented in greater proportion than blacks (Ibid.; p. 415).

At this point Bulloch shifts the focus of analysis to his major variable of interest--race and its relationship to length of sentence. He found that the relationship remained strong regardless of any of the other variables studied even though these other variables including type of offense, type of plea, and place of residence, also had a significant effect on length of sentence. He concludes that: "Those who enforce the law conform to the norms of their local society concerning racial prejudice, thus denying equality before the law" (Ibid.; p. 417).

Although Bullock's conclusion is justifiable, based on the variables examined and the research design employed, it is questionable when

examined from the perspective of a number of other criteria. First, only two legal variables were employed as independent controls in the study. In addition to the type of offense of which only three--burglary, murder, and rape--were considered and type of plea either guilty or not guilty, there exists other legal characteristics potentially associated with the offender, which, if considered, might account for the unequal sentences imposed on black and white offenders. Second, because the research design employed by Bullock involved tabular analysis, it is not possible to determine the relative extent to which each of the independent variables contributes to the total sentencing outcome. The issue here is the amount of variance that the independent variables acting in consort with one another explain, in regards to the length of sentence imposed. While race appears to account for the most variance explained, given the absence of any significant change in either the direction or magnitude of the primary relationship between race and sentence when controls were introduced, it is nonetheless not possible to determine from the data presented by Bullock whether race accounts for a large or small percentage of the variance in length of sentence. Similarly, this limitation applies to the remaining variables which were found to be associated with length of sentence. If these set of variables account for only a small percentage of the total explained variances, then the probability exists that a conceptually different set of factors or at a minimum several relevant factors omitted in the original set of variables need to be considered. In re-analyzing Bullock's work, Hagan (1974) offers support for this contention. He found that race accounted for

less than 2 percent of the variance in length of sentence (Hagan: 1974; p. 364). And while the areal factors were not re-analyzed by Hagan it can be assumed that their contribution to the amount of variance explained is somewhat less, since race appeared to have the strongest relationship to sentence in the bivariate tables presented by Bullock.

The second of the four studies to examine the influence of place of residence on sentencing outcomes was undertaken by Pope (1976). Data for the study consisted of 32,694 felony arrestees from 12 northern California counties for the years 1969 through 1971. The author's purpose in undertaking the study was twofold. First, to determine whether offender based transaction data might provide greater insights into the complex issue of sentencing disparity, and secondly to determine whether the rural-urban variable contributes significantly to variations in criminal sentences. The dependent variable of interest included both the type of sentence and length of sentence, where such latter information was available. Two sets of independent variables were employed. The first included extra-legal variables such as age, sex, race and the primary variable of interest, residence. The second set of variables included legal factors such as prior record, present criminal status, and original charge at arrest. These legal variables were primarily employed as control variables. In addition, the sample, for purposes of analysis, was divided into convictions occurring at the superior court level and conviction occurring at the municipal court level.

With respect to the dependent variable type of sentence, a number of the findings provide support for the contention that sentencing

disparity is associated with place of residence. At the lower court level, urban offenders were more likely than their rural counterparts to receive a probation sentence, irrespective of the legal variables criminal charge, present criminal status, and prior record. Introduction of the sex variable into the relationship while simultaneously controlling for the three legal variables yielded similar results. However, in rural courts, females were more likely than males to receive a sentence of probation; 46 percent of the female offenders were granted probation compared to 35 percent of the male offenders (Pope: 1976; p. 209). In urban courts a similar trend occurred. Forty-two percent of the male offenders were given jail sentences as compared to 31 percent of the female offenders. At the superior court level only marginal differences were observed between place of residence and type of sentence. Nor did introduction of the sex variable alter the relationship substantially. However, when a second control variable, prior conviction, was introduced into the analysis, a slight but depressing effect on the original relationship occurred, indicating that prior record accounts for a portion of the variance in the type of sentence for both rural and urban male and female defendants (Ibid.; p. 212).

With respect to race, rural courts at both the superior and municipal level tended to sentence blacks to more severe types of sentences than whites. At the municipal court level 44 percent of the white as compared to 56 percent of the black defendants were given jail sentences. At the superior court level, where a prison sentence was included as a possible sentence, 17 percent of the white defendants as compared to 28

percent of the black defendants received such sentences (Ibid.; p. 213). Moreover, these results were obtained while simultaneously controlling for the three legal variables, prior record, present criminal status, and original charge at arrest. In urban courts, at both the superior and municipal level, no substantial difference in type of sentence was observed when the legal control variables were introduced into the analysis.

These findings regarding type of sentence are suggestive on several accounts. First, they indicate that legal variables may partially account for observed differences in sentences imposed on black defendants in urban lower courts. However, in rural courts and at both the superior and municipal level, introduction of the legal variables does not diminish the original relationship and blacks receive disproportionately more severe sentences than whites. This suggests that other unrecognized factors are operating in rural courts.

With length of sentence as the dependent variable, variations in disparities between rural and urban courts were also found. Both male and female rural defendants tended to receive short sentences--less than 60 days--at the municipal court level. Fifty-six percent of the urban as compared to 74 percent of the rural male defendants and 58 percent of the urban as compared to 77 percent of the rural female defendants received such sentences (Ibid.; p. 215). Conversely, urban courts sentenced a greater proportion of male and female defendants to long sentences--more than 180 days--than did rural courts. For those receiving intermediate stays--61 to 180 days--no substantial differences were

observed for either sex between rural and urban courts. The greatest difference, 8 percent, occurred between female dependants where 21 percent of the urban as compared to 13 percent of the rural females received intermediate sentences. Moreover, these results were obtained while controlling for prior record.

At the superior court level disparate rural-urban differences were also evident notwithstanding the fact that superior courts, as could be expected, generally sentenced a disproportionate number of offenders to long sentences vis-a-vis municipal courts. Although rural as compared to urban offenders received a disproportionate percentage of short sentences the only substantial difference observed was between rural and urban female offenders. Twenty-seven percent of the rural male offenders and 34 percent of the female offenders, as compared to 19 percent of the urban males and 23 percent of the females received short sentences (Ibid.; p. 216). For those receiving intermediate sentences--61 to 180 days--the only noticeable rural-urban difference occurred between females; 40 percent of the urban as compared to 32 percent of the rural females received an intermediate sentence. However, in urban courts a substantial difference was observed in the intermediate sentences imposed on male and female offenders; 27 percent of the male but 40 percent of the female offenders received an intermediate sentence. For those receiving long sentences, urban offenders were more likely than rural offenders to receive such a sentence. Fifty-four percent of the urban males and 37 percent of the females as compared to 44 percent of the rural males and 34 percent of the females received long sentences

(Ibid.; p. 216). However, only the differences between rural and urban males is substantial, 10 percent. Another major disparity among those given long sentences is the substantial difference between male and female offenders. In both rural and urban superior courts a disproportionate number of male as compared to female offenders received a long sentence. In urban courts this amounted to a difference of 13 percent while in rural courts it was 10 percent. Again, these results were obtained while controlling for prior record.

These findings represent the major results of Pope's study. Compared to the earlier study by Bullock, they provide greater insight into the manner in which the rural-urban variable influences sentencing dispositions but in addition, offer greater assurance that place of residence is a legitimate and not a spurious factor in accounting for differences in both type and length of sentence. By simultaneously controlling for the legal factors, prior record, present status, and present charge, at both the municipal and superior court level, while at the same time holding constant the extra-legal variables, greater confidence is afforded the finding that place of residence is, in fact, accounting for variations in both the type and length of sentences imposed on convicted offenders. Bullock's analysis, on the other hand lacked such rigor, especially with respect to controlling for legal variables and as a consequence less certainty can be placed in his findings. In addition to providing more assurance that the relationship between place of residence and sentence is not spurious, Pope's analysis clarifies the condition under which place of residence and sentence are associated.

Like Bullock, Pope's study does contain a number of methodological limitations which leave unanswered several issues of a conceptual nature. First, no tests of statistical significance were employed in any of the tabular data presented. Although a 10 percentage point difference was specified as the criterion for reporting the substantive significance of an observed relationship, this, in itself, does not rule out the possibility that one or a number of the reported relationships were due to the chance factor or sampling bias. While such a possibility seems unlikely, given the sample size and the 10 percent criterion for acceptance of a relationship, the possibility does exist.

Second, and like Bullock's study, no measure of association was employed in describing the various relationships between residence and sentence. In addition to knowing that a relationship exists, it is also beneficial, both practically and conceptually, to know the strength of the relationship. Conceptually, it tells one how important or what substantive significance the variable under examination has in explaining the dependent variable. At the practical level, knowledge of the strength of the relationship can provide information on the amount of variation in the dependent variable that can be attributed to the independent variable(s). As a result we are able to determine the contribution of the independent factor(s) to the outcome or dependent variable and from a practical standpoint can assess the significance of its contribution. This is not possible given the manner in which the data is presented.

A final criticism of Pope's study deals with the manner in which the environmental variable, place of residence, was defined. First, and

like all the variables employed in the analysis, the rural-urban variable was defined in discrete terms. While this choice was no doubt predicated in part by the design employed to analyze the data, it nonetheless limits the precision of the findings uncovered. Assuming that the distinction between rural and urban is one in which either one of these two values possesses in greater degree or proportion one or more characteristics, for example population size, than the other value, then the possibility exists that places classified as rural may be more like places classified as urban than they are with places contained within their own classification. That is, if a classification scheme defines as rural places with less than 10,000 population, and urban places with more than 10,000 population then places with populations of 9,000 and 11,000 are more alike than places with populations of 11,000 and 50,000, notwithstanding the fact that the latter two are defined as urban.

Second, the criterion for determining the values rural and urban was based on "various demographic characteristics provided in the 1970 census such as population size, land usage, city size and the like" (Ibid.; p. 206). Counties were then classified as rural or urban. However, no mention is made of the manner in which the criteria were scaled and the cutoff point used to determine what would be considered rural and what urban. It is thus not possible to replicate Pope's study _in toto_, since it is impossible to determine how his primary variable of interest was arrived at.

The third of the four studies to examine the relationship between place of residence and sentence was undertaken in 1975 by Chiricos and Waldo. Data for the study was derived from prison admission summaries

of felony offenders provided by the adult correctional agencies of three southern states, North Carolina, South Carolina and Florida, for the periods January 1, 1969 to April 30, 1973, January 1, 1969 to June 30, 1971, and June 1, 1969 to May 30, 1970, respectively. The data set was further refined by including for analysis only those offenses for which a minimum of 20 offenders were received by any one state for the specified time periods. This resulted in a final sample of 10,488 inmates sentenced for seventeen specific offenses.

The primary independent variables, in addition to type of offense included SES, race, age, the rural-urban character of the sentencing county and the inmates' prior criminal record. However, data for the latter four factors were consistently available only for Florida inmates and therefore the major focus of the data analysis deals with the Florida sample of inmates. The dependent variable, sentence length, was defined as the number of months imposed by the sentencing court.

The primary purpose of the study was to test the hypothesis derived from 'conflict theory' that "when [criminal] sanctions are imposed, the most severe sanctions will be imposed on persons in the lowest social class (Chambliss and Seidman: 1971, p. 475)". Contrary to expectation the negative association between SES and length of sentence failed to emerge in any of the seventeen specific offenses examined for each of the three states. In order to understand the absence of the expected relationship, a stepwise multiple correlation analysis was conducted on the Florida sample. Of interest here is the impact of the rural-urban factor on the dependent variable length of sentence and its

significance relative to the other six predictor variables employed. The authors defined their rural-urban variable as follows:

> [A]ll counties were ranked in terms of population density, total employed in non-agricultural labor and total dollar value of all sales conducted within the county. The average of the three ranks was designated as the county's index of urbanization. Thus, counties with the lowest average rank were considered the most urban (Chiricos and Waldo: 1975; p. 759).

Of the thirteen separate offense categories examined the rural-urban variable emerged as the zero order variable on two of these, auto theft and drug offenses. For the former the degree of association between it and length of sentence was R = .27 and R^2 = .07; for the latter R = .20 and R^2 = .04.

In five of the offense categories, second degree murder, forcible rape, armed robbery, unarmed robbery and escape, the rural-urban variable was the first order variable entered into the equation. The greatest impact of the rural-urban variable at this stage occurred for the offense second degree murder. After partialling out the effects of the rural-urban variable from the zero order variable race, it was added to race and resulted in an increase in R from .26 to .35 and an increase in R^2 from .07 to .12 (Chiricos and Waldo: 1975; pp. 764-765). For the remaining four offense categories the addition of the rural-urban variable only increased R by .03 or .04 units and R^2 or the amount of variance explained by one percent.

For the two offense categories voluntary manslaughter and larceny, where the rural-urban variable was the third variable entered into the correlation equation, its addition led to an increase in R of .04 and increased R^2 by .01 for both offenses (Ibid.; pp. 764-765). Thus, the

addition of the rural-urban variable at the second order entry level only accounted for an increase of one percent in the prediction of sentence length.

For the remaining four offense categories where the rural-urban variable was entered as either the third, fourth or sixth order variable, its addition did not substantially increase R or R^2. In fact, only for the offense category receiving stolen property where the rural-urban variable was the fifth variable entered into the correlation equation was there any increase in either R or R^2. Moreover, its addition only increased R by one unit and R^2 by one percent.

Compared to the previous two studies the findings of Chiricos and Waldo provide a more detailed understanding of the role of the rural-urban factor and its relationship to sentencing outcome. In addition to confirming the earlier findings, especially that of Pope which intimated at an association between the rural-urban variable and sentencing, Chiricos and Waldo are able to specify its importance relative to other legal and social factors regarded as key determinents of sentencing outcome, e.g., type of offense, prior record and race. This latter aspect of their study is principally due to the more sophisticated methodology they employed as compared to the two earlier studies by Bullock and Pope.

Another factor which enhances the findings of Chiricos and Waldo rests in the structure of their research design. Because their analysis examined sentencing outcomes within offense categories rather than at a more general level, as when offenses are grouped together for example, the seriousness of the offense is thereby effectively controlled.

Since the length of the sentence an offender receives is in part a function of the seriousness of the offense committed, controlling for that factor increase precision and decreases the possibility that the findings are spurious.

Notwithstanding the fact that Chiricos and Waldo's study is both conceptually and methodologically superior to the two previous studies, it does contain a number of limitations. First, and as acknowledged by the authors, the study deals only with incarcerated felons and as such it cannot be viewed as a complete assessment of the sentencing process. A more detailed assessment would include those offenders, including misdemeanants, sentenced to terms of probation as well as those sentenced to prison. Knowledge of the two factors, that is misdemeanants as compared to felons and probationers as compared to those institutionalized, would add specificity to the conclusions which could be made about the sentencing process.

One of the major limitations from the perspective of this present study is that Chiricos and Waldo were primarily concerned with the relationship between SES and sentencing and not the rural-urban factor. As a consequence it is difficult to properly access the relationship between the rural-urban factor and sentencing. For example, while their multiple correlation analysis does indicate that the rural-urban variable is a saliant factor in the sentencing process--for seven of the 13 crime categories examined, the rural-urban variable was either the 0-order or 1st order variable entered into the equation--it is not known if the variables which impact on that process are similar and of equal

importance in both rural and urban jurisdictions. A partial answer to this question is provided, however, in the following study.

The final study to examine the influence of court location on sentence was conductdd by Hagan (1977). Data for the study was based on two samples of convicted offenders from the province of Alberta in Canada. The first sample of 974 offenders consisted of persons admitted to the five largest prisons in the province from February 15 to April 15, 1973. The second sample consisted of 507 questionnaires gathered from probation officers' pre-sentence reports on the above offenders for whom the county requested such reports. Each sample covered all jurisdictions in the province. The major purpose of the study was to provide an answer to the empirical question: "What are the consequences of urbanization and bureaucratization for the judicial treatment of minority group offenders?" (Hagan: 1977; p. 608). Minority in this study was defined as persons with Indian or Metis (i.e.) Indian and French lineage.

The independent variables included both legal and extra-legal factors such as ethnic background, prior convictions, seriousness of present offense, charges, the probation officer's perception of the offender's demeanor defined as a value of one to five on a favorableness scale, the probation officer's perception of the offenders likelihood of success if placed on probation, similarly defined, and the probation officer's recommendation regarding sentence. The dependent variable--final disposition--contained the values: absolute discharge, conditional discharge or fine, probation, and prison. Both variables, the

probation officer's recommendation and the final disposition of the court, contained identical values. These variables were employed in the initial analysis. The second analysis involved the 'prison data'. Three independent variables--ethnic background, type of jurisdiction, and level of alcohol use, along with the dependent variable--final disposition--were employed in this stage of the analysis.

With respect to the initial analysis dealing with the pre-sentence data, the sample of 507 offenders was divided into rural and urban. Urban jurisdictions included the two largest cities in the province, both with populations in excess of 400,000. Rural was defined as the rest of the province. Analysis of this, the pre-sentencing data, employed the technique of path analysis, a variant of multiple regression analysis.

Initially the analysis at this stage focused on the unstandardized linkages between the probation officer's recommendation of sentence, and the ethnic factor. For the urban sample, no linkage between ethnicity and recommendation was found which could be regarded as "extra-legal". Any relationship between the two variables was mediated by the legal variable prior record. In the rural sample however, this was not the case. Rural probation officers it appears consider the ethnic factor in formulating their recommendations (Ibid.; p. 602).

In order to compare the two samples the unstandardized regression coefficients were used to decompose the effects of ethnic background on the probation officers' recommendation in the two samples. The results of this process indicated that while the total effects of ethnic

background on recommended sentence were similar, .41 in the rural sample and .38 in the urban, the manner in which these effects are imposed differs substantially. In the urban sample 66 percent of the effects or variance in the relationship between ethnicity and recommended sentence is accounted for by prior record, while in the rural sample only 22 percent is so accounted for (Ibid.; p. 605). Similarly, the direct impact of ethnicity on recommended sentence in the urban sample is 11 percent, in the rural sample it was 53 percent. Based on these findings, Hagan concludes that "the urban sample seems to represent a rather legalistic pattern of decision making, while the rural sample does not" (Ibid.; p. 605). The implication, of course, is that extra-legal factors and specifically the ethnic origin of the offender influences the type of disposition he/she receives.

In order to address this issue, a second analysis employing the data collected on the 974 persons admitted to prison was undertaken. The major variables of interest were dichotomized and included ethnic background, type of jurisdiction, and alcohol use. The dependent variable was the manner in which offenders ended-up in prison: either sentenced directly or as a result of defaulting on fine payments. The technique used to analyze the data was a modified approach to multiple regression analysis developed by Goodman for dichotomous variables (Goodman, 1972). The major finding in this part of the study was that while Indian and Metis were more likely than white offenders to be sentenced to prison in default of fine payments, this was more acute in rural than in urban areas (Hagan: 1977, p. 607).

In assessing Hagan's study, a number of methodological and conceptual issues need to be considered. With respect to the analysis conducted on the 507 offenders for whom pre-sentence data was available, the dependent variable appears to be the probation officer's recommendation and not the sentence imposed by the court. While the direct effects of this recommendation on final sentence is r = .66, indicating a strong association between the probation officers recommendation and judicial disposition, the former cannot be accepted as evidence of the latter. Thus, any generalization regarding the actual judicial dispositions imposed on offenders is not possible.

Second, dichotomizing the sample into rural and urban yields a lack of precision with respect to measurement. While this is not as much of a problem in this study as compared to the previous two studies since rural and urban appear to be quite polarized, it nonetheless represents a potential limitation in the study. Another problem with respect to dichotomizing the sample is that one is unable to determine the influence of the rural-urban variable relative to the other independent variable employed in the analysis. That is, what proportion of the overall sentencing variance is attributable to the rural-urban factor when the interaction effects between it and the other independent variable are controlled? However, it was not the purpose of Hagan's study to address this issue and consequently he cannot be critized on its account. Yet the issue is a significant one and deserves to be mentioned.

A third limitation of the study pertains to the conclusion that "the problem of native people going to jail is most acute in rural areas"

(Ibid.; p. 607). While the data initially supports this conclusion it nevertheless leaves unanswered the issue why. The tacit reason for this disparity appears to reside in the bias and prejudices of the legal officials in rural areas. However, and as Pope's study indicated, introduction of legal variables into an analysis may lead to the finding that initial bias or prejudice evident in the bivariate relationship is mediated by the introduction of legal variable. Thus, Hagan's conclusion regarding rural native people may have face validity but in actuality it may represent a spurious relationship.

Prior to comparing the results from the four studies several qualifications regarding the setting in which the three studies occurred need to be examined. First, all four of the studies were undertaken in different geographical regions. Bullock's and Pope's samples were drawn from offender populations in Texas and California respectively. Chiricos and Waldo employed felons from the state of Florida while Hagan's sample was based on offenders from a western Canadian province. In addition, approximately fifteen years separate Bullock's study from the other three. Both of these factors, the time element and location of the studies needs to be taken into consideration since either can affect the validity of any conclusions drawn from a comparison.

Another problem in trying to draw conclusions regarding the influence of the rural-urban factor in judicial sentencing rests in the nature and composition of the samples themselves. Two studies, Bullock's and Chiricos and Waldo's deals with institutionalized felony offenders only and in the former conviction was based on a jury decision while in the

latter it involved both judges and juries. In the other two studies, the samples were composed of both felony and misdemeanor offenders and although not stated it is assumed that conviction occurred at the hands of both judges and juries in Pope's study, while judges in Hagan's study appear to be the decision makers. Moreover, in Hagan's study it appears that the probation officers recommendation regarding disposition was employed as the dependent variable in the first half of the analysis and not the actual judicial disposition as in the previous studies.

A third qualification with respect to drawing conclusions from a comparison of the three studies is found in the nature of the dependent variables employed. In Bullock's study, length of sentence, the dependent variable, was dichotomous and contained the values long and short sentence. Long sentence represented ten or more years while short sentences were defined as sentences under ten years in length. Pope on the other hand, employed two dependent measures, length and type of sentence. Length of sentence contained three values, less than 60 days, 61 to 180 days, and more than 180 days. Type of sentence included jail, probation and other, and for the superior court sample the category prison was added. Chiricos and Waldo employed a continuous measure based on the length of sentence in months while Hagan in his study employed type of sentence as his dependent variable with the categories--absolute discharge, conditional discharge or fine, probation, and prison as possible values.

A final limitation pertains to differences in the way the environmental variable rural-urban was defined. Urban in Hagan's study was

defined as the two largest cities in the province, both with populations in excess of 400,000 while rural was defined as all remaining areas in the province. Bullock, in his study, defined urban as counties with at least one city with a population of 50,000 or more. Rural was defined as counties with no cities of 50,000 population. Pope, it appears, used a scaling technique constructed from an unreported number of common criteria--population size of the county, extent of land usage, etc.--that have traditionally been employed to define rural and urban. However, the manner by which counties were eventually designated rural or urban is not reported. Chiricos and Waldo employed a method similar to Pope's. All counties were ranked in terms of population density, total employed in non-agricultural labor and total value of all sales conducted within the county. The average of the three ranks was designated as the county's index of urbanization and counties with the lowest average rank were considered the most urban.

Having delineated the major issues which must qualify any comparison of the results from the three studies, it is appropriate at this point to proceed with such a comparison. Of greatest significance is the finding in all four studies of an association between the rural-urban variable and sentencing outcome, defined by either type or length of sentence. Hagan's results revealed that in rural areas extra-legal variables have a significant impact on the sentencing recommendation of probation officer not evident in urban areas. Pope's results go a step further by specifying the nature or the effect that extra-legal variables have on the sentences imposed by the courts. Rural as compared to urban courts were more likely to impose jail as compared to probation

and other types of less severe sentences, irrespective of legal control variables. Moreover, rural courts tended to sentence blacks more severely than whites. These differences tended to remain even when legal control variables were introduced. Similarly, Hagan found that while native Indian and Metis people were more likely to be sent to prison in default of fine payments, this situation was most acute in rural than in urban courts.

Regarding length of sentence, conflicting results were found. Bullock's study found that long sentences were more likely to be imposed by urban rather than rural courts. However, the coefficient of association, although omitted, was reported as being quite low. Pope on the other hand, found that when prior record was controlled for at the municipal court level, no differences in the length of sentence were found between rural and urban courts. However, at the superior court level it was found that females were frequently sentenced to serve less time than their male counterparts, even when prior record was controlled and that this difference was more pronounced in urban than in rural superior courts. Given that Pope's study utilized a more rigorous methodological analysis by employing a greater number of salient control factors than did Bullocks, coupled with the fact that the association between residence and sentence in Bullock's study was quite low, Pope's results are afforded a greater degree of confidence.

While the findings from the four studies tend to support the general assumption that variation in both type and length of sentence imposed on convicted offenders is attributable to the rural-urban factor,

two of these studies go beyond this point by providing additional detail regarding the role of the rural-urban factor. Chiricos and Waldo's study reveals that the rural-urban variable is of considerable importance in the sentencing process relative to other social and legal factors. For the thirteen crime categories examined and for which thirteen separate multiple correlation equations were constructed, the mean rank of the rural-urban variable relative to the six social and legal variables also included in the question was third. And although the amount of variation attributable to the rural-urban variable averaged only two percent across the thirteen crime categories, for certain individual categories, auto theft, for example, this increased to a high of seven percent. Hagan's study on the other hand provides insight into the manner in which legal and social variables impact on the sentencing process in rural and urban areas. In rural areas for example the ethnic background of the offender appears to play a more important role in the sentencing process than in urban areas. Fifty-three percent of the effect of the probation officer's recommendation of sentence is direct in rural areas while in urban areas it is only 11 percent. Conversely, in urban areas the offenders prior record appears to be a more important factor in determination of sentence than in rural areas. Sixty-six percent of the effect of ethnic background on sentence recommendation is mediated by prior record in urban areas while in rural areas prior record accounts for only 22 percent of this effect (Hagan: 1977; p.605).

These findings provide a relatively strong base for assuming that the criminal sentences imposed on convicted offenders are shaped and

probably influenced by the attitudes and values which exist and in a general sense characterize rural and urban areas. Whether this situation prevails in a rural state such as Iowa and is capable of providing an explanation for the apparent sentencing disparity at the judicial district level, discussed in Chapter I, is explored in further detail in the Chapters to follow.

At this point the general and guiding hypothesis of the study can be stated. It is as follows: The type of criminal sentence imposed on certain groups of convicted offenders by criminal courts in rural areas is, ceteris paribus, more severe than the type of criminal sentence imposed on similar groups of convicted offenders by criminal courts in urban areas, where greatest severity is defined as institutionalization and least severity is defined as probation. A second hypothesis follows from the first: The length of the criminal sentence imposed on certain groups of convicted offenders by criminal courts in rural areas is, ceteris paribus, greater than the length of the criminal sentence imposed on similar groups of convicted offenders by criminal courts in urban areas, where length of sentence is defined as the minimum number of months a convicted offender is sentenced to serve by the criminal court before being considered eligible for release. The null hypothesis for both of the above is that there is no difference in either the severity or length of sentence imposed by the criminal courts in rural and urban areas.

Legal and Extra-legal Factors In Criminal Sentencing

As alluded to previously in addition to the rural-urban variable a number of other variables, representing legal and extra-legal factors have been found to be associated with criminal sentencing. While relatively few studies were found which focused on the rural-urban factor a large number has examined the impact of legal and extra-legal variables on the sentencing process. And while the results from these studies have found no definite trend, the general, although somewhat guarded consensus is that extra-legal factors, in addition to the accepted legal ones, also seem to influence the sentencing decision. In this section previous studies which have examined these two facets that impact on the sentencing decision are discussed in order to determine the more salient variables which might be included in any sentencing model.

A search of the sentencing literature located twenty-two studies that have focused on the relationship between legal and extra-legal factors and their impact on sentencing of convicted adult offenders. In order to simplify the presentation, since the primary purpose at this point is one of delineating the nature of the legal and extra-legal factors considered, the studies have been arranged in chronological order denoting the major legal and extra-legal variables employed. This information is summarized in Table I.

Of initial interest is the relatively consistent selection of certain legal and extra-legal variables of previous studies. The type and seriousness of the present offense and the offender's prior record as

Table I. Factors and Accompanying Variables Considered as Potential Determinants of Criminal Sentencing

Study	Legal Factors						Extra-legal Factors					
	Specified Offense(s)	Prior Record	Number Charges	Circumstances Offense	Type of Counsel	Other Legal	Race	Sex	Age	Occupation or SES	Race Victim	Other Extra-legal
Sellin 1928	x						x					
Martin 1934							x	x	x	x		
Johnson 1941	x						x				x	
Garfinkle 1949	x						x	x			x	x
Johnson 1951	x						x	x		x		x
Green 1961	x	x	x				x	x	x			x
Bullock 1961	x	x					x					x
Jacob 1962	x						x					
Wolfgang 1962*	x			x	x		x		x	x		x
Bedeau 1964	x	x		x			x	x	x	x		x
Green 1964	x	x	x				x				x	
Bedeau 1965	x	x		x			x	x	x	x		x
Partington 1965	x						x					
Wolf 1965	x			x			x		x			
Forslund 1969							x		x	x		x
Nagel 1969	x	x	x				x	x	x	x		x
Judsen 1969*	x	x		x		x	x	x	x	x		x
Tiffany 1972*	x	x			x		x		x			x
Wolfgang 1973*	x	x		x	x	x	x		x		x	
Chiricos 1975*	x	x				x	x		x	x		
Pope 1976	x	x					x	x	x			
Hagan 1977		x	x				x					x

*Indicates multiple authors.

measured by either prior arrest(s) or conviction(s) are the most often considered legal variables while race, sex, age and occupation or SES are the most consistently considered extra-legal variables. While several of the studies contained in Table I under the category labels Other Legal and Other Extra-legal did consider a number of variables not specified in Table I, such as criminal status at the time of sentencing, type of plea, whether the offender was represented by counsel, the offenders formal educational level and martial status, these variables were only contained in one or two of the studies at most. That is, those legal and extra-legal variables included under the category Legal and Extra-legal Other were common to no more than one or two of the twenty-two studies. Table II contains a description of these variables and the studies from which they came.

Legal Factors

Offense: From a legal as well as a rational viewpoint one of the more obvious variables in determining sentencing disposition would be the type and seriousness of the offense the offender is charged with. Table I indicates that since Sellin's initial study in 1928, type of offense has routinely been considered, primarily as a control variable, in studies dealing with sentencing disparity. Both Green (1961) and Pope (1976) in their research, found that the seriousness of the offense was among the foremost determinants of sentence.

Prior Record: Next to offense, an offender's prior record is the most consistently considered legal variable. Approximately half (12) of the studies in Table I considered an offender's prior record.

Table II. Nature of Variables Considered in Categories Labelled 'Other' Legal and 'Other' Extra-legal From Table I

Category	Variable	Study
'Other' Legal	Previous adult imprisonment	Judsen 1969; Wolfgang 1973
	Previous juvenile incarceration	Chiricos 1975
	Present criminal status	Judsen 1969; Wolfgang 1973
	Presentence investigation	Green 1961; Hagan 1977
	Plea--guilty vs. not guilty	Bullock 1961; Wolfgang 1973
	Trial--judge vs. jury	Garfinkle 1949; Tiffany 1972
	Length of trial	Judsen 1969; Wolfgang 1973
'Other' Extra-legal	Northern or southern born	Green 1961
	Native or foreign born	Wolfgang 1962; Bedeau 1964, 1965
	Marital status	Wolfgang 1962, 1973; Judsen 1969
	Educational level	Johnson 1957; Nagel 1969
	Neuropsychiatric examination	Green 1961; Judsen 1969

In the majority of instances, prior record served as a control variable. However, both Green (1961) and Tiffany et al. (1972), found a statistically significant relationship between an offender's prior record and the sentence received.

Number of Offenses: The third legal variable contained in Table I is the number of offenses the offender is charged with in regard to his/her present appearance before the court. Four of the studies considered this variable in their analysis, again primarily as a control variable.

Six of the studies considered the circumstances surrounding the offense committed. Judsen (1969), for example, in his study took into account whether the offense was 'bloody', that is whether undue violence and bloodshed accompanied the offense. Three studies--Wolfgang (1962), Bedeau (1965), and Wolf (1965)--considered whether the offense, which in their studies involved murder, was a felony or non-felony murder.

Extra-legal Factors

Race: With respect to the extra-legal variables, race of the offender is by far the most considered characteristic or variable. In all twenty-two studies it has been viewed as a major source of variation in sentencing, and in most studies has been the primary variable under investigation. While the majority of these studies has concluded that the race of the offender is a significant factor in determining the sentence imposed by the court, a recent re-analysis of several of the studies contained in Table I found the strength of the association to be quite small and the maximum amount of variation accounted for by the

racial factor in any study to be 8 percent (Hagan: 1974; p. 363).

Age: Next to race, age of the offender is the most considered variable in sentencing studies. Approximately half (13) of the studies examined the relationship between age and sentence. While a number of the studies (Green, 1961; Pope, 1976) uncovered a relationship between age of the offender and sentence, association was very slight and in Green's study the relationship lost statistical significance when offense and prior record were introduced into the relationship.

Sex: Nine of the studies examined the relationship between the variable sex and sentence. Typical of findings in this area are the results from Green's (1961) study. In the initial bivariate analysis, sex of the offender and the sentence received are related; however, the association is quite small, and when the type of offense is held constant for those offenders with no prior convictions, the resulting relationships are reduced below statistical significance. Similar results were uncovered by Judsen (1969) and Pope (1976). However, in the latter study differences in the sentences imposed on males and females tended to remain in municipal as compared to superior courts regardless of prior criminal history (Pope: 1976; p. 217).

SES: Combining the two categories SES and Occupation, nine studies considered the relationship of these two factors in sentencing disposition. In a re-analysis of the data from several of these studies, Hagan (1974) found that both before and after controls for type of offense were introduced, a statistically significant relationship occurred between SES and sentence, in studies dealing with non-capital cases (Hagan: 1974; p. 373); however, the association was slight.

Moreover, in a later study, Nagel (1969) found that when both type of offense as well as prior record were simultaneously controlled, the relationship between SES and sentence became non-significant. Regarding capital cases, somewhat inconsistent findings emerge. Bedeau (1965) found no statistically significant relationship between SES and sentence while Judsen et al. report a statistically significant relationship both before and after controls for prior record are introduced. In all studies, however, the strength of the association between SES and sentence is slight and in no study does it account for more than 4 percent of the explained variance.

Victim: The fifty extra-legal variable considered in studies focusing on sentencing and disparity, is the relationship between the race of the victim and the offender and the sentence received. Six of the studies contained in Table I examined this relationship. Green (1964) found no support in his analysis for an inter-racial hypothesis. However, his data were based on non-capital cases. Regarding capital cases, three of the five studies found a statistically significant relationship. Only in Green's study were measures taken to control for contaminating variables such as prior convictions and type of offense. In the five studies concerned with capital offenses no control variables were employed.

Counsel: The final extra-legal variable which was considered to any extent was whether counsel was retained or appointed. Three of the studies included this variable in their analysis.

To summarize, twenty-two studies were located which considered in one manner or another the influence of legal and extra-legal factors on

sentencing disposition. Six extra-legal variables--race, sex, age, SES or occupation, race of victim and whether counsel was retained or appointed--and four legal ones--seriousness and/or type of offense, prior record, number of present charges and the circumstances surrounding the offense--were found to be the most consistently considered variables in these studies designed to uncover the existence of disparity in criminal sentencing. Although neither consistent nor exhibiting a strong association with final sentence, each of the four legal and six extra-legal variables in one study or another was found to be associated with final sentence. Moreover, the consistency with which these variables are employed in studies of sentencing disparity provides an underlying rationale for regarding them as key variables which should be considered in any study focusing on the issue of sentencing disparity.

In Chapter IV, which follows, the research design and methodology to be employed in this study is presented. Included is a discussion of the data base to be employed, the manner in which it was collected and the variables to be included in the study.

CHAPTER IV

DESIGN AND METHODOLOGY

In the previous chapter it was concluded, based on a review of relevant research studies, that the rural-urban variable could tentatively be assumed to be associated with judicial sentence. In addition, a number of legal and extra-legal variables particular to and associated with the individual offender were also found to be associated with judicial sentence based on a review of the relevant literature. Left unanswered, however, was the question of what influence, if any, the rural-urban factor has when legal and extra-legal factors are simultaneously incorporated into a sentencing model.

In this chapter the design and methodology employed in this study to answer that question and a number of other related questions, are presented. The chapter begins with a presentation of the data employed in the study including its source and collection procedures. This is followed by a discussion of the variables utilized in the study. The chapter concludes with a discussion of the analytical and statistical techniques employed.

Data

Data for the study was collected between the months of October and December, 1976, by the staff of the Iowa Advisory Commission on

Corrections Relief. As a member of the staff the present author was involved in the data collection phase of that project as well as the data cleaning, preparation and analysis phases. The data set includes both legal and extra-legal offender-related data as well as geographic data regarding the county where the offender was adjudicated, and the offender's county or residence. A description of how the data set was collected is presented below. In addition, a number of limitations of the data are discussed.

Information regarding the number of offenders in the correctional system of Iowa was obtained by the Commission staff from the Bureau of Correctional Evaluation within the Iowa Department of Social Services.[1] The Bureau has been collecting client-specific information on all community corrections programs since it began in November 1974. From that Bureau, the Commission obtained offender data for all of the post-conviction community-based correctional programs in Iowa. This information was provided in two sets: first, a complete set of all of the client characteristics data which existed in a relatively 'clean' form in the Bureau's computerized records and second, data from a more recent time period which had accumulated in the Bureau's offices from January to October 1976 and which were in various stages in the data management and editing process.

Because institutional offender specific data had not been collected by the Bureau--this component of data management had not yet been

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[1]The major portion of this presentation is taken from an unpublished report presented to the 67th General Assembly of Iowa by the Advisory Commission on Corrections Relief, Adult Corrections In Iowa (March, 1977), pp. 60-61.

implemented--it was necessary for the Commission staff to collect institutional offender specific data compatible with the data for offenders of non-institutional programs. This data was collected from the Iowa Board of Parole files.

The three sets of data--two from the Bureau of Correctional Evaluation and one collected by the Commission staff from the Board of Parole--were then merged into a single computer file to allow program comparisons of the similar data. A number of problems were encountered in this process which places some limitations on the data.

There were several duplications of cases within the two batches of data from the Bureau of Correctional Evaluation. In addition the second batch of data--that which had accumulated in the Bureau's offices from January to October, 1976--was not completely edited leaving an unknown number of errors in the 3,500 cases. Further, the data collected from the Board of Parole files were not comprehensive. Due to file inadequacies or collection errors, approximately 200 or 15% of the 1948 total institutional cases were not included. Of the cases which were included, complete data were collected for a systematic sample of approximately 35 percent of the cases. For the remaining cases, approximately 60 percent of the data items were completed.

As a consequence of these problems, the information relating to offender characteristics cannot be considered to be an exact portrayal of the correctional population at the time of data collection. Yet, despite the incomplete and sometimes inaccurate files, cross-validations of the data led to the conclusion that information on offender characteristics can be relied upon with some confidence as a close estimate of the

characteristics of the correctional population in Iowa, particularly as a basis for distinguishing between the various correctional programs offenders were sentenced to across the state.

Thus, at the end of December 1976, a total of 9,170 convicted offenders were in the custody or supervision of programs administered by, or funded through, the Division of Corrections. Not included in this number are persons serving jail sentences or persons under the supervision of programs not connected administratively or fiscally with the Division of Adult Corrections (i.e., mental health, alcohol, drug and other such programs).

From this initial total of 9,170 cases 2,126 were retained for inclusion in the present study. Three criteria were employed for determining which cases would be retained. First, only those cases where assignment to a correctional program occurred through the Iowa criminal court were retained. This excluded such cases as those assigned to the Iowa correctional system by federal agencies or by other states as well as individuals awaiting trial but assigned to pretrial programs. This resulted in 4,849 cases being retained and entered into the second stage for consideration.

Second, of these 4,849 cases only those cases where year of arrest occurred in 1975 and year received by the Division of Corrections was either 1975 or 1976, or where year of arrest occurred in 1976 and year received by the Division of Corrections was 1976 were retained. This resulted in 3,295 cases being retained for inclusion and consideration at stage three.

Third, of the 3,295 cases only those involving a felony offense were retained. This yielded 2,126 cases.

This sample was decided upon for several reasons. First, the study deals with judicial sentencing and specifically judicial sentencing by the criminal court. Thus it is appropriate that only cases sentenced directly by the criminal court be considered.

Second, selecting only cases that are based on the 1975-1976 criterion, discussed above, provides increased assurance that the sample closely reflects the actual population of offenders sentenced in the years 1975 and 1976. If cases prior to 1975 were included in the sample this would result in institutional cases being overrepresented, for example, and probation cases being underrepresented for these years since institutional offenders receive a longer sentence on the average--a conservative estimate would be in excess of two years, whereas probation cases are generally terminated by the end of the second year. Table III contains data for felony offenders sentenced to either terms of probation or institutionalization by the Iowa criminal court for the years prior to 1975 as well as the years 1975 and 1976. A comparison of the two categories reveals that as the year received by the Division of Corrections moves towards 1976, which also represents the year in which the data was collected, the proportion of offenders in institutions as compared to those on probation decreases. For example, prior to 1972 there are no probation cases whereas institutional cases account for approximately 10 percent of the total sample of institutional offenders. Moreover, it is not until 1975 that the percentage of probation cases

Table III. A Comparison of Iowa Felony Institutional and Probation Cases as of December 1976 According to Year Received

Category	Year Received																	
	Prior to 1960		1961-1970		1971		1972		1973		1974		1975		1976		Total	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Institution	1.0	(3)	6.0	(18)	1.7	(5)	3.0	(9)	5.7	(17)	10.5	(31)	45.0	(133)	27.0	(80)	100	(297)
Probation	0	(0)	0	(0)	0	(9)	0.2	(5)	0.5	(12)	3.4	(84)	45.7	(1125)	50.1	(1231)	100	(2457)

begins to exceed the percentage of institutional cases. Keeping cases received by the Division of Corrections prior to 1975 would thus result in a disproportionate number of institutional cases vis-a-vis probation cases, since the average institutional offender is still serving his or her sentence while the average probationer has probably been terminated. By using only 1975 and 1976 cases greater assurance is afforded that the sample is proportional to and closely representative of the actual population of offenders sentenced in 1975-1976 by the courts to institutions or probation.

Third, only felony cases were employed rather than both felonies and misdemeanors because offenders placed on probation or institutionalized for misdemeanor offenses are normally given shorter terms than offenders institutionalized or placed on probation for felony offenses. For example, jail terms for misdemeanants are usually one year or less. Therefore, including misdemeanants in the present sample would underrepresent their actual numbers in the population of such offenders for the years 1975 and 1976. Moreover, and of greater importance for excluding misdemeanor offenses is the fact that misdemeanants given jail terms were not readily available when the original sample was collected and therefore including probation misdemeanants in the present sample would give those cases equal parity with felony probation cases. However, the fact of the matter is that both groups of probationers represent different populations of offenders.

Further justification for considering only felony offenders rests on the premise that felony offenses are of a more serious nature and carry more severe sanctions or penalties than do misdemeanor offenses.

Consequently, if sentencing disparity did exist, it would probably be more pronounced among felony offenders and thus a more vocal policy issue.

Variables

Four factors, namely, environmental, legal, extra-legal and dispositional or sentencing outcome, define the major concepts under study. Each factor along with the variables contained within it will be discussed. A table, Table V, page 94, containing the factors and their respective variables is included at the conclusion of this section.

The environmental factor contains one variable, county of adjudication. This variable is a continuous measure and its associated values denote the percentage of rural-urban composition within each of the 99 counties.

Initially, all of the 99 counties based on a number of criteria including: 1) population size, 2) population per square mile or density, 3) percentage of land devoted to agricultural use, 4) total value of all retail sales, and 5) number of establishments employing 20 or more persons were ranked in either ascending or decending order depending on the nature of the criterion or item. These items are ones that are traditionally considered and are assumed to be valid indicators of the concept rural-urban. The average of these ranks was then used as a designation of each county's rural-urban index ranking with higher values denoting more urban counties.

Subsequently however, and based on a visual comparison, it was found that the constructed rural-urban index with its ranking of the 99 counties corresponded closely with the United States Bureau of Census designation of the percentage of each county's population classified as urban. That is, counties ranking high on the constructed rural-urban index were also found to have a high percentage of their population designated as urban by the Census Bureau. Conversely, counties ranking low on the rural-urban index and thus more rural in composition and character were found to have a low percentage of their population designated as urban by the Census Bureau. The Census Bureau designation of rural and urban is arrived at in the following manner:

> The urban population comprises all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas. More specifically, the urban population consists of all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, villages, boroughs (except Alaska), and towns (except in the New England states, New York and Wisconsin), but excluding those persons living in the rural portions of extended cities; (b) unincorporated places of 2,500 inhabitants or more; and (c) other territory, incorporated or unincorporated included in urbanized areas. The population not classified as urban constitutes the rural population (U. S. Bureau of Census: 1972; pp. App. 1-2).

In order to determine the relative amount of association between the five aforementioned criteria and the census designation of the percentage of each county's population classified as urban, a Spearman rho was undertaken. Prior to doing so, however, five additional indices in addition to the five variable index were computed. These latter indices were based on all possible combinations of five variables taken four at a time. The results of the Spearman rho are contained in Table IV on the following page.

Table IV. Spearman's rho Between Percentage of County Population Classified as Urban by the Census Bureau and Each of the Six Indices of Rural-Urbanism

	Index 1	Index 2	Index 3	Index 4	Index 5	Index 6
% Population Urban	r = .7392 N = 99 S = .001	r = .7050 N = 99 S = .001	r = .7055 N = 99 S = .001	r = .7513 N = 99 S = .001	r = .7050 N = 99 S = .001	r = .7544 N = 99 S = .001

Where:

% Population Urban - % of population classified as urban by the Census Bureau

Index 1 - population size of the county
- population density of the county
- % of county land under agriculture use
- total value of retail sales in county
- establishments in county employing 20 or more persons

Index 2 - population size of the county
- population density of the county
- % of county land under agriculture use
- total value of retail sales in county

Index 3 - population size of the county
- population density of the county
- % of county land under agriculture use
- establishments in county employing 20 or more persons

Index 4 - population size of the county
- population density of the county
- total value of retail sales in county
- establishments in county employing 20 or more persons

Index 5 - population size of the county
- % of county land under agriculture use
- total value of retail sales in county
- establishments in county employing 20 or more persons

Index 6 - population density of the county
- % of county land under agriculture use
- total value of retail sales in county
- establishments in county employing 20 or more persons

As a consequence of the high association between the Bureau of Census designation of the percentage of each county's population classified as urban with each of the six indices, it was decided to employ the Census Bureau measure as a measure of the degree of rural-urban composition among the 99 counties. In addition to being highly correlated with Index 1--the original measure of the rural-urban dimension--the Census Bureau measure represents a relatively simple variable which is conceptually easily understood. This is not the case with Index 1 which is based on the additive properties of the five variables. Moreover, it is uncertain whether the five variable should be of equal weight in forming the Index.

A third reason for employing the Census Bureau measure as an indicator of the rural-urban dimension lies in its general acceptance as the official measure for distinguishing between rural and urban areas. As a result its credulity is enhanced and use probably more acceptable than other definitions and measures.

In using the Census Bureau measure as the measure of rural-urbanism in this study, a county with a population designated as 70 percent urban by the Census Bureau would be more urban in composition and character than a county with 30 percent of its population designated as urban. Rural counties then, according to the initial definition and measure, are now counties which have a lower percentage of their population designated as urban. The range between the least urbanized county or conversely the most rural and the most urban is 93 percent with several of the counties having populations classified as zero percent urban and one county with 93 percent of its population classified as urban.

One additional change affecting the classification of one county was made based on the Census Bureau definition of a Standard Metropolitan Statistical Area (SMSA). Warren county which has 40 percent of its population designated as urban was recoded so that the percentage of its population designated as urban would resemble that of adjacent Polk county, the most urban county in the state.

The second factor contains variables which are extra-legal in nature. These variables are similar to those presented in the previous chapter. However, two of those variables--race of victim and whether counsel was retained or appointed--were not included when the data was initially collected and are thus not available for inclusion in this study. On the other hand, several other variables, some of them similar to those extra-legal variables presented in Table II, were included in the original data set and are included in the data set of this study. These variables along with race, sex, age, and occupation are included in Table V.

The third factor contains variables which are legal in nature. Included are two of the four specific legal variables presented in the previous chapter. They are type of offense and the number of prior arrests. Except for institutionalized offenders who account for slightly over eight percent of the present sample the legal variable number of offenses the offender is charged with committing is not included in the present data set as it was not available when the original data set was collected. Also unavailable was the fourth legal variable, circumstances surrounding the present offense. However, several other legal variables similar to a number of those contained in

Table V. Factors, Variables and Values Forming the Data Base of the Study

Factor	Variable	Value
A. Residential	percentage of population designated as urban in each of the 99 counties	percentage equals value
B. Legal	type of offense	1) violent; 2) non-violent
	number of prior arrests	number equals value
	number of juvenile commitments	number equals value
	number of prior adult convictions	number equals value
C. Extra-legal	age	number equals value
	sex	1) male; 2) female
	race	1) white; 2) non-white
	number of legal dependents	number equals value
	alcohol or drug use	1) yes; 2) no
	occupational status	1) white collar; 2) blue collar
	years of formal school	number equals value
D. Criterion	type of sentence imposed by the court	1) probation; 2) institution-residential
	length of sentence imposed by court	length equals value in months

Table II, were available for inclusion in the original data set and are included in the data set used in this study. These variables are contained in Table V.

The fourth and last factor included in the study deals with the disposition imposed by the court on the offender and represents the dependent criterion of interest in the study. Based on previous research findings by Pope (1976), that disparity in the type of sentence imposed may exist but that this may be ameliorated by the length of sentence imposed by the court, it was decided to retain both dependent outcomes and employ them as separate items in the analysis. Thus, the type of sentence as well as the length of sentence represent the dependent variables of interest in the study.

Analytical Models

Analysis of the data is undertaken in two parts and employs two different types of research designs. The first part utilizes a descriptive research designs and the purpose here is essentially one of describing the variables contained in the data set. This amounts to a discussion of the frequency distributions of the variables as well as the relationship among the value categories associated with each of the variables.

The second part of the analysis focuses on investigating relationships among the variables and as such the design employed can be characterized as analytical. Two investigative techniques, tabular analysis and multivariate analysis, both of which are particularly well-suited for this type of design, are utilized in this part of the analysis.

The first technique, tabular analysis, will be employed to determine whether the rural-urban variable is associated with the discrete dependent variable type of sentence. Following completion of the tabular analysis the rural-urban variable along with the legal and extra-legal variables will be incorporated into a multivariate design in order to determine the relative importance of the rural-urban variable vis-a-vis the legal and extra-legal variables, with respect to type of sentence. Due to the discrete nature of the dependent variable, discriminant function analysis will be the multivariate technique employed. One of the capabilities of this technique is its ability to distinguish among independent variables those which differentiate more precisely between two or more groups. In this study two of the groups include persons sentenced to probation versus those sentenced to prison. Discriminant function analysis will help in determining those variables which best discriminate among these two groups. Ideally, the rural-urban variable would be of relatively high importance in discriminating among those receiving probation as contrasted to prison sentences.

With respect to the second dependent variable, length of sentence, the format of the analysis will be relatively similar to that discussed above. However, no tabular analysis will be undertaken since the dependent variable length of sentence is continuous and the multivariate technique to be employed, namely, multiple regression analysis, is capable of providing information comparable to that generated from tabular analysis. Basically this multivariate technique performs the same operation as discriminant function analysis which is to analyze the relationship between a criterion or dependent variable which is

continuous as opposed to discrete, and a set of independent or explanatory variables. It also has the ability to generate linear prediction equations and to control for other confounding variables in order to evaluate the contribution of a specific variable or set of variables. Moreover, it allows for the simultaneous consideration of many variables with the effects of extraneous variables partialled out.

Data analysis was undertaken at the Michigan State University Computer Center. The statistical package for Social Science (SPSS) is the software program employed for the analysis (Nie et al.; 1976).

CHAPTER V

RESULTS

Prior to presenting the results of the study a brief discussion regarding several alterations made to the data set and a number of the variables will be presented.

Approximately three quarters of the variables had between one and two percent of their values coded as either unknown or missing. Since the multivariate models employed to analyze the data required that such cases not be considered if the analytical effectiveness of the models was to be maximized, it was decided to eliminate those cases from the sample. This resulted in approximately 50 of the 2,124 cases being dropped.

In another move to further refine the sample, 350 cases involving conviction of a motor vehicle offense were eliminated. In doing so it was felt that such offenses as DMVWVI and "joyriding" which fall under the motor vehicle category were not characteristic of the types of offenses in which sentencing disparity would exist. In fact, of the 280 offenders convicted of DMVWVI only one received a prison sentence.

For the seven offenders in the sample given an indefinite institutional length of sentence, these values were recoded to the mean number of months received by all offenders so sentenced. For example, an offender convicted of 2nd degree murder and given an indefinite sentence

would have the indefinite sentence recoded to the mean length of sentence value of all offenders sentenced for the offense of 2nd degree murder. Since the actual length of the sentence to be served was not known in terms of number of months, it was felt that the best estimate for the actual number of months sentenced would be the mean number of months received by all offenders sentenced for exactly similar offenses.

In an attempt to further refine the sample, four offenders sentenced for the offense 1st degree murder were dropped from the sample, since such offenders virtually always receive life sentences and thus provide minimal variation for purposes of analysis.

The last change made to the data set was to eliminate from the primary analysis those 53 offenders sentences to residential correctional facilities since the option for this type of sentence was limited to only one of the 99 counties. Utilizing these cases in the analysis would have been improper since there was no valid comparison group for the remaining counties. However, these residential cases are retained as part of the total study and an analysis of these 53 cases will be undertaken to determine whether they exhibit a like or different set of characteristics as compared to offenders sentences to either institutions or probation.

By way of summarizing, 2,126 cases were originally considered as constituting the sample. Four hundred and eleven cases were totally eliminated from the sample for several reasons leaving 1,715 cases. In addition, 53 residential dispositions were eliminated from the major portion of the analysis but are retained for later study. This left 1,662 cases for the major portion of the study.

Descriptive Findings

This part of the study is meant to provide a general summary and overview of the data set and to accentuate those variables which are of critical importance to the study. The format for presenting the descriptive findings is exactly similar to the arrangement of the factors and their respective variables in Table V.

For this part of the presentation, the continuous variables contained in the data set have been categorized in order to provide a tabular presentation. However, in the multivariate analysis portion they will be examined as continuous variable.

Rural-Urban Variable

Table VI contains the distribution of the 1,662 cases for the rural-urban variable--court location. As can be seen from the table

Table VI. Absolute and Relative Frequencies of the Rural-Urban Variable for the 1,662 Primary Cases

Variable	Values	Absolute Frequency	Relative Frequency (percent)
Rural-Urban	0 to 33 percent (rural counties)	234	14.1
	34 to 67 percent (semi-rural counties)	437	26.3
	67 to 100 percent (urban counties)	991	59.6

the majority of the offenders, nearly 60 percent, were sentenced from courts in counties where 67 percent or more of the counties population was considered as being urban in composition. Conversely, less than

15 percent of the cases were sentenced from counties considered as rural in composition. This is relatively consistent with Iowa's general population distribution where the majority of the population is concentrated in urban areas and the minority in rural areas.

Legal Variables

The four legal variables employed in the study, along with their associated absolute and relative frequencies, are contained in Table VII.

Breaking and Entering (B & E) is the most prevalent offense for which offenders are sentenced. It accounts for approximately 21 percent of the total number of cases. Following B & E the most prevalent offenses for which offenders are sentenced is larceny over $20.00. It accounts for 8.4 percent of the convictions.

Table VII also contains the sub-totals for the two sub-categories labelled violent and non-violent offenses. Offenses categorized as violent or crimes against persons account for approximately 15 percent of the total number of cases while offenses labelled non-violent account for the remaining 85 percent.

Within the violent offense category two offenses, namely, those involving assaults and those involving robbery account for approximately 35 percent of the total number of cases. For the remaining violent offenses the frequency of occurrence is relatively similar.

Turning to the other sub-category labelled non-violent offenses, five offenses account for approximately 50 percent of the cases. The largest offense category B & E accounts for approximately 25 percent of the cases while the offenses labelled false drawing and uttering of

Table VII. Absolute and Relative Frequencies of the Legal Variables for the 1,662 Cases

Variable	Values	Absolute Frequency	Relative Frequency (percent)
Type of Offense	Assault with intent to inflict great bodily harm	53	3.2
	Assault with intent to murder	3	0.2
	Assault with intent to commit other felonies	23	1.4
	Malicious threats	1	0.1
	Manslaughter	15	0.9
	Murder--2nd degree	5	0.3
	Robbery with aggravation	27	1.6
	Robbery without aggravation	50	3.0
	Other non-sex felonies against persons	5	0.3
	Assault with intent to rape	2	0.1
	Rape	13	0.8
	Other sex related felonies	5	0.3
	Incest	2	0.1
	Burglary with aggravation	7	0.4
	Child stealing	2	0.1
	Lascivious acts with a child	13	0.8
	Statutory Rape	1	0.1
Sub Total	for Violent Offenses	227	13.7
	Arson	12	0.7
	Breaking and Entering	344	20.7
	Burglary without aggravation	7	0.4
	Embezzlement of secured interest over $20.00	3	0.2
	Embezzlement, all other offenses	23	1.4
	False drawing and uttering of cheques over $20.00	107	6.4
	False pretenses	29	1.7

continued

Table VII--continued

Variable	Values	Absolute Frequency	Relative Frequency (percent)
Type of Offense	Forgery	94	5.7
	Larceny over $20.00	141	8.5
	Larceny in daytime over $20.00	32	1.9
	Larceny in nighttime over $20.00	100	6.0
	Larceny of a motor vehicle	22	1.3
	Larceny from a person	12	0.7
	Other larceny felonies	11	0.7
	Malicious damage to a building	29	1.7
	Malicious mischief	15	0.9
	Receiving and concealing stolen property over $20.00	112	6.7
	Shoplifting over $20.00	33	2.0
	Uttering a forged instrument	47	2.8
	Other felonies against property	25	1.5
	Carrying concealed weapon	69	4.2
	Delivery or possession with intent to deliver drugs	78	4.7
	Drugs, all other felonies	12	0.7
	Going armed with intent	6	0.4
	Riotous conduct	1	0.1
	Other felonies against public health, peace and safety	2	0.1
	Escape	3	0.2
	Interfering with the administration of justice	3	0.2
	Perjury	9	0.5
	Other felonies against public justice and authority	8	0.5
	Keeping a house of ill fame	1	0.1
	Solicitation for prostitution	11	0.7

continued

Table VII--continued

Variable	Values	Absolute Frequency	Relative Frequency (percent)
Type of Offense	Sodomy	2	0.1
	Conspiracy	17	1.0
	Counterfeiting	1	0.1
	Other miscellaneous felonies	1	0.1
Sub Total	for Non-violent Offenses	1,435	86.4
Number of Prior Juvenile Commitments	None	1,285	77.3
	1 or 2	282	17.0
	3 to 5	75	4.5
	More than 5	20	1.1
Number of Prior Adult Arrests	None	485	29.2
	1 or 2	418	25.2
	3 to 5	352	21.2
	More than 5	407	24.4
Number of Prior Adult Convictions	None	845	50.8
	1 or 2	451	27.2
	3 to 5	222	13.4
	More than 5	144	8.6

checks over $20.00, forgery, larceny over $20.00, and larceny in night-time over $20.00 account for the other 25 percent. Except for the offenses receiving and concealing stolen property over $20.00 which accounts for 7 percent of the total number of non-violent offenses no other offense category exceeds 5 percent.

The three remaining legal variables--number of prior juvenile commitments, number of prior adult arrests, and number of prior adult convictions contain a number of similarities and differences in their distributions. For all three variables, the value none or no prior criminal history is the category with the majority of cases. However, unlike the other two variables whose values are monotonic and markedly distributed, the variable number of prior adult arrests shows little variance among each of its four categories and its distribution is somewhat irregular.

Extra-legal Variables

The seven extra-legal variables, along with their associated absolute and relative frequencies, are contained in Table VIII, on the following page.

The sample is overwhelmingly male and white. Females account for only 14 percent of the sample, while the number of non-white offenders is only 267 or 16 percent. The majority of offenders, approximately 66 percent, are under the age of 24, and as might be expected, the majority, 61 percent, have no legal dependents. Fifty-six percent of

Table VIII. Absolute and Relative Frequencies of the Extra-legal Variable for the 1,662 Cases

Variable	Values	Absolute Frequency	Relative Frequency (percent)
Sex	Male	1,435	86.3
	Female	227	13.7
Race	White	1,395	83.9
	Non-white	267	16.1
Age	19 or younger	491	27.5
	20 to 24	617	37.1
	25 to 29	252	15.1
	30 to 39	182	11.0
	40 to 49	77	4.9
	50 or older	43	2.4
Number of legal dependents	None	1,010	60.8
	One	249	15.0
	Two	185	11.1
	Three	125	7.5
	Four or more	93	5.6
Formal education	8th grade or less	197	11.9
	Some high school	791	47.6
	High school graduate	527	31.7
	1 or 2 years of college	110	6.6
	3 or more years of college	37	2.3
Occupational category	Unskilled	932	56.1
	Skilled (trades) or semi-skilled	659	39.7
	Sales or clerk	38	2.3
	Professional, managerial or proprietor	33	2.0
Alcohol-drugs involved	Neither	1,025	61.7
	Alcohol	422	25.4
	Drugs	215	12.9

the offenders are occupationally categorized as unskilled while 40 percent are either skilled or semi-skilled. This is reflected in the formal educational attainment level. Over half, 60 percent, have less than a high school education. Alcohol and/or drugs were involved directly or indirectly in 38 percent of the offense for which offenders were sentenced.

Sentencing Variables

As expected the overwhelming majority of the offenders received a probation sentence. Ninety-one percent received such a sentence while the remaining nine percent received an institutional sentence. Although not included in the table, 53 offenders were sentenced to residential or community based correctional facilities. These cases were discussed previously and are mentioned here only as a reminder of their eventual inclusion in the study.

Although the continuous dependent variable--length of sentence--has been categorized to accommodate its inclusion in Table IX, it will be considered as a continuous variable in the analysis portion of the study. However, as a categorical variable, it does provide valuable summary information.

Table IX indicates that the most common length of sentence imposed is a sentence of between one and two years. Over half, 55 percent, of the offenders received a sentence of this length. Next to a sentence of this length the most common sentence was one of between three and five years. Twenty-four percent of the sample received such a sentence.

Table IX. Absolute and Relative Frequencies of the Sentencing Variables for the 1,662 Cases

Variable	Values	Absolute Frequency	Relative Frequency (percent)
Type of sentence	Institutionalization	144	8.7
	Probation	1,518	91.3
Length of sentence	Less than 12 months	111	6.6
	12 to 24 months	916	54.9
	25 to 36 months	96	4.2
	37 to 60 months	398	23.9
	61 to 120 months	135	8.2
	More than 121 months	33	2.2

Summary

By way of summarizing the descriptive findings the following profile characterizing the 'typical' convicted Iowa felony offender can be constructed from the four tables just presented. The typical offender is a white, urban-residing male under the age of 24. He is probably single, a high school drop-out, and if employed holds an unskilled job. While not heavily involved in either alcohol or drugs he was first arrested sometime in his middle teens and is now serving a two-year probation sentence for B & E.

Analytical Findings

Due to the two dependent variables being used in the study the presentation of the analytical findings will be done in two sections. First, findings regarding the dependent variable type of sentence is

presented. Following this the results for the second dependent variable, length of sentence, are presented.

Type of Sentence

Table X contains the bivariate or zero order relationship between the dependent variable type of sentence and the rural-urban variable. Since type of sentence is a nominal variable and tabular analysis was selected as the initial method of analysis the rural-urban variable was collapsed into the three categories contained in Table X. Offenders sentenced from counties having less than 33 percent of their population classified as urban were collapsed to form one category labeled rural. Likewise, counties with between 34 and 67 percent of their population classified as urban were collapsed to form the semi-rural category while the remaining counties, i.e., those greater than 68 percent, were collapsed and labeled urban.

Based on the results from Table X it appears that the type of sentence an offender receives is not directly influenced by the rural-urban composition of the county in which the sentencing takes place. The largest difference between the two groups on any dimension of the rural-urban variable is one percent. Both measures of association are low and statistically non-significant at the .05 level.

In order to determine if the lack of association between the rural-urban variable and type of sentence might be due to a third variable or variables acting as a suppressor and thereby concealing a true relationship, several of the extra-legal variables were entered into the analysis. This approach was followed since previous research

Table X. Type of Sentence by Rural-Urban Variable

Type of Sentence	Rural-Urban					
	Rural		Semi-Rural		Urban	
	%	N	%	N	%	N
Prison	8.1	(19)	9.4	(41)	8.5	(84)
Probation	91.9	(215)	90.6	(396)	91.5	(907)
Chi square = 0.4165			Kendall's Tau C = .0026			
Significance = .8120			Significance = .4257			

(Pope, 1976; Chiricos and Waldo, 1975) had reported an association between the rural-urban variable and type of sentence under certain conditions.

Seven first order tables controlling for the extra-legal variables age, race, sex, occupation, education, number of legal dependents, and drug and/or alcohol involvement, were constructed. For two of the variables--age and race--their introduction into the analysis led to both a substantial inter and intra group or category change in the initial zero order relationship between the rural-urban variable and type of sentence. For one of the variables, occupation, its introduction into the analysis led to a substantial inter group change, and for two other variables, education and number of legal dependents, their introduction into the analysis resulted in a substantial intra group change. The criterion for determining whether a change was substantial or not was a ten percentage point difference. That is, if a percentage

difference either within or between categories of the control variable was equal to or greater than ten percent then the relationship was regarded as substantial. If the difference was less than ten percent then the relationship was viewed as not substantial. This criterion is consistent with that employed in previous sentencing studies (e.g., Pope, 1976).

Regarding age, Table XI shows that older offenders were more likely to receive a prison sentence than younger offenders and this was more pronounced in rural and semi-rural than in urban counties. For offenders over 30 years of age, 22 percent of the rural and 18 percent of the semi-rural group received a prison sentence compared to only 12 percent of the urban group. For all offenders sentenced by rural and semi-rural courts five and six percent of the offenders under 20 and seven and ten percent of the offenders between 21 and 29 were institutionalized. However, for offenders aged 30 and older 22 percent of the rural and 18 percent of the semi-rural group were institutionalized.

In order to account for the inter group disparity in the proportion of older offenders institutionalized in rural and semi-rural, as compared to urban courts and the intra group disparity in the proportion of older as compared to younger offenders institutionalized in rural and semi-rural courts, legal variables were introduced into the analysis. The rationale for doing so was based on the assumption that older offenders sentenced by rural and semi-rural courts were either convicted of more serious criminal offenses or had a more serious criminal history than their urban counterparts, and similarly, that older as compared to

Table XI. Type of Sentence by Rural-Urban by Age

Type of Sentence	Rural-Urban: Rural %	Rural N	Semi-Rural %	Semi-Rural N	Urban %	Urban N
Under 20						
Prison	4.5	(5)	5.9	(12)	6.0	(22)
Probation	95.5	(107)	94.1	(190)	94.0	(342)
Chi square = 0.4131			Kendall's Tau C = -.0092			
Significance = .8134			Significance = .3114			
20-29						
Prison	7.4	(6)	10.1	(17)	9.0	(39)
Probation	92.6	(75)	89.9	(151)	91.0	(394)
Chi square = 0.4964			Kendall's Tau C = -.0010			
Significance = .7802			Significance = .4809			
Over 30						
Prison	21.9	(9)	17.9	(12)	11.9	(23)
Probation	78.1	(32)	82.1	(55)	88.1	(171)
Chi square = 2.7879			Kendall's Tau C = .0721			
Significance = .2452			Significance = .0516			

younger offenders sentenced by rural and semi-rural courts were likewise either convicted of more serious criminal offenses or had a more serious criminal history.

Regarding the inter group disparity neither of the two legal variables provides justification for the disproportionate percentage of institutional sentences given older offenders sentenced by rural and semi-rural as compared to urban courts. On the contrary, older offenders sentenced by urban courts were convicted of more serious offenses than their rural and semi-rural counterparts, given that offenses against persons or violent offenses are regarded as the most serious of all offenses committed. Table XII reveals that 24 percent of the offenders sentenced by urban courts were convicted of violent offenses, compared to only 15 and 11 percent for offenders sentenced by rural and semi-rural courts.

Table XII. Seriousness of Offense by Rural-Urban for Offenders Aged 30 and Older

Seriousness of Offense	Rural-Urban					
	Rural		Semi-Rural		Urban	
	%	N	%	N	%	N
Non-violent	85.4	(35)	89.4	(60)	76.3	(148)
Violent	14.6	(6)	10.5	(7)	23.7	(46)
Chi square = 6.2986			Kendall's Tau C = .1022			
Significance = .0429			Significance = .0113			

When previous criminal history as measured by the number of prior arrests is introduced into the analysis similar results occur. Contrary to expectations, Table XIII indicates that older offenders sentenced by urban courts have a greater number of prior arrests than older offenders sentenced by rural and semi-rural courts. While 66 and 54 percent of the offenders sentenced by rural and semi-rural courts had previously been arrested three or more times, 73 percent of the offenders sentenced by urban courts had been so arrested.

Table XIII. Number of Prior Arrests by Rural-Urban for Offenders 30 and Older

Number of Prior Arrests	Rural-Urban					
	Rural		Semi-Rural		Urban	
	%	N	%	N	%	N
Two or less	34.1	(14)	46.3	(31)	26.8	(32)
Three or more	65.9	(27)	53.7	(36)	73.2	(142)
Chi square = 8.7433			Kendall's Tau C = .1218			
Significance = .0126			Significance = .0104			

Turning to the intra group disparity in rural and semi-rural courts, legal justification was found to support the disproportionate percentage of older offenders sentenced to prison by rural courts but not by semi-rural courts. While Table XIV reveals no substantial difference in the percentage of older as compared to younger offenders convicted of violent crimes in rural courts, Table XV does contain a substantial difference

Table XIV. Seriousness of Offense by Age for Offenders Sentenced by Rural Courts

Seriousness of Offense	Age: 20 or Younger %	N	21-29 %	N	30 or Older %	N
Violent	8.9	(10)	13.6	(11)	14.6	(6)
Non-violent	91.1	(102)	86.4	(70)	85.4	(35)
Chi square = 1.4632			Kendall's Tau C = -.0525			
Significance = .4811			Significance = .1184			

in the percentage of older as compared to younger offenders with more serious criminal histories in these courts. For older offenders, sentenced by rural courts, 66 percent have previously been arrested three or more times. This compares to 48 and 49 percent for younger offenders and provides support for the disproportionate percentage of prison sentences given older as compared to younger offenders sentenced by rural courts.

Table XV. Number of Prior Arrests by Age for Offenders Sentenced by Rural Courts

Number of Prior Arrests	Age: 20 or Younger %	N	21-29 %	N	30 or Older %	N
Two or less	51.8	(58)	50.6	(41)	34.1	(14)
Three or more	48.2	(54)	49.4	(40)	65.9	(27)
Chi square = 4.0083			Kendall's Tau C = .1069			
Significance = .1348			Significance = .0619			

As mentioned above, neither of the two legal variables provide support for the disproportionate percentage of older as compared to younger offenders given prison sentences in semi-rural courts. In neither Table XVI nor Table XVII are the percentage differences within the ten percent criterion indicative of a substantial change.

Table XVI. Seriousness of Offense by Age for Offenders Sentenced by Semi-Rural Courts

Seriousness of Offense	Age: 20 or Younger %	N	21-29 %	N	30 or Older %	N
Violent	5.4	(11)	14.3	(24)	10.4	(7)
Non-violent	94.6	(191)	85.7	(144)	89.6	(60)
Chi square = 8.3146			Kendall's Tau C = -.0680			
Significance = .0156			Significance = .0115			

Table XVII. Number of Prior Arrests by Age for Offenders Sentenced by Semi-Rural Courts

Number of Prior Arrests	Age: 20 or Younger %	N	21-29 %	N	30 or Older %	N
Two or less	49.0	(99)	40.5	(68)	46.3	(31)
Three or more	51.0	(103)	59.5	(100)	53.7	(36)
Chi square = 2.7245			Kendall's Tau C = .0548			
Significance = .2560			Significance = .1390			

The second and only other of the seven extra-legal variables to substantially alter both the inter and intra group percentage in the original bivariate relationship between the rural-urban variable and type of sentence is race. Table XVIII reveals that non-white offenders were more likely to receive a prison sentence than were white offenders and this was more pronounced in rural and semi-rural than in urban courts. For non-white offenders 30 percent of those sentenced by rural and 17 percent of those sentenced by semi-rural courts received a prison sentence compared to 10 percent for those sentenced by urban courts. For all offenders sentenced by rural courts seven percent of the white but 30 percent of the non-white offenders received a prison sentence.

Table XVIII. Type of Sentence by Rural-Urban by Race

Type of Sentence	Rural-Urban: Rural %	Rural N	Semi-Rural %	Semi-Rural N	Urban %	Urban N
White						
Prison	7.1	(16)	9.0	(37)	7.9	(60)
Probation	92.9	(208)	91.0	(376)	92.1	(698)
Chi square = 0.7195			Kendall's Tau C = .0006			
Significance = .6978			Significance = .4852			
Non-white						
Prison	30.0	(3)	16.7	(4)	10.3	(24)
Probation	70.0	(7)	83.3	(20)	89.7	(209)
Chi square = 4.2828			Kendall's Tau C = .0475			
Significance = .1175			Significance = .0351			

As was previously done with age, legal variables were introduced into the analysis in order to account for the inter group disparity in the proportion of non-white offenders sentenced to prison in rural and semi-rural as compared to urban courts. Table XIX fails to support the legal rationale previously discussed for the disproportionate percentage of non-white rural and semi-rural offenders sentenced to prison. Non-white offenders sentenced by urban courts contrary to expectation commit a greater percentage of violent crimes than offenders sentenced by rural and semi-rural courts. In fact, not one of the non-white offenders sentenced by rural courts and only 8 percent of those sentenced by semi-rural courts were convicted of violent offenses. Of the offenders sentenced by urban courts on the other hand, 21 percent had been convicted of violent crimes.

Table XIX. Seriousness of Offense by Rural-Urban for Non-white Offenders

Seriousness of Offense	Rural-Urban: Rural %	Rural N	Semi-Rural %	Semi-Rural N	Urban %	Urban N
Non-violent	100	(10)	91.7	(22)	79.4	(185)
Violent	0	(0)	8.3	(2)	20.6	(48)

Chi square = 4.5453 Kendall's Tau C = -.0664
Significance = .1030 Significance = .0187

Similar results occur when previous criminal history is introduced into the analysis. Non-white offenders sentenced by urban courts rather

than their rural counterparts are the ones with more serious criminal histories. Table XX reveals that 66 percent of the offenders sentenced by urban courts as compared to 50 percent of those sentenced by rural courts have previously been arrested three or more times. Non-white offenders sentenced by semi-rural courts on the other hand do have more serious criminal histories than their urban counterparts. However, the magnitude of the difference is only one percent.

Table XX. Number of Prior Arrests by Rural-Urban for Non-white Offenders

Number of Prior Arrests	Rural-Urban					
	Rural		Semi-Rural		Urban	
	%	N	%	N	%	N
Two or less	50.0	(5)	33.3	(8)	34.3	(80)
Three or more	50.0	(5)	66.7	(16)	65.7	(153)
Chi square = 1.0627			Kendall's Tau C = .0196			
Significance = .5857			Significance = .3079			

Turning to the intra group disparity in rural courts, Table XXI provides no legal support for the disproportionate percentage of non-white offenders institutionalized. Contrary to expectations, white offenders are convicted of violent offense in substantially greater numbers than non-white offenders. Whereas, 12 percent of the white offenders are convicted of violent crimes none of the non-white offenders are so convicted.

Table XXI. Seriousness of Offense by Race for Offenders Sentenced by Rural Courts

Seriousness of Offense	Race			
	White		Non-white	
	%	N	%	N
Violent	12.1	(27)	0	0
Non-violent	87.9	(197)	100.0	(10)
Chi square = 0.4375		Kendall's Tau C = .0197		
Significance = .5083		Significance = .1221		

Nor does previous criminal history provide a legal basis for the disproportionate percentage of non-white offenders institutionalized by rural courts. Table XXII indicates that the percentage of white and non-white offenders with serious criminal histories is relatively the same. Fifty-two percent of the white offenders have previously been arrested three or more times while 50 percent of the non-white offenders had been so arrested.

As noted previously, introduction of one of the extra legal variables into the original bivariate analysis led to a substantial inter group change in the percentage of offenders receiving prison as opposed to probation sentences. Offenders with white collar occupations sentenced by rural courts received a disproportionate percentage of prison sentences compared to their semi-rural and urban counterparts. For white collar offenders sentenced by rural courts 17 percent received a prison sentence. This compares to five and two percent for offenders sentenced by semi-rural and urban courts. Table XXIII contains these results.

Table XXII. Number of Prior Arrests by Race for Offenders Sentenced by Rural Courts

Number of Arrests	Race			
	White		Non-white	
	%	N	%	N
Two or less	48.2	(108)	50.0	(5)
Three or more	51.8	(116)	50.0	(5)
Chi square = 0.0453		Kendall's Tau C = -.0029		
Significance = .8315		Significance = .4561		

Table XXIII. Type of Sentence by Rural-Urban by Occupation

Type of Sentence	Rural-Urban					
	Rural		Semi-Rural		Urban	
	%	N	%	N	%	N
			Blue Collar			
Prison	7.9	(18)	9.6	(40)	8.8	(83)
Probation	92.1	(210)	90.4	(377)	91.2	(863)
Chi square = 0.5486			Kendall's Tau C = .0004			
Significance = .7601			Significance = .4877			
			White Collar			
Prison	16.7	(1)	5.0	(1)	2.2	(1)
Probation	83.3	(5)	95.0	(19)	97.8	(44)
Chi square = 2.7708			Kendall's Tau C = .0619			
Significance = .2502			Significance = .0949			

Due to the small number of cases contained in the rural category for white collar offenders, it was decided to forego any further analysis since the existence of disparity depended on the one case. That is a change from prison to probation in the rural category would eliminate the apparent disparity between white collar offenders sentenced by rural courts and those sentenced by semi-rural and urban courts.

As mentioned previously, two of the extra-legal variables, when introduced into the analysis, led to a substantial intra group change in the percentage of offenders receiving prison as opposed to probation sentences. Table XXIV reveals that rural courts sentence a disproportionate percentage of offenders with three or more legal dependents to prison as compared to offenders with fewer than three legal dependents. For offenders with three or more dependents 17 percent are sentenced to prison. This compares to seven percent for offenders with two or fewer legal dependents.

Introduction of the two legal variables into the analysis failed to account for the disproportionate percentage of rural offenders with three or more legal dependents given prison sentences. Table XXV indicates that while offenders with more than three legal dependents commit a slightly higher percentage of violent offenses than rural offenders with two or fewer legal dependents the difference, 17 compared to 11 percent, is not substantial.

Similar results occur when the legal variables previous criminal history is introduced into the analysis, albeit in the opposite direction. That is, 46 percent of the offenders with three or more legal

Table XXIV. Type of Sentence by Rural-Urban by Number of Legal Dependents

Type of Sentence	Rural-Urban					
	Rural		Semi-Rural		Urban	
	%	N	%	N	%	N
Two or Fewer						
Prison	7.1	(15)	9.5	(36)	8.2	(70)
Probation	92.9	(195)	90.5	(343)	91.8	(785)
Chi square = 1.0779			Kendall's Tau C = .0009			
Significance = .5834			Significance = .4742			
Three or More						
Prison	16.7	(4)	8.6	(5)	10.3	(14)
Probation	83.3	(20)	91.4	(53)	89.7	(122)
Chi square = 1.1897			Kendall's Tau C = .0158			
Significance = .5517			Significance = .3510			

Table XXV. Seriousness of Offense by Number of Legal Dependents for Offenders Sentenced by Rural Courts

Seriousness of Offense	Number of Legal Dependents			
	Two or Less		Three or More	
	%	N	%	N
Violent	11.0	(23)	16.7	(4)
Non-violent	89.0	(187)	83.3	(20)
Chi square = 0.2429		Kentall's Tau C = -.0210		
Significance = .6221		Significance = .2038		

dependents have serious criminal histories; whereas, 52 percent of the offenders with two or fewer legal dependents have such histories. Table XXVI contains these results.

Table XXVI. Number of Prior Arrests by Number of Legal Dependents for Offenders Sentenced by Rural Courts

Number of Prior Arrests	Number of Legal Dependents: Two or Less %	Two or Less N	Three or More %	Three or More N
Two or less	47.6	(100)	54.2	(13)
Three or more	52.4	(110)	45.8	(11)

Chi square = 0.1541
Significance = .6947

Kendall's Tau C = -.0241
Significance = .2720

The last of the extra-legal variable to substantially alter the intra group percentage in the number of offenders receiving prison as opposed to probation sentences is education. Table XXVII indicates that both semi-rural and urban courts sentence a disproportionate percentage of offenders with less than a high school education to prison. Semi-rural courts sentence 22 percent of their less educated offenders to prison as compared to eight percent for offenders with some high school and six percent for offenders with high school or more. For urban courts the figures are 16 percent for offenders with less than a high school education, 10 percent for offenders with some high school, and five percent for offenders with high school or more.

Table XXVII. Type of Sentence by Rural-Urban by Education

Type of Sentence	Rural-Urban: Rural %	Rural N	Semi-Rural %	Semi-Rural N	Urban %	Urban N
Less Than High School						
Prison	14.8	(4)	22.4	(15)	15.5	(16)
Probation	85.2	(23)	77.6	(52)	84.5	(87)
Chi square = 1.4919			Kendall's Tau C = .0326			
Significance = .4743			Significance = .2836			
Some High School						
Prison	7.1	(7)	7.8	(17)	10.1	(48)
Probation	92.9	(92)	92.2	(200)	89.9	(427)
Chi square = 1.4932			Kendall's Tau C = -.0251			
Significance = .4740			Significance = .1114			
High School or More						
Prison	7.4	(8)	5.9	(9)	4.8	(20)
Probation	92.6	(100)	94.1	(144)	95.2	(393)
Chi square = 1.1443			Kendall's Tau C = .0181			
Significance = .5643			Significance = .1523			

Introduction of the two legal variables into the analysis provides strong support for the disproportionate percentage of less educated urban offenders sentenced to prison. Both Table XXVIII and Table XXIX reveal that less educated offenders sentenced by urban courts commit substantially more violent crimes and have more serious criminal histories than offenders with higher levels of education. For offenders with less than high school 29 percent committed violent offences as compared to 15 and 14 percent for the other two educational categories.

Table XXVIII. Seriousness of Offense by Education for Offenders Sentenced by Urban Courts

Seriousness of Offense	Education: Less Than High School %	N	Some High School %	N	High School or More %	N
Violent	29.1	(30)	14.9	(71)	13.8	(57)
Non-violent	70.9	(73)	85.1	(404)	86.2	(356)

Chi square = 15.1222
Significance = .0005

Kendall's Tau C = .0640
Significance = .0042

Similarly, and as shown in Table XXIX, less educated urban offenders also have more serious criminal histories than their better educated counterparts. Seventy-six percent of the offenders with less than a high school education have been previously arrested three or more times. This compares to 65 and 55 percent for urban offenders with either some high school education or with a high school education or more.

Table XXIX. Number of Prior Arrests by Education for Offenders Sentenced by Urban Courts

Number of Prior Arrests	Education: Less Than High School %	N	Some High School %	N	High School or More %	N
Two or less	24.3	(25)	34.9	(166)	44.6	(184)
Three or more	75.7	(78)	65.1	(309)	55.4	(229)

Chi square = 17.6616 Kendall's Tau C = -.1332
Significance = .0001 Significance = .0001

For semi-rural courts introduction of the legal variables provided support for the disproportionate percentage of less educated offenders sentenced to prison, but the support was not as strong as for urban courts since only one of the legal variables was substantially associated with education. Table XXX shows no substantial relationship between seriousness of the offense and education. Thirteen percent of the less educated semi-rural offenders committed violent crimes compared to ten and nine percent for better educated offenders.

Table XXXI does provide legal justification for the disproportionate percentage of less educated offenders sentenced to prison by semi-rural courts. Seventy percent of the offenders with less than a high school education have serious criminal histories. For offenders with some high school 57 percent have serious criminal histories, and for offenders with high school or more 45 percent have such histories.

Table XXX. Seriousness of Offense by Education for Offenders Sentenced by Semi-Rural Courts

Seriousness of Offense	Education: Less Than High School %	N	Some High School %	N	High School or More %	N
Violent	13.4	(9)	9.7	(21)	7.8	(12)
Non-violent	86.6	(58)	90.3	(196)	92.2	(141)

Chi square = 1.6781 Kendall's Tau C = .0362

Significance = .4321 Significance = .1116

Table XXXI. Number of Prior Arrests by Education for Offenders Sentenced by Semi-Rural Courts

Number of Prior Arrests	Education: Less Than High School %	N	Some High School %	N	High School or More %	N
Two or less	29.9	(20)	43.3	(94)	54.9	(84)
Three or more	70.1	(47)	56.7	(123)	45.1	(69)

Chi square = 12.4900 Kendall's Tau C = -.1754

Significance = .0019 Significance = .0002

Based on these tabular findings a number of tentative conclusions can be made with respect to the rural-urban variable and the type of sentence received by convicted offenders. Regarding inter group comparisons both rural and semi-rural, but especially the former, as compared to urban courts, sentenced a disproportionate number of older offenders to prison and as well a disproportionate number of non-white offenders. In neither case, however, was legal justification found to support the imbalance. That is, both older and non-white offenders sentenced by rural and semi-rural courts were neither convicted of a disproportionate number of violent offenses, crimes usually associated with a prison sentence, nor were their criminal histories as measured by the number of prior arrests of such gravity as to warrant the disproportionate number given prison sentences vis-a-vis their urban counterparts. In fact on both accounts, that is, more serious crimes defined as violent crimes or crimes against persons and seriousness of previous criminal history, the proportion of older and non-white offenders with these characteristics was consistently greater in urban than in either rural or semi-rural courts.

Turning to intra group comparisons, rural courts sentenced a substantially greater number of non-white as compared to white offenders, and offenders with three or more legal dependents as compared to offenders with two or fewer, to prison. In neither case was legal justification uncovered to support the more severe prison sentence. Both non-white offenders and those with three or more legal dependents neither committed a disproportionate number of violent crimes nor were their

criminal histories disproportionately more serious than their respective counterparts. Similarly, no legal support was found for the disproportionate number of older as compared to younger offenders sentenced to prison in semi-rural courts.

These findings provide a basis for advancing a number of hypotheses regarding the rural-urban variable and type of sentence. Of interest here is the hypothesis regarding the role of legal and extra-legal variables to the sentencing decision itself. Based on the results from the tabular analysis it appears that the importance of legal and extra-legal variables in determining the type of sentence received by offenders varies among rural, semi-rural and urban courts. In order to test this hypothesis, the three sets of variables (i.e., legal, extra-legal and dependent or outcome variable) were examined under a multivariate context in each of the three court settings. Since the dependent variable type of sentence is measured at a nominal level, discriminant function analysis was selected as the multivariate method of analysis. Prior to presenting the results from the analysis, a description of several of the major characteristics and analytical properties of the discriminant model are briefly examined.

At a general level discriminant function analysis is similar to multiple regression in that it can be used in two major ways: for classification and diagnosis and to study the relations among variables in different populations and groups. The discriminant function per se is a regression equation which is based on the dependent variable representing group membership. When the dependent variable has only two values--as is the case here with type of sentence--the discriminant function analysis

amounts to a multiple regression analysis with the dependent variable taking the values of 1 and 0 (Kerlinger and Pedhazur: 1973; p. 337). The independent variables in conjunction with the dependent variable are then used to solve the regression equation. Based on the resulting equation known as the discriminant function cases from the sample or population under study are sorted and classified as belonging to or having characteristics which would make them more likely to belong to one of the two values of the dependent variable, i.e., groups. In addition to discriminating to which group cases probably belong, the model, much like multiple regression analysis, is also capable of explaining the relative importance or weight of the independent variable in discriminating between the two groups or values of the dependent variable. These weights or discriminate function coefficients are the counterparts of the beta coefficients of multiple regression analysis.

Like multiple regression, there exist a number of methods for selecting the manner in which the independent variables are entered into the equation to determine the discriminant function. In the present study the direct method was selected as the method for entering the independent variables since there was no preconceived basis for believing that any one variable would be a better predictor of group membership than any other variable. Thus, the direct method assumes equality among the independent variables and the variables compete for entry into the equation. In addition, the direct method assumes that the independent variables are orthogonal, i.e., they are not highly correlated with one

another. A correlation matrix based on Pearson's r revealed low correlations (less than + or -.20) among the independent variables except for the following five associations; number of prior arrests and number of juvenile commitments, number of prior arrests and number of prior adult convictions, number of prior adult convictions and age, education and occupation, and number of legal dependents and age. The results are contained in Table XXXII, on the following page.

For the three courts--rural, semi-rural, and urban--93, 91 and 90 percent of the cases were correctly classified. The chi square measure of statistical association was significant beyond the .0001 level. For the remaining cases, not successfully classified, this meant that these cases, which in actuality were either institution or probation cases to begin with, were incorrectly classified as belonging to the other group (i.e., probation or institution). Nevertheless, the 90 percent plus rate of classification success indicates a high degree of congruence between the model and the actual distribution of cases.

In addition to classifying cases the discriminant model, as noted previously, also provides measures of statistical association as well as the relative importance of the independent variables in classifying cases. Table XXXIII contains the standardized discriminate function coefficients and several statistics associated with the discriminant function. The upper portion of the table contains the independent legal and extra-legal variables and their associated discriminant coefficients for the three types of courts. Of major interest is the weight or relative importance of the coefficients both within and between the three court settings.

Table XXXII. Product Moment Correlational Matrix of the Four Legal and Seven Extra-Legal Variables

	Type of Offense	Number Prior Commit-ments	Number Prior Arrests	Number Prior Convic-tions	Sex	Race	Age	Occu-pa-tion	Edu-ca-tion	Alcohol /Drug Use
Type of Offense (Violent or Non-violent)										
Number Previous Commit-ments (Juvenile	-.0472									
Number Prior Arrests (Adult)	-.0012	.3292								
Number Prior Convictions (Adult)	-.0271	.1070	.6802							
Sex (male or female)	.0812	-.0797	.1836	.1276						
Race (white or non-white)	-.0646	.0596	.0886	.0650	.0407					
Age (number of years)	-.1005	-.1164	.1626	.3482	.0387	.0651				
Occupation (white collar or blue collar)	-.0026	-.0646	-.0985	-.0659	.0719	-.0195	.1460			
Education (formal grade level)	.0712	-.1122	-.1911	-.0881	.0468	-.0203	-.0470	-.2242		
Alcohol/Drug Use (yes or no)	.1081	-.0123	.1598	.1312	.1622	-.0954	.0086	-.0258	-.0040	
Number Legal Dependents	-.0300	-.0412	.0811	.1637	.0847	.0533	.3984	.0826	-.0844	-.0456

Table XXXIII. Simple Discriminant Function Analysis with Type of Sentence as Dependent Variable and Four Legal and Seven Extra-Legal Independent Variables for Three Types of Court Settings

Coefficients	Rural	Semi-Rural	Urban
Type of offense	.5007	.4807	.8803
Prior arrests	-.0103	-.1892	-.3777
Prior convictions	-.0714	-.2241	-.4124
Juvenile commitments	.1282	.0886	.2698
Sex	.3687	.1363	-.1023
Race	-.5755	-.2243	-.0218
Age	-.2015	-.6542	-.1317
Occupation	.0050	.0010	.1222
Education	.1237	.5022	.1865
Number of dependents	-.4748	.3440	.0240
Alcohol or drug involvement	.1410	-.0465	-.0168
Statistics			
Canonical correlation	-.3085	.2975	.3135
Wilks Lambda	.9048	.9115	.9017
Chi square	22.7004	39.8440	101.7821
Significance	.0120	.0000	.0000
N =	234	437	991

Regarding the inter group comparisons, in urban as compared to semi-rural and rural courts, legal variables are of greater importance in explaining the type of sentence offenders receive. In urban courts the coefficients associated with each of the four legal variables, type of offense, prior arrests, prior convictions and juvenile commitments, are considerably larger than the corresponding coefficients for rural and semi-rural courts. For example, the coefficient value associated with type of offense--overall the largest of the four coefficients--is .88 for urban courts but .50 and .48 for rural and semi-rural courts. This suggests that type of offense is almost twice as important in explaining type of sentence in urban courts as it is in rural and semi-rural courts. Similar conclusions can be reached after examining the other three legal variables; that is, the importance attached to legal variables in explaining type of sentence is more significant in urban than in rural and semi-rural courts.

Separate but of equal importance is the nature or direction of the contribution of the coefficients associated with each of the four legal variables. For the three variables--type of offense, prior arrests, and prior convictions--the contribution of the coefficients are as expected: offenders with more prior arrests, more prior convictions and convicted of violent crimes are generally sentenced to prison while their counterparts are more likely to be sentenced to probation. In rural courts, however, the size of the two coefficients associated with the variables prior arrests and prior convictions are so small, -.01 and -.07 respectively, as to render the signs associated with the coefficients relatively meaningless.

For the fourth legal variable, prior juvenile commitments, the direction of the contribution is not as expected. Offenders having a greater number of juvenile commitments tend to receive probation, moreso in urban than in rural or semi-rural courts. In rural and semi-rural courts the coefficients are .12 and .09, in urban courts .26. One explanation for the larger coefficient associated with the juvenile commitment variable for offenders sentenced by urban courts is the possibility that urban offenders were disporportionately involved in a greater amount of criminal activity as juveniles than either rural or semi-rural offenders. An analysis of the data supports this view and it appears that as an adult, one's juvenile record is not accorded as great an importance in determining sentence as are the other legal considerations. That is, if juvenile commitments were of importance it could be expected that both the direction and size of the coefficient associated with this variable would be negative and large in at least one of the two other court settings. Since it is not, there exists little support for the argument that urban courts might be taking a more lenient approach towards offenders with more prior juvenile commitments than are rural and semi-rural courts. The situation is more one of all courts acting in a similar way with respect to prior juvenile commitments; that is, prior juvenile commitments minimally influences type of sentence.

Turning to the extra-legal variables, Table XXXIII indicates that these variables are of greater importance in rural and semi-rural courts than in urban courts in explaining type of sentence. In urban courts the coefficients associated with each of the seven extra-legal variables, are overall, much smaller than the corresponding coefficients for rural

and semi-rural courts. In urban courts only one of the coefficients is greater than .15, indicating little explanatory significance. However, in semi-rural and rural courts a majority of the coefficients are either .15 or larger. Moreover, the largest coefficient in urban courts is .19; whereas, both rural and semi-rural courts have coefficients larger than .50.

For three of the variables, sex, race, and number of legal dependents, a strong monotonic relationship exists indicating an increase in the explanatory power of these variables as one moves from urban to rural courts. For example, in urban courts the coefficient value of -.02 associated with race indicates that the variable contributes relatively little towards explaining the type of sentence an offender receives. In semi-rural courts the value increases to -.22 and for rural courts the value is -.58. The increases are indicative of the greater explanatory power of race in accounting for type of sentence. The negative signs attached to the coefficients indicate that the coefficients contribution to the discriminate function is negative; that is, in rural and semi-rural courts, but moreso in the former, prison sentences are associated with non-white offenders whereas probation sentences are associated with white offenders.

Turning to the intra group comparisons in both rural and semi-rural courts, legal variables are seemingly as important as extra-legal variables in explaining type of sentence and this is more evident for rural than for semi-rural courts. In rural courts for example the only legal variable with a coefficient greater than .15 is type of offense. However, four of the extra-legal variables have coefficients greater

than .15 and of these four, two, race and number of legal dependents, have coefficient values which are either slightly less or greater than the coefficient value of .50 associated with the legal variable type of offense.

In semi-rural courts three of the four legal variable coefficients have values greater than .15. However, two of the three values are only slightly larger than the .15 criterion considered indicative of meaningful explanatory utility. Moreover, a majority of the extra-legal coefficients have values greater than .15 and of these, two, age and education, have coefficient values which exceed the .48 value associated with the legal variable type of offense, the legal variable with the largest coefficient value.

In urban courts all four of the coefficients associated with the legal variables are considerably larger than .15, while only one of the extra-legal variable coefficients exceeds this value. Moreover, none of the extra-legal variable coefficients are larger than the legal variable coefficients and their values are generally much larger than the coefficient values associated with the extra-legal variables.

Table XXXIV presents a qualitative assessment of the inter and intra relationship for the coefficient values associated with the legal and extra-legal variable for the three court settings.

The results of this analysis coupled with those from the tabular analysis provide a basis for advancing a number of conclusions regarding the sentencing process in rural, semi-rural and urban courts. First, in urban courts legal variables are considerably more important

Table XXXIV. Summary Assessment of the Influence of Legal and Extra-Legal Variables for Three Types of Court Setting

Nature of Coefficients	Type of Court		
	Rural	Semi-Rural	Urban
Legal	low	moderate	high
Extra-legal	high	high	low

in explaining the sentencing process than in either semi-rural or rural courts. Moreover, the variance associated with this disparity is greater between urban and rural courts than between urban and semi-rural courts.

Second, in both rural and semi-rural courts extra-legal variables are of relatively similar importance in explaining the sentencing process. However, their importance is much greater than in urban courts where the contribution of extra-legal variables is miniscule to an explanation of the sentencing process.

These conclusions provide support for the hypothesis that the influence of legal and extra-legal variables in rural, semi-rural and urban courts differ. They also suggest that urban courts adhere to a more legalistic model of sentencing than do rural and semi-rural courts and that this difference is more pronounced between urban and rural courts than between urban and semi-rural courts.

Length of Sentence

As was the case with type of sentence the first step in understanding the analysis between length of sentence and the rural-urban variable was to examine the bivariate or zero order relationship. Since both variables are continuous measures, Pearson's r was employed to determine the level of association. This yielded a coefficient of $r = .03$ which at the .05 level is non-significant, indicating a lack of association between length of sentence and court setting.

In order to determine if the lack of association might be accounted for by the reasons discussed previously in reference to type of sentence, the seven extra-legal variables were entered into the analysis. Introduction of these variables, however, failed to significantly alter the original bivariate relationship. The largest first order partial which occurred was $r = .02$ and it occurred for four of the extra-legal variables. Similar results emerged with respect to intra group comparisons. That is, within each of the three courts, rural, suburban and urban, no significant association was uncovered between length of sentence and any of the seven-extra legal variables.

Although the analysis might have been concluded at this point, several considerations provided sufficient reason for not doing so. First, previous discussion and research (Wilkins et al., 1976; Pope, 1976) suggested that an inherent difference exists between prison and probation sentences notwithstanding the possibility that the length of sentence imposed on both groups might in a representative number of cases be quite similar. The fact that the offender placed on probation for one or more years is still free and able to engage in a lifestyle

that in many ways differs little from the one known before probation; whereas, the incarcerated offender is forced to relinquish his freedom and adopt a lifestyle which is in many respects diametrically opposed to the one previously known, suggests that any analysis of the length of sentence variable is meaningful only for individuals within the latter group. Second, and somewhat similar, is the value attached to violent crimes or offenses involving personal or potentially personal harm and non-violent crimes, i.e., offenses where direct personal harm or injury is not so much inherent. In a society such as ours with a cultural tradition which emphasizes personal worth and dignity, in essence, individuality, it could be expected that violent as opposed to non-violent offenses would evoke harsher formal sanctions and that this possibility should be taken into account as a consideration affecting length of sentence.

As a result of these considerations the three analyses, i.e., 1) the bivariate between length of sentence and the rural-urban variable, 2) the partial between length of sentence the rural-urban variable and the seven extra-legal variables, and 3) the bivariate between length of sentence and the seven extra-legal variable in rural, semi-rural and urban courts, were re-examined controlling for each of the following three conditions, respectively:

1) prison vs probation
2) violent vs non-violent
3) violent-prison vs violent-probation vs non-violent-prison vs non-violent-probation.

This resulted in over 230 coefficients being generated of which only twelve were statistically significant at the .05 level or lower. However, subsequent analysis of the 12 relationships controlling for relevant legal considerations indicated spuriousness in the initial relationships. That is longer sentences could be accounted for by either the type of offense offenders were convicted of, i.e., violent vs. non-violent and/or their prior arrest history, i.e., more prior arrests.

One final consideration which might account for the absence of a relationship remained; namely, that each offense or crime, of which there are 63, is of itself so different from another, given that each offense has associated with it certain characteristics such as the range of the sentence length, that this alone or in combination with some other consideration influences length of sentence. Testing this possibility required identifying either specific offense or offense types, e.g., robbery with aggravation, robbery without aggravation for which there existed a sufficient number of cases to insure that a reliable analysis could be undertaken. Eight distinct offense categories were arrived at using this method. They are: 1) assault which includes the specific offense assault with intent to inflict great bodily harm, assault with intent to murder, and assault with intent to commit other felonies; 2) robbery which is robbery with aggravation and robbery without aggravation; 3) drugs including delivery or possession with intent to deliver schedule I, II or III substances; 4) breaking and entering or B & E; 5) bad checks which is false pretenses and false drawing and uttering of checks over $20.00; 6) forgery including uttering

a forged instrument; 7) larceny which includes the specific offenses larceny over $20.00, larceny in the daytime over $20.00, and larceny in the nighttime over $20.00; and 8) receiving and concealing stolen property over $20.00.

For reasons discussed above, each of the eight offenses was paired with prison and probation sentences thereby yielding 18 conditions. Findings from the bivariate, partial and bivariate within individual court settings yielded non-significant results similar to those examined previously. However, for over half of the constructed relationships and most notably those involving length of sentence and the seven extra-legal variables within each of the three court settings, there was not a sufficient number of cases available to generate the coefficients.

Notwithstanding the lack of any discernible relationship between length of sentence, the rural-urban variable or the seven extra-legal variables a multiple regression analysis was undertaken. The rationale for doing so was based on the assumption that additional insight underlying the sentencing process, especially the relative importance of legal and extra-legal variables, both within and between the three court settings could be derived from such an analysis. For reasons discussed previously only those cases that resulted in a prison sentence were considered.

The specific multiple regression model utilized was simple multiple regression with length of sentence the dependent variable and the four legal and seven extra-legal variables constituting the group of independent variables. Table XXXV contains the findings from the multiple regression analysis for each of the three court settings.

Table XXXV. Simple Multiple Regression with Length of Sentence as Dependent Variable and Four Legal and Seven Extra-legal Independent Variables for Three Types of Court Settings

Coefficients	Rural	Semi-Rural	Urban
Type of offense	-.7697	.0263	-.5334
Prior arrests	.1161	.6387	.2136
Prior convictions	.1595	-.1862	.1500
Juvenile commitments	-.0514	-.1797	-.0946
Sex	*	.2108	.0511
Race	-.2974	-.0251	.0217
Age	.1209	-.2543	-.1815
Occupation	.1297	-.1080	-.0873
Education	-.0678	-.0173	-.1036
Number of dependents	.0008	-.0319	.0968
Alcohol or drug involvement	-.2108	.2483	.0831
Statistics			
Multiple R	.8306	.4803	.6016
R squared	.6898	.2307	.3619
Adjusted R squared	.3022	.0612	.2644
F Ratio	1.7798	.7905	3.7123
Significance	.213	.648	.000
N =	19	41	84

* No females sentenced to prison.

Of major interest is the lack of statistical significance associated with the two regression equations from rural and semi-rural courts. Given the relatively large number of independent variables however, plus the small number of cases in each sample the absence of statistical significance is not too surprising since the latter is a function of both of the former. As a result, discussion is limited to an analysis of the findings of the regression equation for offenders sentenced by urban courts.

Noteworthy, is the importance of legal vis-a-vis extra-legal variables in accounting for length of sentence within urban courts. For example, the coefficient associated with the legal variable type of sentence, overall the largest coefficient, is approximately three times greater than the largest extra-legal coefficient. Similarly, the coefficient associated with the legal variable number of prior adult arrests, although substantially smaller than the coefficient associated with type of offense is, nonetheless, larger than any of the coefficients associated with the extra-legal variables. Only the coefficient associated with the legal variable number of juvenile commitments shows any noticeable deviation from this trend and even here the deviation is not that substantial. For example, the extra-legal coefficient with the largest value is age, -.1815. This compares to a value of -.0946 for the coefficient associated with the variable number of juvenile commitments. For the fourth legal variable number of prior adult convictions, the coefficient value associated with it, .1500, while smaller than that for age, is relatively similar.

The results of the analysis provides a basis for advancing a number of conclusions regarding the importance of legal and extra-legal variables in urban courts with respect to the length of sentence imposed on convicted offenders. Of primary significance is the importance of legal variables, especially type of offense in explaining length of sentence and the relative absence of explanatory power associated with the extra-legal variables. Together these two findings lead to the conclusion that urban courts adhere to a relatively legalistic model regarding the length of sentence imposed on convicted offenders sentenced to prison.

While this concludes the major and principal portion of the results of the study, one additional topic alluded to earlier will be examined prior to concluding the study. That topic deals with offenders sentenced to residential correctional facilities.

Residential Offenders

Mentioned previously was the fact that one of the 99 Iowa counties, Polk, the location of the state's largest city, Des Moines, and the site of the state capital, has as an alternative to prison or probation, a sentence described as residential corrections. This type of sentence was afforded 54 offenders ineligible for probation and who otherwise would have probably been given prison sentences. The purpose in undertaking the analysis was to determine whether this group of convicted offenders was in any way different from offenders sentenced to either prison or probation. Assuming for the moment that they are different and therefore could be identified and categorized as a distinct group

of offenders, they would, on a unidimensional plane lie somewhere in between the other two groups since they are, theoretically, not quite like probationers since they were denied probation but yet were not regarded as serious enough to warrant prison sentences.

The method for determining the existence of any discernible difference was as follows. First, discriminant function analysis was used to calculate the unstandardized coefficients along with the constant for each of the four legal and seven extra-legal variables. These statistics were derived from the total sample of offenders excluding those from Polk county. These elevan variables, it was assumed, constituted the "best set" since they had been previously identified as those most often studied in sentencing research (see Chapter III). Next, a discriminant function score using as a basis for this score the variables, their coefficients, and the constant was computed for each offender excluding those offenders from Polk county sentenced to probation or prison, but including those Polk county offenders sentenced to residential corrections. From the discriminant scores for the three groups, i.e., non-Polk county probation and prison offenders and the Polk county offenders sentenced to residential corrections, the means and standard deviations were computed and formed the basis for comparing the groups. This procedure was then followed again for those offenders sentenced to prison or probation from Polk county alone. The same variables, their coefficients and the constant were then used to compute a discriminant score for Polk county offenders including those sentenced to residential corrections. From the scores the means and standard deviations for the three groups were computed. The rationale for using this approach rather

than computing one equation for the state as a whole was based on the assumption that Polk county as the site of the state's largest city and location of the state capital might contain a unique population of convicted offenders that differ from the rest of the state's population of convicted offenders. Doing so would control for this possibility of dissimilar populations.

Table XXXVI contains a breakdown of the discriminant function scores by each group of offenders for the two data bases. Of principal interest is a comparison of the residential to the probation and institutional groups across both data bases. Prior to doing so, however, it is worthwhile noting the similarities between the two samples or data bases. Looking at the totals, the leftmost column of Table XXXVI for both data bases it appears that the means and standard deviations are quite similar. This suggests that the two data bases are representative of a common population and that convicted offenders from Polk county are not unlike their counterparts from the rest of the state.

Turning to the comparison of the means and standard deviations among the three groups, the most conspicuous observation is the similarity between the residential and probation groups and the dissimilarity of these two groups to the group of institutional offenders. For the statewide data base, labeled 'other 98 counties' the means of the residential and probation groups is 1.1306 and 1.2588, respectively, while the standard deviation for the groups is .7274 and .9844, indicating slightly greater homogenity among the residential group of offenders. For the institutional group the mean and standard deviation are 2.0227 and .8547, respectively.

Table XXXVI. Breakdown of Discriminant Function Score for Polk County vis-a-vis Other 98 Counties by Type of Sentence

Data Base	Type of Sentence			
	Residential	Probation	Institutional	Totals
Polk County Only	M = 1.0274 SD = .7274 N = 54	M = 1.1859 SD = .9844 N = 193	M = 1.9845 SD = .8042 N = 31	M = 1.2574 SD = .9672 N = 278
Other 98 Counties	M = 1.1306 SD = .7381 N = 54	M = 1.2588 SD = .9328 N = 1325	M = 2.0227 SD = .8547 N = 113	M = 1.3121 SD = .9191 N = 1492

Based on these findings and contrary to hypothesized, Polk county offenders sentenced to residential corrections are relatively similar in their overall characteristics to probation offenders within Polk county and the state as a whole. While this conclusion in no way demonstrates that residential offenders might conceivably be placed on probation--at a minimum one would need risk data to effectively argue this issue--the similarity between the two groups is suggestive of that possibility.

CHAPTER VI

DISCUSSION

This study focuses on two principal topics; namely, criminal sentencing and the rural-urban composition of the sentencing court, and then examines a number of issues encompassed by each. In this, the concluding chapter, the findings from the study are re-examined in light of those issues, particularly as they relate to material covered in the initial three chapters of the study.

Because of the variety of issues to be discussed the chapter is divided into four sections. In the first section the findings of the study are compared and contrasted to those from previous investigations. This is followed by a discussion of the practical and theoretical implications resulting from the study. The third section addresses a number of limitations associated with the findings, especially the quality of the studies' data base. The study concludes with a number of suggestions regarding future research on the rural-urban variable and criminal sentencing.

Prior to addressing the above issues and in order to provide a directional perspective for what follows, a summary of the study to this point is included.

Summary

The purpose in undertaking this study was to determine whether disparities in the criminal sentences imposed on convicted Iowa offenders might be accounted for by the rural-urban location of the sentencing court. The basis for doing so stemmed from an earlier finding contained in a report commissioned by the 67th General Assembly of Iowa which stated that "sentencing disparities among the [eight] judicial districts, as indicated by rates of incarceration [could] not be explained by the amount of criminal activity, number of arrests, or conviction rates [;] Nor [could] they be explained by variances in the characteristics of the offenders." (Advisory Commission on Corrections Relief: 1977; p. 75)

The rationale for assuming that variations in the sentences imposed on convicted offenders at the judicial district level might be attributable to the location of the sentencing court was based on the results of prior studies from the rural-urban literature and the public policy/decision making literature. Previous research in the rural-urban area had uncovered evidence of differences in attitudes and values of rural as compared to urban residents, differences which at a general level of abstraction could be characterized as being more liberal or conservative in orientation. Second, and from the public policy/decision making literature were findings which indicated that the attitudes and values of local residents appear to mirror and shape the public policy decisions of local leaders and officials. These findings coupled with the proposition that judicial sentencing could properly be regarded as representative of public policy making provided a basis for

the supposition that differences in the criminal sentences imposed on convicted offenders, unaccounted for at the judicial district level might be accounted for at the rural-urban level.

Review of the criminology/criminal justice literature revealed that while the rural-urban concept had received considerable attention as an explanatory theme in the environmental causes of crime, it had not received quite so much attention as an explanatory theme in the environmental responses to crime. Three empirical studies which either directly or indirectly considered the rural-urban variable as a factor in criminal sentencing were located. One study found it to be more highly associated with length of sentence vis-a-vis a number of other relevant characteristics for certain types of criminal offenses; a second, that it was a contributory factor in explaining the different types of sentences imposed on convicted offenders; and in the third, that the rural-urban variable in combination with several other relevant variables resulted in different types and lengths of sentences being imposed on convicted offenders. Based on these findings and the conceptual linkages between rural-urban attitudes and values, public policy/decision making and judicial sentencing, two general hypotheses specific to the type and length of sentence imposed on convicted offenders in rural, suburban and urban courts were advanced.

Data for the study was derived from existing sources including the Iowa Division of Adult Corrections and the Bureau of Correctional Evaluation within the Iowa Department of Social Services. Originally, 9,156 cases were contained in the data set but for a number of reasons,

including timeliness and relevancy, the final analysis was based on a primary sub-sample of 1,664 cases and a secondary sample of 53 cases. Analysis of the data was guided by a correlational type of research design which employed both simple and multivariate levels of analysis.

The major findings from the study centered on the three topics--type of sentence, length of sentence and classification of residential offenders. Regarding type of sentence the following was found: 1) in comparing the three types of courts, and to a lesser degree semi-rural courts, sentence a disproportionate number of older and non-white offenders to prison, notwithstanding the absence of relevant legal criteria; 2) within rural courts a disproportionate number of non-white offenders and offenders with three or more legal dependents were sentenced to prison, notwithstanding the absence of relevant legal criteria; 3) within urban courts legal considerations were of greater importance than extra-legal in accounting for the type of sentence received by offenders, while within rural and to an extent in semi-rural courts as well, the opposite was true.

Regarding length of sentence, no significant differences were found except for urban courts where legal variables have greater explanatory power than extra-legal variables.

For those offenders sentenced in Polk county to residential corrections it was found that they were relatively similar in their overall or average characteristics to probation offenders but dissimilar to institutional offenders, both within Polk county and the state as a whole.

Comparison with Previous Research

The findings of the study are with several notable exceptions supportive of those uncovered by previous investigations. Like both Pope and Hagan, it was found that rural courts tended to sentence minority offenders disproportionately to more severe types of sentences, i.e., prison, even when relevant legal variables were introduced into the analysis. In urban courts, however, no such differences were observed.

Consistent with Hagan was the finding that urban courts seemed to adhere to a more legalistic model of decision-making regarding the type of sentence imposed on offenders. That is, legal variables were found to play a more important role in the sentencing decision in urban courts; whereas, in rural courts the opposite was true. Here extra-legal variables were of considerable importance.

Aside from these similarities a number of findings were uncovered which are at odds with those of previous efforts. Most notable is the finding by Pope that female offenders adjudicated at the lower court level received less severe sentences, i.e., probation, than their male counterparts and that this difference was more pronounced in urban then in rural courts. In the present study no such differences were uncovered. In fact no substantial relationships, either within or between courts, were found with respect to male and female offenders.

Disparate findings also existed regarding the variable age. Unlike Pope who found no relationship between the rural-urban variable

and type of sentence controlling for age, this study found that a difference did exist. Compared to urban, rural courts sentenced a disproportionant number of older offenders to prison and within rural courts a disproportionant number of older as compared to younger offenders were sentenced to prison. Moreover, these findings remained even when relevant legal variables were introduced.

Regarding length of sentence the findings of this study differ in only one account of those of previous investigations. At the superior court level Pope found that female offenders were more likely to receive shorter sentences than males and that this difference was more evident in rural than in urban courts regardless of legal considerations. No such differences were found in this study.

In assessing the findings of this study vis-a-vis those of past efforts, most notably Pope's study, several considerations need to be mentioned. First, the definition of the rural-urban variable in this study differs from both that of Hagan's and Pope's, which, in turn, differ from one another. Moreover, the definition employed in this study contained, in addition to rural and urban courts, a third court setting, namely, semi-rural. Thus, any comparisons among the findings of the three studies must consider this difference. Second, in his study, Pope, in addition to considering the rural-urban variable, also differentiated between lower and superior courts. Since this variable was not available in the present study, similarities and/or differences in findings between the two studies may be, and probably are, affected by this consideration.

Although these differences in definition and consideration warrant a degree of circumspection regarding the definitiveness of the relationship between the rural-urban variable and criminal sentencing, the findings of the Pope and Hagan studies, coupled with those of this study, lead to a number of conclusions, albeit tentative. First, and at the general level, urban as compared to rural courts seem to adhere to a more legalistic sentencing model, at least with respect to the types of sentences they impose on certain groups of convicted offenders. While this conclusion should not be viewed as a vindication of the sentencing process in urban courts, since individual differences may exist within such courts (see Levin 1977), it does nonetheless indicate that urban courts focus on a narrower and more relevant set of factors in the decision-making process than do rural courts.

Second, convicted offenders who are members of minority groups appear to receive different treatment in rural than in urban courts vis-a-vis their white counterparts. The findings from both Pope and Hagan's studies and the findings from this study as well indicate a certain bias in the types of sentences these offenders receive in rural courts. This suggests that racial attitudes, which are generally more acute in rural areas to begin with, are also reflected in the sentencing decisions occurring in these court settings.

Regarding sex the conclusions are somewhat disparate. While Pope uncovered substantive rural-urban differences in both the type and length of sentences imposed on female as compared to male offenders, such findings were not found in the present study. However, non-substantive

differences were found which support rather than dispute Pope's findings. For example, regardless of court setting it was found that female offenders were more likely to receive a probation sentence than their male counterparts, and that this difference, while falling short of being substantive, could be characterized as monotonic across court settings. That is, differences in the type of sentence received by female as compared to male offenders ranged from least acute in urban courts to most acute in rural. Table XXXVII contains these findings.

Table XXXVII. Type of Sentence by Rural-Urban by Sex

Type of Sentence	Rural-Urban					
	Rural		Semi-Rural		Urban	
	%	N	%	N	%	N
			Male			
Prison	9.0	(19)	10.0	(38)	8.6	(73)
Probation	91.0	(191)	90.0	(342)	91.4	(772)
Chi square = .5893			Kendall's Tau C = .0084			
Significance = .7448			Significance = .2923			
			Female			
Prison	0	(0)	5.3	(3)	7.5	(11)
Probation	100	(24)	94.7	(54)	92.5	(135)
Chi square = 2.1293			Kendall's Tau C = -.0406			
Significance = .3448			Significance = .0964			

Similarly, it was also found in the present study that female as compared to male offenders received shorter sentences regardless of court setting, but that this difference was again more pronounced in rural than in urban courts. In rural courts the association was $r = -.07$. For semi-rural and urban courts the association was $r = -.02$ and $r = -.03$, respectively. However, none of the relationships were significant at the .05 level or less. Thus, it would appear that sex difference among court settings are more reflective of differences in degree rather than in kind, and that rather than being at odds the findings of this study tend to support those found in Pope's study. However, it should also be noted that Pcpe employed a categorical measure of length of sentence; whereas, the measure employed in this study was continuous.

Two additional findings from the present study appear to be at odds with those from previous investigations. Regardless of age, Pope found that while older offenders sentenced by urban, as compared to rural courts, were more likely to receive a probation sentence, this difference was not substantial. In the present study a substantial difference was uncovered. Conversely, Pope found a substantial difference in the percentage of younger offenders given probation sentences in urban as compared to rural courts. In the present study similar trends but no substantial differences were found. Thus, and as in the previous case with sex, the differences seem to represent a difference of degree rather than kind.

By the same token, however, Pope's findings within court settings regarding age differ somewhat with the findings of the present study.

While Pope's finding that older offenders from rural courts were more likely to receive a prison sentence than younger offenders is consistent with the present findings, his finding that this was also the case within urban courts is inconsistent with this study's findings. Whether this discrepancy is due to the fact that Pope's findings were based on an analysis of superior courts whereas, this study, did not differentiate between lower and superior courts or, whether the difference reflects local variations based on the geographical locations of the two samples, is uncertain. As with most phenomenon, however, it no doubt reflects a combination of both considerations.

The remaining conclusion and one peculiar to the present study centers on the finding that in rural courts offenders with three or more legal dependents, as compared to those with two or fewer, were more likely to receive a prison sentence. This finding is partially accounted for, however, by the finding that in rural court settings non-white offenders are more likely than their white counterparts to have three or more dependents and that non-white offenders sentenced by rural courts were more likely to receive a prison sentence to begin with.

Implication of Findings

The findings from the study contains a number of theoretical and policy-related implications regarding criminal sentencing and the rural-urban variable.

From a legal perspective and contrary to legalistic expectation it appears that certain groups of offenders in the state of Iowa are

being subjected to a dual standard of law which depends upon the location of the sentencing court, in addition to legal considerations associated with the offender and the offense. Convicted offenders sentenced by rural and to some extent semi-rural courts tend to receive harsher types of sentences than their urban counterparts, notwithstanding the absence of relevant legal considerations which might justify such sentences. Moreover, within rural and in some instances semi-rural courts as well, there also appears to exist a dual standard in that similar persons convicted of similar offenses are not given similar types of sentences. Given one theoretical legal premise that the law should be blind to anything other than the legal issues associated with the offender and the offense, then it should also follow that the type of sentence meted out reflect this impartially. In rural Iowa courts, and to a limited extent in semi-rural courts, this apparently is not the case.

An important policy-related implication arising from this dual standard of sentencing is that it provides support for those who are presently calling for the formulation and implementation of sentencing guidelines as a means of bringing a degree of standardization to the sentencing process. In this context standardization is viewed as a means of reducing, if not totally eliminating, the potential for disparity in sentencing. Given the disparate sentences imposed by rural and semi-rural Iowa courts, the philosophy of sentencing guidelines could serve as a guide for a more standardized system of sentencing.

The findings from this study also contain implications for the rural-urban concept. Previous discussion (see Chapter I) has established

the existence of two schools or competing points of view regarding the merit of a rural-urban distinction as a useful concept in accounting for social variation. Based on the findings of the study it would appear that partial vindication of the rural-urban concept has been achieved. Differences in sentencing outcomes were uncovered between rural and urban courts, but in addition, the differences ranged in a monotonic manner from rural through semi-rural to urban court settings. This range coupled with the manner in which the differences occur parallels and is consistent with the ideological change from liberalism to conservatism between urban and rural settings and supports the notion of a rural-urban concept. Moreover, the difference in sentencing patterns among rural, semi-rural and urban court settings also provides indirect support for assuming that regional characteristics influence criminal justice policy, including the judicial decision-making process in Iowa. The rationale for assuming so is based on previous discussion (see Chapter II) which established that judicial decisions are examples of public policy decisions and that these decisions can be and probably are influenced by local attitudes and values. However, on this point there appears to be some uncertainty, at least with respect to whether judicial decisions are accounted for by local attitudes and values or whether the decision-making process is more a reflection of the degree of bureaucracy found among different court settings.

For example, a number of previous works dealing with the criminal courts and sentencing (Turk, 1976; Reiss, 1974; Tepperman, 1973), argue

that "for the courts, at least, to urbanize means to bureaucratize" (Hagan: 1977, p. 597). The implication is that urbanization leads to bureaucratization of the court structure and process. Conversely, and as a logical consequence of the above, it could be anticipated that non-urbanization implies an absence or at least less bureaucracy. According to this position then, rather than it being the attitude and values of urban residents that exert an influence on the sentencing process it is the bureaucratic structure of the urban courts which do so.

One of the consequences of this organizational structure for the sentencing process is that it leads to greater uniformity and less variation in the sentences imposed on convicted offenders (Hagan: 1977, p. 609). Hagan's findings, as well as the findings of this study, appear to offer support for this conclusion, since in both studies it was found that once relevant legal variables were introduced any variation in sentencing which existed in urban courts disappeared.

Yet there exists uncertainty regarding the validity of the bureaucratic theme as a determining factor in the sentencing process. The source of this uncertainty stems from a variety of areas. First, there exists a number of alternative schemes for explaining the outcome of the sentencing process in the urban court setting. Eisenstein and Jacob, for example, posit that the work group is central in analyzing and accounting for the decision-making process in urban trial courts. Work groups are the court personnel that decide the disposition of a particular case (Eisenstein and Jacob: 1977; p. 20). Mohr, on the other hand, concentrates on the decision-making of urban courts,

realizing that a difference exists among courts and analyzes what factors prompt the choice of the decision-making system to be used. He concludes that the decision-making process can be categorized into any one of four models depending on the goal(s) which the court participants wish to achieve (Mohr: 1976; p. 45).

A second source of uncertainty regarding the bureaucratic model stems from Pope's study. Although Pope failed to explicitly state the underlying dynamics for assuming why the rural-urban variable should be associated with sentencing outcomes, his findings, nonetheless, do not seem to support the bureaucracy theme. Contrary to expectation, a lack of uniformity existed in the sentencing outcomes. For example, variation existed in the type of sentences female offenders received at the lower court levels; however, no such differences were observed at the superior court level. Similarly, age variations were found to be non-substantial at the lower court level, but at the superior court level substantial differences were found.

A third source of uncertainty regarding the appropriateness of the bureaucratic theme as an explanatory framework of rural-urban sentencing rests in the uncertainty as to the identity of what it is that leads to greater variation in sentencing outcomes in non-urbanized, non-bureaucratic court settings. That is, if it is bureaucracy which is responsible for less variation or greater uniformity in the sentencing process in urban courts, what is the identity or what is it about rural courts that leads to greater variation or a lack of uniformity vis-a-vis urban courts? Other than it being the non-bureaucratic structure of these court settings no further explanation is offered.

One advantage of employing the norms-attitudes-values theme as a framework for analyzing the decision-making process in rural and urban court settings rests in its versatility. Unlike the bureaucracy-theme which views the decision-making process in rural courts as being affected by the non-bureaucratic structure of these courts, the nature or substance of which is never truly identified, the norms-attitudes-values theme does provide a substantive rationale for viewing the decision-making process in rural courts while simultaneously accounting for that process in urban courts as well.

Limitations of Study

The findings from the study along with the implications drawn from it are limited by a number of considerations which are subsumed under the issue of internal and external validity.

Probably the most significant consideration and one affecting the internal validity of the study is the fact that the data was removed from archival sources. Thus, there is no assurance that original information from which the data set for the study was constructed was itself without processing or coding errors, since there was no way of controlling or verifying its accuracy. Moreover, the internal validity issue is further compounded by the fact that there existed duplication errors within the two sets of data collected from the Bureau of Correctional Evaluation and secondly, that the most recent of the two data sets collected from the Bureau had not been completely edited, leaving an unknown number of errors sprinkled throughout the 3500 cases collected,

cases which formed part of the data set used in this study. In addition, the data collected from the Board of Parole files--the third of the three data sets--were not comprehensive. That is, due to either file inadequacies or collection errors, approximately 200 of the 1,948 total institutional cases were not included.

A second source of potential invalidity deals with those considerations which were not included in the original data source but which, nonetheless, may have had an influence on the sentencing process. They include such factors as the social background of judges, the physical appearance or mannerisms of the offender, whether counsel was present, and if so, whether appointed or retained, and the type of plea entered.

Another issue seriously affecting validity rests in the small number of cases found in several cells in the tabular analysis, especially where legal control variables were introduced and notably with respect to rural courts. For example, when the relationship between court setting and type of sentence controlling for race was examined, the cases per cell for non-whites sentenced to prison in rural courts was three and in suburban courts four. For minimum assurance of validity five cases are normally recommended.

Future Research

The findings and implications as well as the limitations associated with this study lead to a variety of suggestions regarding future research efforts in the area of criminal sentencing and the rural-urban factor. Several of the more salient of these considerations are discussed here.

An important consideration of any future research should be the inclusion of additional legal variables in the analysis. Previous sentencing research (see Table I) has found that such legal variables as the type of plea--guilty vs not guilty, the type of counsel--retained vs appointed, pre-trial status--released vs confined, and the type of trial--judge vs jury are potential determinants of sentencing outcome. Inclusion of these types of variables in future studies would further define the nature of the relationships between the rural-urban factor and criminal sentencing.

Like the majority of previous investigations that have focused on criminal sentencing, the data base employed in this study was limited to felony offenders. While felony cases represent a significant group of offenders, both in terms of sheer numbers and the nature of the offenses they commit, they do, nonetheless, represent only a minority of the total caseload of criminal courts. Future studies dealing with criminal sentencing should consider focusing on misdemeanor offenders as well, since such cases represent the bulk of the cases in criminal courts. It may well be that inclusion of such cases in future studies or separate studies dealing solely with misdemeanor offenders would provide further insight into the judicial decision-making process and clarify the relationship between the rural-urban factor and criminal sentencing. While misdemeanor cases were included in the original data set from which the data for this study was drawn, such cases were not included in the study due to the fact that only two categories of the dependent variable were available and the vast majority (98%) of misdemeanor offenders were given probation sentences.

A future study replicating this one should also be undertaken. There are a number of reasons for doing so. First the present study is based on data from the state of Iowa and while such data is probably not that unrepresentative of the sentencing process in other states, research conducted in another geographical area would strengthen the generalizability of the results already achieved. Second, the data base for the present study, as discussed previously, contains a number of deficiencies which potentially distort the findings of the study. Replication of the study either in Iowa or elsewhere would provide additional support for assuming that sentencing differences in rural and urban courts are genuine and not a reflection of distortions in the data.

Finally, research should be undertaken to determine whether the bureaucracy theme or the theme of norms-attitudes-values represents the more realistic of the two frameworks for viewing the sentencing process in rural and urban courts. One approach towards resolving the conflict would be to undertake a sentencing study in several different court settings which vary in both their degree of rural-urbanism and bureaucracy. For example, one possibility would be to examine sentencing outcomes in rural courts which are bureaucratic in structure--assuming such courts exist. If little variations in either the type or length of sentence were uncovered this would provide partial vindication of the bureaucratic framework. On the other hand if variation did exist, then support for the norms-attitudes-values framework would be enhanced.

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