



12-1988

Perceived Severity of Informal Sanctions: A Case Study of Convicted DUI Offenders in Cass County, North Dakota

Terry D. Stratton

Follow this and additional works at: <https://commons.und.edu/theses>

 Part of the [Psychology Commons](#)

Recommended Citation

Stratton, Terry D., "Perceived Severity of Informal Sanctions: A Case Study of Convicted DUI Offenders in Cass County, North Dakota" (1988). *Theses and Dissertations*. 849.
<https://commons.und.edu/theses/849>

This Thesis is brought to you for free and open access by the Theses, Dissertations, and Senior Projects at UND Scholarly Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UND Scholarly Commons. For more information, please contact zeinebyousif@library.und.edu.

T1988
St82
cop.2

PERCEIVED SEVERITY OF INFORMAL SANCTIONS:
A CASE STUDY OF CONVICTED DUI OFFENDERS
IN CASS COUNTY, NORTH DAKOTA

by
Terry D. Stratton

Bachelor of Arts
University of North Dakota 1986

A Thesis

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Arts

Grand Forks, North Dakota

December
1988

T1988
ST82
cop. 2

This thesis submitted by Terry D. Stratton in partial fulfillment of the requirements for the Degree of Master of Arts from the University of North Dakota has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.

James H. Larson
(Chairperson)

Janet Kelly Moe
Johanna Williams

This thesis meets the standards for appearance and conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Steve D. Perry 24.X-88
Dean of the Graduate School

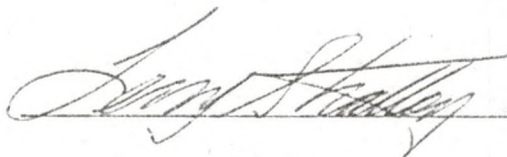
Title Perceived Severity of Informal Sanctions:
A Case Study of Convicted DUI Offenders in
Cass County, North Dakota

Department Sociology

Degree Master of Arts

In presenting this thesis in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the Library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the Committee Chairperson who supervised this thesis work or, in his absence, by the Chairman of the Sociology Department or the Dean of the Graduate School. It is understood that any copying or publication or other use of this thesis or parts thereof for financial gain shall not be allowed without first obtaining written permission from the author. It is also understood that due recognition shall be given to the author and to the University of North Dakota in any scholarly use which may be made of any material within this thesis.

Signature



Date

10-04-88

TABLE OF CONTENTS

LIST OF TABLES.....	vi
ACKNOWLEDGMENTS.....	vii
ABSTRACT.....	viii
CHAPTER I. STATEMENT OF THE PROBLEM.....	1
Public Sentiment.....	4
DUI as Deviant Behavior.....	7
The Deterrence Model.....	9
Current Legal Sanctions.....	10
Empirical Research.....	12
Need for This Research.....	14
Summary of the Problem.....	16
Preview of Study.....	16
CHAPTER II. THERORETICAL OVERVIEW.....	18
The Deterrence Model.....	19
Sanctions Defined.....	20
Relationships.....	23
Empirical Research.....	23
Driver Characteristics.....	24
Relationships.....	26
Age.....	26
Socioeconomic Status (SES).....	26
Conventional Ties/Marital Status.....	26
Conventional Ties/Social Integration.....	27
Community Cohesion/Geographic Mobility.....	28
The Hypotheses.....	28
CHAPTER III. METHODS AND PROCEDURES.....	30
Data Collection.....	30
Sample Population.....	32
Methods of Analysis.....	34
Data Limitations.....	36
The Dependent Variable.....	39
Factor Analysis Interpretation.....	40
Independent Variables.....	42
Preview of Findings.....	45
CHAPTER IV. FINDINGS.....	46
Social Status Relationships.....	49
Social Status Elaborated.....	51
Income.....	51
Occupation.....	52
Education.....	54
Gender.....	55

Primary Ties.....	59
Marital Status.....	60
Example-Setting Roles.....	61
Marital Status/Example-Setting Roles.....	64
Conventional Ties/Social Integration.....	66
Length of Residence.....	66
Size of Current Community of Residence.....	69
CHAPTER V. SUMMARY AND CONCLUSIONS.....	72
Potential Policy Implications.....	76
APPENDICES.....	78
APPENDIX A. SURVEY QUESTIONNAIRE.....	79
APPENDIX B. RELIABILITY COEFFICIENTS.....	86
REFERENCES.....	87

LIST OF TABLES

Table 1.	Legal Sanctions for DUI in North Dakota.....	11
Table 2.	Reported Offense by Gender.....	33
Table 3.	Age of Respondents by Gender.....	33
Table 4.	Blood-Alcohol Content (BAC) by Gender.....	34
Table 5.	Oneway Analysis of Variance of Social Status and Perception of Severity of Informal Sanctions.....	50
Table 6.	Oneway Analysis of Variance of Income and Perception of Severity of Informal Sanctions.....	52
Table 7.	Oneway Analysis of Variance of Occupational Status and Perception of Severity of Informal Sanctions.....	54
Table 8.	Oneway Analysis of Variance of Educational Level and Perception of Severity of Informal Sanctions.....	55
Table 9.	Student's t Score for Males and Females for Perception of Severity of Informal Sanctions.....	58
Table 10.	Oneway Analysis of Variance of Marital Status and Perception of Severity of Informal Sanctions.....	60
Table 11.	Mean Breakdown of Perception of Severity of Informal Sanctions by Marital Status.....	61
Table 12.	Student's t Score of Respondents Living with Children Under 18 for Perception of Severity of Informal Sanctions.....	63
Table 13.	Mean Breakdown of Perception of Severity of Informal Sanctions by Marital Status/ Example-Setting Role.....	66
Table 14.	Oneway Analysis of Variance of Length of Residence and Perception of Severity of Informal Sanctions.....	68
Table 15.	Mean Breakdown of Perception of Severity of Informal Sanctions by Length of Residence.....	69
Table 16.	Mean Breakdown of Perception of Severity of Informal Sanctions by Size of Community of Residence.....	70
Table 17.	Oneway Analysis of Variance of Size of Community of Residence and Perception of Severity of Informal Sanctions.....	71

ACKNOWLEDGEMENTS

I would like to thank the members of my graduate committee: Dr. James H. Larson, chairman, Dr. Janet Kelly-Moen, and Dr. John D. Williams. Their valuable insights have proven imperative not only in the development and analysis of this study, but also as an essential part in my continual development as a researcher and as a person. For unselfishly sharing their knowledge and expertise, I extend my sincerest gratitude.

I would also like to extend my thanks to Dr. Richard L. Ludtke and Dr. Jack M. Geller for their thoughtful comments and recommendations. To the entire faculty and staff of the Sociology Department, who have been incredibly supportive in contributing to the formation and subsequent completion of this study, a special thanks. Your guidance and encouragement is truly appreciated.

My thanks and grateful appreciation to Grover Diemert and his staff at Center, Inc., in Fargo for their assistance and cooperation throughout the progression of this study. Without their help, this study would have been little more than a research idea. Thanks immeasurably to their efforts, it is much more than this.

Lastly, I would like to thank my friends and colleagues at the Center for Rural Health Services, Policy, and Research for their unending encouragement and interest in my well-being. For the long nights spent writing that resulted in work-day mornings coming too early, I thank you all for your patience and understanding. Your consideration has not gone unnoticed.

ABSTRACT

It is estimated that alcohol plays a factor in between 35 and 64 percent of all fatal crashes and between 6 and 25 percent for non-fatal accidents, resulting in alcohol being involved in about half of the roughly 50,000 annual traffic fatalities in the United States. Clearly, drinking-and driving is a major contributor in both the severity and the frequency of traffic accidents.

The basic concept of deterrence states that people will refrain from behavior defined as socially-unacceptable if the resulting perception and fear of penalties (or sanctions) against such action are adequately undesirable in comparison to the potential benefits of the behavior. Informal sanctions, those that are channeled through non-formalized media such as friends, family, or some other relevant collectivity, are oftentimes considered a much more effective deterrent for some offenses than are the formal sanctions imposed by the courts.

However, the dynamics of the informal sanction have impeded research into the individual perceptions and effects of such an elusive social control mechanism. It is hypothesized that the presence of certain personal and social characteristics may be related to the severity of informal sanctioning radiated from others toward that person.

This study applies this theoretical foundation to the offense of DUI. From November of 1987 through May of 1988, a questionnaire was administered to a group of 122 people convicted of DUI in Cass County, North Dakota. The offenders sampled were participants in the Cass County First Offender DUI Program, an educative/punitive program

designed as an alternative to jail sentences for those deemed by a license addiction counselor to be free of any chemical dependency problem.

Upon constructing a scale comprised of 13 Likert-type items, the following findings were conferred: social status (income, education, occupation) showed no relationship with the offenders' perceptions of informal sanctioning, although the variables of occupational status and income did so moderately.

Gender proved to be the most discriminating factor in the perceived severity of informal sanctions, with females markedly more likely to be sanctioned informally than males. As an example of the influence of primary ties on informal sanctions, marital status was an insignificant factor, as was the presence of an example-setting role (indicated by whether or not the respondent shared his/her current residence with a family member under the age of 18). When combined with marital status, however, those respondents responding positively to the presence of a family member under 18 did score higher than both their single and married counterparts, although not significantly so.

As another example of primary ties, this time to the community, the length of residence and the size of the community were both found to be largely insignificant in the perceived severity of informal sanctions. In the case of size of community of residence, those living within metropolitan areas (100,000+) did indicate the lowest perceived severity of informal sanctions related to their DUI than did any other category. This trend, however, did not emerge consistent as community of residence increased.

Chapter I

STATEMENT OF THE PROBLEM

Drinking-and-driving in the United States is far from a recent development. However, while the cultural presence of alcohol is a long-established predecessor to the automobile, modern motorized technology has recently placed a remarkable amount of individual power within the reach of the majority of adult Americans (Haddon and Blumenthal, forward in Ross 1984a, p. xiii).

Indeed, the existence of a "drinking-driving problem" in this country is the result of a procedure by which automobile fatalities have become a problem of societal concern, to be acted upon by public officials and agencies (Gusfield 1981, p. 3). Increasingly stringent auto safety standards, mandatory use of occupant restraints, and improvements in highway design have attributed to a continued decrease in traffic fatalities over the past 20 years. Nonetheless, although research disputes exactly how strong an influence alcohol plays in traffic accidents, the fact that it exacerbates the frequency and severity of accidents is less a matter of debate. Ross (1984a) estimates that alcohol typically plays a role in less than 10 percent of the run-of-the-mill automobile crashes, about 20 percent of the crashes resulting in serious injury, about 50 percent of all fatal crashes, and about 60 percent of all single-vehicle fatal crashes. Other research concurs, placing alcohol-involvement at between 35 and 64 percent in

fatal crashes and between 6 and 25 percent for non-fatal accidents (Roizen 1982). This results in alcohol being involved in about half of the roughly 50,000 annual traffic fatalities in the United States (Department of Transportation 1968; Jones 1977), making drunk driving a more common cause of death than international violence (Morris and Hawkins 1970).

According to estimates published annually by the National Safety Council (1987), 1985 data from the National Highway Traffic Safety Administration National Accident Sampling System revealed alcohol as a factor in 8 percent of the property damage accidents and 27 percent of the serious injury accidents. This means that in 1986 alcohol was a factor in at least 21,000 fatal accidents, about 320,000 injury accidents, and about 1,300,000 property damage accidents (National Safety Council 1987, p. 52).

However, while the effects of such a relationship are widely accepted, some researchers have questioned the uniqueness of alcohol as a causal agent in traffic collision-involvement, focusing on multivariate rather than univariate explanations (Zylman 1972a; 1972b; Phillips, Ray, and Votey 1984). Clearly, the precise impact between the two is still unknown.

When examining specific age cohorts in relation to traffic fatalities, those between the ages of 15 and 24 are considerably overrepresented in motor-vehicle traffic fatality statistics. According to the National Safety Council (1987), drivers in this age group have the highest death rates of any age group, with about 40 deaths per 100,000 population. The next highest traffic fatality cohort is that of drivers aged 75 and over, with slightly less than 30 deaths per 100,000

population (National Safety Council 1987).

This latter estimate is imperative to the argument that alcohol is the primary factor affecting driver fatalities. Since it has been established that alcohol use is most highly represented in the younger age cohorts (Casper and Mozersky 1968; Yoder and Moore 1973; Pelz, McDole, and Schuman 1975; Carlson 1973;), it might seem less than coincidental that this same age group also exhibits the highest death rate of any age cohort. However, this correlation loses its viability when applied to the oldest age cohort. Perhaps the least represented with regard to alcohol consumption, the death rate remains overly escalated in comparison. Alternative explanations concerning the age-specific relationship between alcohol and traffic fatalities abound within the drug and social science literature (Tillman and Hobbs 1968; Carlson and Klein 1970; Klein 1968; Carroll, Carlson, McDole, and Smith 1970). Thus, while alcohol is undoubtedly a relevant factor, its precise impact upon driver injuries and fatalities is still unknown.

In addition to these human costs, monetary costs of drinking-and-driving (e.g., vehicle damage) have been estimated at \$8-10 billion annually (Cramton 1968). More current estimates place the annual cost of alcohol-related motor-vehicle accidents at about \$12 billion (National Safety Council 1987). Many other less tangible impacts can also be attributed either directly or indirectly to drunk-driving, such as social stigmatization, loss of status, and even potential loss of employment (Flygare 1983).

Public Sentiment

The perception of the drunk-driving offense has undergone a number of transitions, many of which have occurred only within the past several years. A major transformation has been from a victimless crime to one which implies a moral failure of the individual offender (Ross 1984a). This is due in part to the public creation of what Gusfield (1981) calls "the myth of the killer drunk".

Other social transformations of drinking-and-driving are less recent and more cultural in nature. For instance, prior to the nineteenth century, drinking and drunkenness were seldom used to account for accidents or crime (Gusfield 1981). The emphasis in cartoons and fiction was less on the tragedy involved than on the supposed humor of such situations (Smith 1926), a view Ross (1984) maintains exists to some extent even today.

However, while all "socially responsible" parties will attest to the illegality of DUI (DUIA and DWI), criminologists and sociologists alike remain uncertain as to its appropriate classification. For example, Ross (1960) identified DUI as a "folk crime", or one which shares similar characteristics with other deviant acts such as white-collar and welfare chiseling. As opposed to "ordinary criminals," folk criminals are relatively numerous, unstigmatized, and differentially treated in the legal process (Ross 1960, p. 237).

Similarly, Gibbons (1983, p. 213) characterized Ross's "folk crime" within the broader category of "mundane crime", a variety of commonplace, low visibility, and often innocuous forms of lawbreaking

found in abundance in American society.

However, the dramatic transformation regarding the severity of formal punishments for driving-while-impaired lead us to believe that such a shift represents an equally dramatic change in public sentiment. The current view of accidents as results of individual driver performance has become the dominant theme in the cultural organization of accident reality in the United States (Gusfield 1981, p. 41).

Gusfield (1981) further summarizes society's current focus on explaining impaired-driving on a micro rather than a macro level by his experience studying the San Diego court systems in the early 1970s:

" it was taken for granted by those I studied that the problems of auto safety and alcohol were chiefly problems of individuals, of motorists. Institutional explanations and loci of responsibility were eloquently absent from the consciousness of officials, observers, offenders" (Gusfield 1981, p. 7).

This focus on the individual also signaled a closely related change in public perception of the causal factors involved in what has now evolved into a full-fledged public problem, complete with a dominant aura of implied intentionality and moral failure. In his earlier work, Gusfield (1963) noted that the drunk as an offender was transformed from a repentant (or sick) deviant to that of an enemy. Thus, over the period of automobile use in the United States, emphases within the "unsafe driver" theory have shifted from careless but competent drivers to incompetent drivers to special categories of "accident-prone" drivers including the young, the very old, and the alcohol-impaired (Gusfield 1981, p. 45).

However, while researchers recognize a definite relationship between public sentiment and imposed legal sanctions, the direction of such a relationship is unclear. Common sense tells us that within a democratic government, the laws represent the will of the majority, a viewpoint Gusfield (1981) questions in regard to the drunk-driving problem in the United States.

Changing public sentiment is an essential component to evaluating the deterrent framework within which the issue of sanctions are most often dealt. For instance, Ross (1984a) attributes the recent deluge of deterrence-based DUI legislation as a direct result of the anti-drunk-driving movement, comprised of such organizations as MADD, SADD, REDDI, and RID. Other researchers argue that informal sanctions (e.g., negative public reactions, etc.) are an imperative prerequisite for effective legal sanctions (Gibbs 1975, p. 85; Jensen 1969; Salem and Bowers 1970; Tittle and Rowe 1974).

In any case, it is generally conceded that individual perceptions of sanction characteristics are probably more important than the actual characteristics of sanctions (Geerken and Gove 1975; Gibbs 1975; Teevan 1972; Tittle and Logan 1973). After all, people can and do misperceive reality and it follows that they are likely to act on what they believe to be true regardless of whether it is actually true (Tittle 1980, p. 10). As stated by Waldo and Chiricos (1972):

" . . . clearly, the deterrent effectiveness of punishment presumes that potential offenders know or think they know what the penalties are. Further, it must be assumed that offenders and non-offenders act on the basis of their knowledge (Waldo and Chiricos 1972, pp. 525-525, emphasis theirs).

Tittle and Logan (1973) extend this viewpoint further, stating that the possibility exists that deterrence in general may be more a matter of belief than of reality. It is possible that the effectiveness of sanctions hinges on the perceived certainty of their imposition, a factor which may vary from individual to individual and from social group to social group (Tittle and Logan 1973, p. 380).

DUI as Deviant Behavior

Although many societal motives which are woven into complex sociological theories attempt to explain why certain behavior is deviant and who benefits from judging it as such, deviance defined is less ambiguous. Simply stated, the essence of deviance is behavior held in disrepute by most people in a given social context (Tittle 1980, p. 42).

However, Tittle (1980) goes on to argue that deviance is evaluated on the status of the behavior, not on its rarity or typicality. That is, if DUI is evaluated as deviant behavior by most people in a given social situation, it will continue to be classified as such even though most people in that same social context actually practice it (Tittle 1980, p. 43).

A more appropriate and accepted method of defining deviance is in terms of social sanctions. Schur (1971) describes deviance as disapproved behavior about which something is done, while others argue that only those behaviors that evoke active reactions from a collectivity (or audience) or from formal agents of that collectivity can be considered deviant (Tittle 1980, p. 44).

From the review of the most recent information available, it appears impossible to confidently define the offense of DUI in terms of societal reactions on anything less than a regional basis. While stating that the collective sentiment toward DUI within the United States has undoubtedly harshened is a safe conclusion, the varying degrees to which this is the case is clearly more a regional phenomenon. To use the extended sample environment of North Dakota as an example, the public's perception of DUI appears to be largely the result of community and regional involvement rather than the direct result of any state or nationally-established mandates.

With the implementation of various opposition groups such as MADD, SADD, REDDI, etc., certain communities have initiated a state of public awareness within their respective environments. By the same token, however, a lack of organized community response-groups has resulted in a seemingly unaware if not apathetic approach to the DUI problem in some areas. Definition of the offense of DUI, it seems, is dependent largely upon well-organized community-based opposition.

Nonetheless, based upon considerable personal experience and involvement in the DUI issue at both the state and local level, it is this researcher's opinion that the attitude toward DUI within the immediate survey area is one of something more than simply a traffic offense. Personal implications, dissemination of legal sanctions, and feasible alternatives to driving after drinking are among the most pertinent messages communicated by public education programs, the mass media, and community workshops.

While other communities have managed similar attempts to sway the public perception of DUI away from that of a "folk crime" (see Ross

1960), such efforts often fall short due to an inability to sustain funding, community involvement, or both. It appears that the responsibility of attributing to DUI the serious connotation it deserves lies in the hands of community leaders, progressive educators, and concerned citizens.

The Deterrence Model

Before progressing to the issue of offender perceptions of sanctions, the issue of deterrence must be addressed, for it is within this equation that the true effect of these perceptions is most essential. Simply stated, deterrence is the omission of an act as a response to the perceived risk and fear of punishment for contrary behavior (Gibbs 1975, p. 2, emphasis his).

Such a concept, although having established itself long before modern-day exchange theory, is perhaps the most obvious and commonplace example of weighing risk of sanction against outcomes of reward. Indeed, the fundamental premise of criminal justice is that people fear punishment and will obey the law if it provides a sufficient sanction threat (Tittle 1980, p. 1). As applied to traffic laws, Zimring and Hawkins (1973) maintain that in order for criminal law enforcement to be an effective deterrent for drunk-driving, a theoretical assumption is made that the individual motorist can be led to more diligent driving through fear of police apprehension and legal punishment.

Current Legal Sanctions

The 1983 report of the Presidential Commission on Drunk Driving reported that during the previous year, thirty-nine states had enacted "improved" legislation. As quoted by Ross (1984a, p. 117), "legislators, enforcement officials, prosecutors, and judges around the country have responded to society's demands by enacting more effective legislation, apprehending more offenders, effectively prosecuting offenders, and meting out more appropriate sanctions."

In a related effort to combat the problem of youthful overrepresentation among the country's traffic fatalities, a Federal mandate threatening forfeiture of millions of dollars of state-targeted highway appropriations was implemented, resulting in virtually all fifty states have either raising or agreeing to maintain a legal minimum drinking age of twenty-one. In addition, jail sentences (in some cases even for first offenders), chemical evaluation, drivers license suspension, and minimum fine are among the most common mandatory legal sanctions enacted into law by many state legislatures.

In 1983, the 48th Legislative Assembly of the State of North Dakota enacted and amended sections of Title 39 of the North Dakota Century Code (NDCC) dealing with DUI, drivers license suspension/revocation, implied consent, and sentencing (See Table 1). It should be noted that these mandatory sanctions applied only to DUI during their original conception, but were expanded to include the offense of actual physical control (APC) in 1988. Other major provisions should also be noted. For those offenders 18 years of age or older who, because of drug

-impaired driving, cause the serious injury of another person, a minimum one-year incarceration for each death and ninety consecutive days for each injury is prescribed.

Table 1. Legal Sanctions for DUI in North Dakota

FIRST TIME OFFENDER

1. A fine of at least \$250 (\$500 maximum)
2. A 90-day license suspension (maximum 30 days imprisonment)
3. A mandatory referral for an addiction facility for chemical dependency diagnosis

SECOND TIME OFFENDER (within five years)

1. A \$500 fine
2. Four (4) days imprisonment or ten (10) days community service work (if imprisoned, then 48 hours must be consecutively served) (30 days imprisonment maximum)
3. A license suspension of at least one (1) year
4. A mandatory referral to an addiction facility for diagnosis and subsequent in-patient/out-patient treatment

THIRD TIME OFFENDER (within five years)

1. A \$1,000 fine
2. Sixty (60) days imprisonment (maximum one (1) year imprisonment)
3. A license suspension of at least one (1) year
4. A mandatory referral to an addiction facility for diagnosis and subsequent in-patient/out-patient treatment

FOURTH TIME OFFENDER (within seven years)

1. A \$1,000 fine
2. One hundred and eighty (180) days imprisonment (maximum one (1) year imprisonment)
3. Driving privileges may be restored only after the offender has completed addiction treatment and has not committed any alcohol-related offenses of any kind for at least two (2) consecutive years following subsequent in-patient/out-patient treatment

It is stressed that these legal sanctions are mandatory minimum requirements. That is, minimum sanctions do not prevent a court from imposing the maximum sentence allowed by law. The mandatory minimum punishments were legally prescribed in part to elicit from the various courts some type of collective consistency in DUI sentencing. These minimum punishments, however, do not take away from the individual discretion of the presiding justice.

For instance, in DUI cases which involve "atypical" circumstances such as property damage, reckless disregard for human life, past criminal record, etc., the sentence may be imposed at it's fullest severity. In other more "typical" DUI offenses, the legally prescribed minimum may be applied. Unfortunately, the system falls short in it's quest for consistency due to a lack of organized court monitoring and a seemingly impotent ability to sanction judges who fail to sentence offenders with the legally prescribed minimum. In Grand Forks County Court in 1986, an elected county official was sentenced well-below the legal mandatory minimum punishment despite his second DUI conviction in less than five years. From various reports, sentencing discrepancies within North Dakota courts are not uncommon.

Empirical Research

Next to cancer, traffic-related fatalities are the most costly source of morbidity and mortality in modern societies. Despite the drunk drivers' apparent major role in causing them, up to now alcohol-impaired driving has been largely overlooked by sociologists, even those oriented toward social policy (Ross 1984b, pp. 23-24). Indeed, as Ross

(1984b) also points out, because of the individual and often atheoretical focus of drinking-and-driving studies, much of the literature remains relatively obscure and inaccessible.

A substantial portion of the existing research on sanctions maintains a focus on the deterrent effects of perceived sanction-fears on the self-reported incidence of deviant behavior (Salem and Bowers 1970; Tittle and Rowe 1973; Tittle and Logan 1973; Ross 1976; Ross and Blumenthal 1974; Ross 1984b; Shover, Bankston, and Gurley 1977; Anderson, Chiricos, and Waldo 1977; Tittle 1969; Grasmick and Green 1980; Schwartz and Orleans 1980; Tittle 1977; Cramton 1969). In the quest for identifying sanction-related factors which maximize deterrence, the end product is quite often an attempt to discern the strength or influence of such factors (i.e., certainty, severity, etc). Admittedly, from both a policy and a research standpoint, such a focus is indeed beneficial. However, there is a general lack of empirical consensus regarding the social mechanisms through which these factors effectively precipitate sanction fear; that is, why they do what they do.

As Cohen (1966) points out, most major theories of deviant behavior developed within the last century have given little attention to sanctions, choosing instead to emphasize motivations stemming from unusual normative contexts, failure of conventional socialization, psychodynamic problems, or pressure generated by social contexts. With few exceptions, sociologists have been preoccupied with the sources of deviant behavior rather than reactions to deviant behavior (Clark and Gibbs 1965, p. 399, emphasis mine).

With this in mind, Tittle and Logan in 1972 reviewed the literature and concluded that "enough suggestive evidence has been compiled to warrant systematic research efforts and to mandate serious theoretical consideration of the role of sanctions in human behavior and social organization" (Tittle and Logan 1973, p. 385). Since that time, it appears research trends have in fact taken a narrower focus on the deterrent effects of formal and informal sanctions, addressing the impacts of specific sanctions on more typical acts of deviant behavior.

Need for this Research

Sanctions and the subsequent fear of sanctions comprise the integral premise of the central notion of compliance with norms, an essential prerequisite to the workings of a cohesive, coherent society. Ideally, they change in parallel with the dynamics of societal values, reflecting an informal public sentiment which is transformed into a formalized public policy. All too often, however, research has focused on only those issues defined by the majority as bonafide public problems. Because of this, little is known of drinking-and-driving prior to the 1970s.

Today, DUI has gained acceptance as a problem warranting social concern. Researchers should take advantage of the public interest and potential benefits current attention could yield, through both innovative approaches as well as maintenance of historically established foci. In any case, the need to formulate and maintain the interest is essential to understanding and explaining the DUI phenomenon in the context of a changing culture.

Another major downfall of the sanction-related research is the specific exclusion of DUI as deviant activity. As commonplace as drinking-and-driving is within the United States, DUI should be viewed as a unique violation in countless respects. For instance, it carries larger and more costly mandatory sanctions than does shoplifting, indicating that society collectively sees drunk-driving as more serious than stealing. However, DUI citations continue to be commonplace and relatively unstigmatized, indicating that being labeled a drunk-driver holds a less negative reaction in our culture than does being labeled a thief.

In her review of the literature, Vegega (1983, p. 2) concluded that very little information is available on attitudes about drinking-and-driving (i.e., to what degree people consider DUI a problem, their willingness to work towards a solution, etc., emphasis hers).

Thus, the time to recognize drunk-driving as a separate entry in the annals of deviant behavior is long overdue. As such, it should be afforded at least the same expenditure of resources and creativity as is delinquency, mental health, and numerous other norm violations of varying severity. The dynamics of society also demand that DUI be evaluated and classified in the context of modern subcultures as well as cultures. This study attempts to extend this reasoning to the area of DUI-related sanctions within specific environments.

Summary of the Problem

As previously eluded to, drinking-and-driving is not new; what is new, however, is its evolution from what C. Wright Mills (1959) called a "private matter" to a "public concern." Indeed, researchers and reformers now accept drunk-driving as problematic in our society. As Ross (1984a, p. 123) concludes, "I think we must accept the prognosis that no measures will eliminate drunk driving; the best we can do will be to reduce it."

Preview

The proceeding study attempts to distinguish the prevalence and severity of informal sanctioning (in this case negative informal sanctioning) of convicted DUI offenders based upon their individual perceptions. A scale comprising the various domains of informal sanctions has been constructed by which to plot the severity of informal sanctions across specified biographical lines.

Chapter Two will provide a comprehensive overview of relevant related empirical and theoretical research as it pertains to DUI, deviant behavior, and social sanctions. In addition, the theoretical framework of this study will be established, as will the dependent and independent variables to be utilized. Lastly, the specific hypotheses to be tested will be outlined.

Chapter Three provides a methodological overview of the study. Basic characteristics of the sample, the sampling procedure, and issues

of representativeness and subsequent generalizability are addressed, as well as the potential downfalls of the sample and the respective data set. Also included within Chapter Three are the primary variables, their level and means of measurement, and preliminary statistical methods justifying creation of the variable transformations (i.e., informal sanctioning scale).

Chapter Four provides the statistical analyses and findings addressed in Chapter Three combined with the theoretical foundations contained within Chapter Two. Specific analytic procedures such as tests of significance, measures of association, and causal analysis are demonstrated and their respective findings shown. The results of each related analysis will be compared to the previously stated hypotheses as being either supportive, non-supportive, or inconclusive.

The final chapter, Chapter Five, contains the conclusion of the study. Comprised of the statistical findings in Chapter Four combined with the theoretical foundations outlined in Chapter Two, the concluding remarks summarize the potential benefits of the findings. In this case, a substantial portion of the conclusion will focus on potential policy implications regarding the informal sanctioning of DUI as it relates to basic deterrence.

Chapter II

THEORETICAL OVERVIEW

Research on social sanctioning has historically maintained a preoccupation with the deterrent effects of various sanctions, with issues such as severity, celerity, and certainty of punishment among the most frequently scrutinized variables. Indeed, many such studies focus on the serious but statistically atypical criminal deviant acts such as murder, robbery, and theft which occur within a society (Chiricos and Waldo 1970; Waldo and Chiricos 1972; Erickson, Gibbs, and Jensen 1977).

On the opposite end of the deviance spectrum, various other studies utilize this same deterrence theme using less serious offenses such as general traffic violations (Sigelman and Sigelman 1976; Middendorff 1968; Shoham 1974; Shoham, Geva, Markowski, and Kaplinsky 1976). Similarly, other related research has concentrated on deviant drinking behavior (Nathan 1983; Larsen and Abu-Laban 1968) while still others have chosen to address the deterrence issue with an emphasis on the social-psychological construct of risk perception (Claster 1967; Sinha 1967).

Due in large part to the recognition of drinking-driving and DUI as a bonafide social problem, research incorporating deterrence with drinking-driving has only recently become a fertile topical area for researchers and policymakers (Ross 1984a; Gusfield 1981). Major studies linking the notion of deterrence to drinking-driving and DUI have been

applied to national as well as international populations (Ross 1975; 1976; 1977; 1984; Ennis 1977;).

The Deterrence Model

Based on the writings of classical thinkers and philosophers (Beccaria 1963; Bentham 1962), the concept of deterrence states that the rate for a particular type of crime varies inversely with the celerity, certainty, and severity of punishments of that type of crime. Indeed, the fundamental premise of criminal justice is that people fear punishment and will obey the law if it provides a sufficient sanction threat (Tittle 1980, p. 1). Thus, according to Gibbs (1975), deterrence in it's most basic form is the omission of an act as a response to the perceived risk and fear of punishment for contrary behavior (emphasis his).

Cooper (1973, p. 164) defines deterrence as "any measure designed actively to impede, discourage, or restrain the way in which another might think or act." Zimring and Hawkins (1973, p. 7) define deterrence as "principally a matter of the delcaration of some harm, loss, or pain that will follow noncompliance; in short, the central concept is that of threat."

However, Gibbs (1975, p. 2) makes a critical point in regard to both definitions: while the deterrence doctrine focuses specifically on crime and its related punishments, the term "punishment" is ambiguous in that it may refer to prescribed punishments (e.g., statutory penalties) or to actual punishments (emphases his). Hence, subsequently, when the term is used without qualification, it refers to prescribed and/or

actual punishments (Gibbs 1975, p. 3).

Because prescribed, legal punishments are more easily measured and less dynamic than actual punishments given offenders, it serves as a more consistent and reliable construct of punishment than do the more peripheral informal punishments. However, exclusion of such actual punishments because of this hindrance threatens the validity of Gibb's (1975) definition of punishment.

Imperative to this analysis is the notion of specific deterrence put forth by criminologists and other social scientists. According to Gibbs (1975, p. 34), the deterrence doctrine is likely to be misunderstood and rejected unless critics recognize two categories of individuals: 1) those who have suffered a punishment for having committed a crime and 2) those who have not. This distinction is of imperative relevance because the deterrence doctrine can be construed as asserting that individuals who have suffered a punishment for a type of crime are deterred from further offenses (Gibbs 1975, p. 34). This critical period of specific deterrence, therefore, commences after the punishment of someone in response to the criminal acts of the individual in question.

Sanctions Defined

Sanctions are defined as reactions by others that are unpleasant for the perpetrator of a deviant act regardless of whether those reactions are planned or whether they are intended to be unpleasant (Tittle 1980, p. 33). In his publication Sanctions and Social Deviance, Tittle (1980, p. 33) illustrates the relationship among the concepts of

deviance, deterrence, and social sanctions: deterrence is a curtailment of deviance by sanctions.

Although they generally carry a punitive connotation, social sanctions are frequently differentiated as positive and negative sanctions. Positive sanctions constitute those positive reinforcements which reward one for conformist behavior while negative sanctions are those which penalize one for failing to comply to established norms. Applied to DUI, positive sanctions could take the form of reduced auto insurance rates for maintaining a good driving record while negative sanctions are more easily identifiable, such as loss of license or monetary fine. However, our legal system contains very few instances in which people are explicitly rewarded for compliance, rather than punished for deviance (Schwartz and Orleans 1967, p. 280).

Social learning theorists have long recognized the importance of sanctions as they apply to deterrence. In a modernized recapitulation of Sutherland's classic differential association theory of deviant behavior, Akers (1973) outlines the sanctioning aspects of reinforcement and punishment.

Reinforcement is the effect the reactions of others have upon the impending behavior of others. In less technical terms, sometimes our behavior is met by reactions from others (or has some other consequences attached to it) which influence us to do the same thing again under similar circumstances (Akers 1973, p. 49). Consequently, when the events following behavior have the effect of repressing or weakening it (technically decreasing the rate at which it is emitted), we say that punishment has occurred (Akers 1973, p. 50).

Akers's conception of the processes of social control closely parallels the related concepts of positive and negative social sanctions. Indeed, as he also distinguishes between positive and negative reinforcement and punishment, the similarities are evident. However, the origins of these control mechanisms are not of primary concern. Although Akers's social learning theory recognizes that reinforcements and punishments need not be tangible (fines, loss of license, etc.), little distinction is drawn between these and the more dynamic and elusive non-tangible punishments and reinforcements (i.e., loss of occupational status, loss of self-respect, etc.). For this reason, despite its formidable application to sanctioning of the DUI offender, the basic premise of formal and informal sanctions are of greater benefit.

Theorists continue to disagree with regard to the content validity of informal sanctions as a methodological construct, or the extent to which empirical measurement reflects a specific domain of content (Carmines and Zeller 1979). Despite this discrepancy, a clear distinction between the two classifications is consistently made. Informal sanctions are those threatened or imposed by friends, relatives, or a personally relevant collectivity while formal sanctions are formalized penalties imposed by a court of law or by some routinized procedures (Tittle 1980, pp. 9-10). While other researchers (Schwartz and Orleans 1967) distinguish this latter category as legal sanctions, the definition is virtually identical.

Relationships

Although the deterrence theme is central to the argument that various sanctions and their related characteristics impact the risk perception of various individuals differently, it is impossible to take all relevant variables into account to attribute the effect uniquely to sanctions (Tittle 1980). Similarly, the effectiveness of sanctioning practices are largely dependent upon individual perceptions, which may differ radically from individual to individual and social group to social group.

For this reason, while it may be equally beneficial to plot the specific deterrent effect of formal and informal sanctions over time following the punishment, the actual individual perceptions of the implementation of sanctions is of vital importance in the deterrence equation. Research has documented that sanction fear is translated through individual perceptions, which in turn are based largely in part on individual experiences and the experiences of significant others (Tittle 1980).

Empirical Research

Most major theories in deviant behavior developed in this century gave little attention to sanctions. Instead, they emphasized causes of deviance rather than society's response to deviance (Tittle 1980, p. 1; Clark and Gibbs 1965, p. 399).

Perhaps one of the most commonly addressed issues in criminology today is whether or not those arrested accurately reflect the population of law violators in society (Hollinger 1984). Not surprisingly then, many researchers have taken an epidemiological approach by focusing on biographical characteristics of documented offenders in hopes of discerning those most at risk (Hollinger 1984; Borckenstein, Crowther, Shumate, Ziel, and Zylman 1969; Gurnack 1986; Cosper and Mozersky 1968; Vegega 1983; Carlson 1973; Yoder and Moore 1973; Yoder 1975; Pelz, McDole, and Schuman 1975; Beck and Summons 1985; Zung 1984; Hurst 1973; Pandiani and McGrath 1986).

Perhaps the two major research areas of recent emphasis have dealt with determining the extent to which alcohol impacts traffic accidents and the extent to which certain biographical variables may explain the overrepresentation of certain social groups in the arrest statistics. The former has been briefly touched upon in the preceeding chapter simply for illustrative purposes and thus will not be elaborated upon further. Empirical evidence concerning driver characteristics will be summarized in order to establish a foundation on which to base the upcoming analyses between many of these same biographical variables and driver perceptions of informal sanctions.

Driver Characteristics

Research has documented that various social groups and subgroups are consistently overrepresented in DUI statistics. For instance, Zylman (1972b) found that found that drivers of lower social class were overrepresented in the high blood-alcohol content (BAC) and collision

groups. Similarly, Hollinger (1984) found that lower occupational status drivers showed up significantly more often than higher occupational status individuals in the arrested DUI population. Other studies have established a similar link using the construct of socioeconomic status (SES) (Yoder 1975; Hyman 1968; Borkenstein, Crowther, Shumate, Ziel, and Zylman 1969).

Pelz, McDole, and Schuman (1975) examined age on accident involvement in a sample of 1,670 young males and found the highest accident rates without alcohol involvement occurred in the 18-20 age group, while the most alcohol-related accidents occurred in the age range of 22-24 (emphasis mine). In a similar study, Carlson (1973) also found evidence to suggest that these over-involvements are consistent with the learning-to-drive and learning-to-drink-and-drive model of crash occurrence. Also with an emphasis on accident involvement, Borkenstein, Crowther, Shumate, Ziel, and Zylman (1969) found those classes with the worst accident experience to be (in addition to intoxicated) the young or very old, the inexperienced, and those with less formal education.

In a more stringent attempt to sketch a hypothetical profile of those most at risk, Mulford (1961) discerned from a quota sample of the Iowa population that drinking drivers were disproportionately male, aged 20-40, disproportionately college educated, overrepresented in upper white-collar, skilled and unskilled occupations, and underrepresented in clerical, sales, semi-skilled and farming occupations. Gurnack (1986), in her sample of DUI offenders in two Wisconsin counties, found that offenders tended to be young, unmarried, and with high school educations.

Relationships

Age

Relative to younger persons, older people tend to be less willing to take risks. Conversely, social status is also largely a function of age, with statuses and roles that are dependent upon favorable reactions of others (Zimring and Hawkins 1973). Sigelman and Sigelman (1976) found that younger people are less likely to succumb to the threat of sanctions in altering their behavior. Consequently, one would expect older people to be more sensitive to the threat of informal social sanctions.

Socioeconomic Status (SES)

The issue of socioeconomic status and its relationship to sanction fear continues under debate. The social-psychological school of thought maintains that higher status people should be more sensitive to sanctions than lower class people (Geerken and Gove 1975; Zimring and Hawkins 1973; Tittle 1969). Built upon the basic assumptions of exchange theory, Zimring and Hawkins (1973) also contend that higher status people simply have more to lose if caught. Homans (1961), however, argues that middle status persons are the most sensitive to sanctions because they have something to lose, but lack sufficient status to risk anything.

Conventional Ties/Marital Status

In his theoretical work in the areas of delinquency and other deviant behavior, Hirschi (1969) argues that those who maintain

conventional ties to society are more sensitive to sanction threats simply because they have more to lose by negative sanctions. Thus, one could hypothesize that those most involved in social relationships will be more constrained and subsequently be more prone to perceiving informal sanctioning as severe. Those who are single, since they are exposed to fewer social bonds (in terms of marital status) should be less sensitive to informal sanctioning than those married offenders. Assuming this, the separated/divorced and widowed should fall between these two extremes (Tittle 1980, pp. 123-124). Similarly, the presence of a role of "example setter" should also prove to be a substantial force in the establishment of conventional ties. One might then expect the obligation of adolescent and pre/adolescent socialization to be a factor in the perception of the severity of informal social sanctions.

Conventional Ties/Social Integration

Some social theorists (Geerken and Gove 1975) maintain that more informal communication patterns enable smaller, more cohesive communities to radiate more of a deterrent effect. Since formal sanctions are largely held constant, the only feasible variation would appear to be that of informal sanctioning. Thus, those offenders maintaining these more conventional ties with their surrounding environment may be subject to more severe social sanctioning simply by virtue of the size of the community.

Community Cohesion/Geographic Mobility

People who change residences often should be less constrained by the possibility of negative reactions from others (informal sanctions) because they are less dependent upon a given reference group for positive response (Tittle 1980, p. 21). If this theory holds firm, one would expect that those more firmly integrated into a society will perceive the severity of informal sanctions to be greater than those who do not yet occupy a legitimate, functioning part of the status network.

Hypotheses

As previously stated, most recent research on sanctions has either not focused on DUI, has failed to methodologically incorporate an acceptable distinction between formal and informal sanctions, or has not theoretically extended the statistical correlations between sanctions and certain offender characteristics.

This being the case, the nature of this study is largely exploratory. However, several hypotheses can be explored: 1) persons of higher social status will tend to perceive informal sanctions as more severe than will those of lesser social status; 2) females will tend to perceive informal sanctions as more severe than males; 3) persons with socially-defined behavior-setting roles (i.e., parents, brothers, sisters, managerial persons, etc.) will perceive informal sanctions as more severe than will those under no such social obligations; 4) people maintaining close primary ties (i.e., marriage) will perceive informal sanctions as more severe than those not married (single, divorced, separated, widowed); 5) persons indicating longer present residences

will perceive informal sanctions as more severe; and 6) persons from smaller, more personal environments (rural vs. metro) will perceive informal sanctions as more severe.

Chapter III

METHODS AND PROCEDURES

This study is based on data collected from convicted DUI offenders in Cass County, North Dakota. Utilizing an epidemiological approach, the purpose of this study is to examine the relationships of perception of informal sanctioning of individual offenders based upon the biographical characteristics of gender, occupation, education, income, community cohesion (length of residence), and primary ties (marriage, family).

Data Collection

The data for this study was collected from convicted violators of alcohol-related driving offenses required to participate in the Cass County First Offender DUI Program. Held on an "on demand" basis, this 72-hour punitive/educative program is designed as a supplement to the mandatory minimum punishment prescribed by law.

To ensure maximum compliance in regard to questionnaire completion, the instrument was cooperatively designed with program staff and subsequently adopted as an official portion of their program curriculum. Thus, while participation was not mandatory to successful completion of the program, it may have been assumed as such by some participants. Nonetheless, the option of refusal was available and exercised by a

number of participants. All respondents were guaranteed absolute anonymity and encouraged to be honest in their responses. The average class size contained about fifteen participants.

Using a 6-page questionnaire designed, pre-tested, and re-designed specifically for this study and sample population, one hundred twenty two program participants were surveyed in eight sessions from September, 1987 through May, 1988. Of these, eighteen respondents refused to participate in the study, another ten were participating for offense(s) other than DUI, and two gave no response. Thus, an overall response rate of 85.2 percent was obtained, although the final usable sample size consisted of 96.

The questionnaire consisted of four basic sections: 1) a series of Likert-scaled attitudinal items reflecting the respondents' viewpoints on DUI in general; 2) a similar series of Likert-scaled attitudinal items designed to measure respondents' perceptions of informal sanctioning related to their individual DUI; 3) a series of items recording basic biographical characteristics; and 4) a series of scaled and open-ended items reflecting respondent's past drinking-driving behavior and the identification of significant others in regard to informal sanctioning.

The first section was provided as a gauge to reflect respondent's attitudes toward DUI, and was included primarily as a data-gathering source to be used as an educational tool by program counselors in future classes. It consisted of twenty-seven items rated on a 5-point Likert scale which ranged in content from respondent viewpoints regarding DUI apprehension, legal treatment of DUI, and perception of DUI offenders in general. Statements reflecting these areas were given, and respondents

were asked to indicate their level of agreement or disagreement with each. The response categories ranged from "strongly agree" to "strongly disagree", with the middle category being neutral.

The second group consisted of twenty-six items based upon a similar 5-point Likert scale which asked for respondents' views on their own individual DUI. From these, a 13-item scale measuring the construct of informal sanctioning was constructed. Items regarding the perceived feelings and actions of various significant others toward their DUI offense were formulated in statements which again asked respondents to indicate their level of agreement or disagreement. As before, respondents were given a choice of five possible responses: 1) strongly agree; 2) agree; 3) neutral; 4) disagree; and 5) strongly disagree.

Sample Population

The working sample size consisted of ninety-six respondents convicted of DUI, indicating they were tested and found to be legally impaired at the time of their apprehension (BAC .10 or above). This was the primary criterion for inclusion. Seven respondents were also cited for one additional alcohol-related traffic-offense such as minor possession or open container, with another seven indicating having been cited for at least two similar offenses. Table 2 indicates respondents' reported offense cross-tabulated by gender.

Table 2

Reported Offense by Gender

	DUI	APC	Minor in Possession	Open Container	Other	Total
Males	77	6	1	0	3	87
Females	14	0	0	0	0	14
Total	91	6	1	0	3	101

Frequency missing = 3

Participants ranged in age from 17 to 73 with the majority clustered in the 20-24 year-old age group. The mean age for the entire population was 29.10 years, with males and females averaging 29.05 and 29.77 years, respectively. Table 3 is a cross-tabulation of age-ranges by gender.

Table 3

Age of Respondents by Gender

	<20	21-25	26-30	31-35	36-40	41-50	51-60	61-70	71+	Total
Males	17	28	8	14	5	3	7	0	1	83
Females	2	1	4	4	1	1	0	0	0	14
Total	19	29	12	18	6	4	7	0	1	97

Frequency missing = 8

As the primary means of determining blood alcohol levels (BAC) of suspected impaired drivers, blood samples are taken at a local hospital and sent to the North Dakota State Toxicology Department located on the North Dakota State University campus. For the entire population, the average BAC was .1701, with males averaging .1673 and females averaging .1883. It should be noted, however, that because 12 of the male participants were not cited for DUI, their BAC levels were most probably less than the legally prescribed minimum of .10. Table 4 shows the cross-tabulation of BAC levels by gender.

Table 4

	<u>Blood Alcohol Content (BAC) by Gender</u>					
	<u>.05-.10</u>	<u>.11-.15</u>	<u>.16-.20</u>	<u>.21-.25</u>	<u>.25+</u>	<u>Total</u>
Males	4	28	31	15	1	79
Females	0	3	5	4	0	12
Total	4	31	36	19	1	91

Frequency missing = 13

Methods of Analysis

With a series of attitudinal items, respondents were asked to indicate their agreement/disagreement with statements identifying the severity of various informally-enforced sanctions following their conviction for DUI. Items depicting various informal channels such as family, colleagues, and friends were used to represent the construct of informal sanctions. A similar construct was initially proposed to

represent respondents' perceptions of formal sanctions; however, after considerable theoretical contemplation, such an effort was discouraged. Since formal sanctions are most often associated directly with legal sanctions (i.e., fines, loss of license, etc.), it was decided that severity of perceptions regarding these would be little more than a function of access to available resources (i.e., money, legal counsel, etc.).

As a preliminary tool designed to filter out and group together existing underlying relationships, an exploratory factor analysis technique was utilized on the 26 items dealing with sanctions. This technique maintains a common objective of representing a set of variables in terms of a smaller number of hypothetical variables (i.e., informal sanctions). In an exploratory application as used here, factor analysis is an expedient way of ascertaining the minimum number of hypothetical factors that can account for the observed covariation, and as a means of exploring the data for possible data reduction (Kim and Mueller 1986, p. 9).

After applying this technique to the 26 items dealing with individual sanctioning, a scale was constructed utilizing 13 of these items. SPSS-X (Statistical Package for the Social Sciences) was used for all analyses. Cronbach's alpha was used as a measure of reliability.

The independent variable of social status was constructed using a modification of Tittle's (1980) larger five-category additive index of status. Unskilled workers such as laborers were coded as one (1), skilled laborers such as welders were assigned a two (2), and professional/managerial persons were assigned a three (3).

The 12-item income scale was developed using similar values, beginning with a one (1) for the \$0-\$4,999 category and continuing upward to the \$50,000 or above category, which was assigned an eleven (11). Lastly, the variable of education was accordingly given similar values, ranging from a one (1) for having completed grades 1-8 and a five (5) for a college graduate or higher. From the consequent summation of these three variables, a scale ranging from 3-19 was constructed utilizing the three social status indicators of occupation, income, and education.

However, it should be cautioned that each respective status represents a combination of three characteristics. Thus, a low education could be more than offset by a larger than expected income (i.e., skilled laborers). Likewise, a larger educational value (5) could be offset by a smaller income than expected (i.e., university professors). As a precautionary measure to avoid any unusual distributions, these scale items formulated to represent social status were also analyzed separately to account for individual impacts.

Data Limitations

Obviously, no data collection technique is without limitations. A number of obvious limitations are evident within this data set, many of which are simply functions of survey research techniques and the sensitive nature of the research. While self-reported data has long been criticized as inaccurate or insufficient, most criticisms addressed are simply unavoidable under the circumstances and accepted for lack of a better technique.

Particularly when dealing with socially sensitive topical areas such as deviant behavior, respondents are often compelled to inaccurately report past behavior or present attitudes despite guaranteed anonymity. Undoubtedly, some socially-desirable response bias was involved. Also, when respondents were asked items concerning informal sanctions, it can be assumed that some respondents are simply not as perceptive to these forces as others, regardless of whether or not they (informal sanctions) indeed exist.

Another potential barrier to honest, uncontaminated responses is the fact that completion of the questionnaire was most likely viewed as a mandatory part of the program. While it was adopted by the program staff as an official portion of the program, mandatory completion of the instrument was not stressed. Nevertheless, this implied consent may have compelled some respondents to indicate either socially desirable answers or to simply complete the questionnaire as quickly as possible with little regard to question content.

Certainly, another issue is one of generalizability, or predictive validity. That is, whether or not the 104 respondents surveyed during the Cass County First Offender Programs constitute a representative cross-sample of DUI offenders. Obviously, as the program's name implies, the more extreme cases of DUI such as multiple offenders would most likely be channeled to either inpatient or outpatient chemical dependency treatment. Those offenders exhibiting extremely high BAC levels at the time of arrest are also likely to follow a similar fate, drastically underestimating the average BAC level of those within the sample.

Another potential biasing agent is one of police apprehension. One can assume those arrested for DUI constitute a random cross-sample who were simply unfortunate enough to be caught and arrested. Only if this assumption is correct can one further assume that this program cross-sample is similarly representative, that their attendance in the program is not the result of some underlying bias. This issue, while unexplored, is nevertheless a viable concern.

Going a step further, those convicted of DUI may be filtered out by means other than a police apprehension bias. For instance, DUI has proven to be such a "dependable" and consistent violation that specialized legal counsel now exists which does little more than defend DUI cases. Lawyers who specialize in beating DUIs in court attest to the perceived social seriousness of the offense. Not surprisingly, then, those with greatest access to the necessary resources (i.e., money, etc.) are most able to resort to legal means to avoid a DUI conviction. The distribution is thus greatly skewed away from higher income violators, a phenomenon characteristic of other criminal violations as well.

Lastly, a certain number of questionnaires (about 24 percent) were either not completed, contained numerous uncompleted items, or were completed by respondents participating in the program for violation(s) other than DUI. Because of this relatively small sample, the decision was made to include respondents' informal sanction scale score if 11 of the 13 items (85 percent) were completed. Missing scores were replaced by means scores tabulated from a summation of existing responses. It was felt this would be a more accurate representation of the sample population than would excluding them by a listwise deletion process.

Dependent Variable

Individual perceptions of informal sanctions is the dependent variable of this study. In developing this construct, it was attempted to adequately represent all primary domains of what constitutes informal sanctioning. Encompassing a considerably more dynamic and individual nature than formalized sanctions, items reflecting the reactions of various significant others such as family, co-workers, and friends were utilized. However, it should again be noted that recognition of informal sanctioning depends largely upon the perceptiveness of the respondent. That is, simply because a subject is unaware of the sanction does not necessarily imply that none exists.

In an attempt to uncover the underlying structure of correlation, factor analysis was performed as a means of partitioning out unrelated data. A principal components extraction technique with a varimax rotation was used, with a .40 factor loading established as a minimum criterion for item inclusion into the respective factors.

When all items dealing with individual reactions to DUI (Z1-Z26) were incorporated into a factor analysis technique, 10 factors were extracted. In a confirmatory mode, however, the factor analysis technique extracted four factors when applied only to certain scale items.

Factor one represents a collection of informally-enforced sanctioning items concerning their severity in relation to formal sanctions. The 5 items (see Appendix A) which comprise this first factor are: Z6, Z12, Z13, Z19, and Z22. For identification of these

particular items, please refer to Appendix A.

The second factor represents similar informally-enforced sanctioning items reflecting a negative perception of the offender by the public in general. Included in this factor are items: Z14, Z18, and Z24 (see Appendix A).

Factor three represents informally-enforced sanctions which reflect a negative perception within the offender's work environment. Included in this factor are items: Z10, Z11, and Z24.

The final factor represents family-oriented informal sanctions. This factor is comprised of items: Z1, Z6, and Z16. It should be noted, however, that while a general rule of thumb concerning factor analysis is to use only those factors which exhibit significant loadings on at least three variables, a similar rule states that, regardless of the number of significant variables, only those factors which can be reasonably interpreted should be utilized.

Factor Analysis Interpretation

While this research has attempted to identify the underlying factors, the factorial complexity of the final two variables must be addressed. The factorial complexity refers to the number of factors having (significant) loadings on a given variable (Kim and Mueller 1986, p. 24). In this case, only variables within the first two factors load on a single common factor, giving them a factorial complexity of one. The third factor loads upon two unique variables (Z10 and Z11), but also on Z24. Likewise, factor four exhibits similar loadings on Z1 and Z16 while sharing a significant loading with Z6. In each case, the

secondary factor loading is lower than it's initial loading.

In some instances, the lower of the two (or multiple) factor loadings are simply dropped from the analysis. With the last two factors maintaining the methodologically prescribed minimum of variables comprising the factor, such an exclusion would most certainly prove detrimental to complete representation of the construct of informal sanctions. On the other hand, the consistency with which the variables group within the last three factors should be more closely examined.

Within factor two, the three items identified concern the embarrassment of getting caught, the fear of having one's name appear in the local newspaper, and the fear of being labeled an alcoholic. In each case, the item reflects the offender's fear of negative public reaction. These three items, while being exclusive to factor two, also appear to have the common denominator of fear of public exposure.

Factor three is less concrete. The first two items concern the offenders' relationships at work and his/her obligation to setting a good example at home/work. These have been interpreted to be one of the established primary ties which channel informal sanctions to the offender (co-workers, colleagues, etc). As much as they represent a certain primary tie, however, they also represent a certain reaction by the offender concerning that social tie: that of a perceived loss of status among previously-established subordinates in work and/or family settings. Looking to the third item which loads significantly on factor three sheds light on this interpretation. Item Z24 deals with the perception of people labeling the offender a drunk or an alcoholic. Since the origin of the effect is unspecified, it must be assumed that this item relies upon the perceived loss of status among significant

others in general. With this item interpreted as such, the third factor seems adequately interpretable.

Factor four is similar in nature. While the first two items which load significantly are related in nature, the third item is of a more generic (but explainable) content. Items Z1 and Z16 entail the perceived reaction of the offender's family with regard to his/her DUI. Item Z6 simply states the perceived reaction of "others" to the individual's offense. If this designation of "others" can be assumed to encompass the foremost primary tie of the family, then factor four can also be utilized as being interpretable.

Although the possibility of collapsing the informal sanctioning scale into groups of equal intervals was contemplated, an examination of the distribution of the data revealed a strong clustering effect near the midway point, with those numbers falling off drastically at the upper extreme of the scale. At the risk of deleting those few scores which occupy the high end of the scaling distribution, the decision was made to retain the scale scores as continuous interval-level variables.

Independent Variables

Social Status

The construct of social status is one of the primary independent variables in this study. Using Tittle's (1980) construct of social status, the variables of occupation, education, and income were incorporated into a single variable. While each of these three variables were combined as unweighted measures, analysis was also conducted using each individual variable in its original state.

Occupation

The variable of occupation initially consisted of assigning an individual code to every discernible occupation listed. For the purpose of data reduction and clarification, the occupations were collapsed into three distinct categories: 1) unskilled labor, which consists of occupations requiring no formalized training; 2) skilled labor, which consists of occupations requiring some formalized training, apprenticeship, or completion of a degree; and 3) professional/managerial, which consists of upper-level occupations such as supervisor, foreman, or owner. The duties prescribed within this latter category involve the direct supervision of subordinates.

Income

Income is defined within an 11-level Likert scale beginning at \$0-\$4,999 and increasing in approximately \$5,000 intervals (see Appendix A). It should be noted that this is net income, or the total spendable income available after taxes. Income is collapsed into the five categories of: 1) \$0-14,999; 2) \$15-24,999 3) \$25-\$34,999 4) \$35-\$44,999 and 5) \$45,000 and over. Mean breakdowns and cross-tabulations are performed using these categorical designations, with the original variable coded from 1 to 11 used in the summated scale of social status.

Education

Education is a 5-level Likert scale beginning with completion of grade 1 through 8 and ending with college graduate or more (see Appendix A). Cross-tabulation and mean breakdowns are utilized to plot any

observable trends, with education also used to formulate the variable of social status.

Gender

The gender of the respondent is a nominally-measured variable coded simply 1 for males and 2 for females (see Appendix A). Because of its nominal nature, regression analysis utilizing dummy or effect coding is the only alternative to incorporating this variable into a regression equation. A more appropriate technique would simply be a difference of means test across sexes.

Length of Residence

Length of residence in a community is utilized as a measure of primary ties to the community. Initially, respondents were asked to indicate how long they had lived within their current community of residence (see Appendix A). To aid in the analysis, this variable was computed into total months rather than years, due to the fact that not all respondents had lived at their current address longer than one year. Length of residency was also collapsed into the categories of: 1) less than 12 months; 2) 12-60 months; 3) 61-120 months; 4) 121-240 months; 5) 241-360 months; 6) 361-480 months; and 7) 481-600 months. No respondent reported living within their current community for longer than 50 years (600 months).

Marital Status

Marital status was reported as: 1) single, never married; 2) married 3) divorced; 4) separated; or 5) widowed (see Appendix A).

Since measurement of this variable is restricted to an ordinal level, it will be used as an independent criterion to breakdown informal sanctioning scale scores.

Size of Current Community of Residence

Using a six-tiered designation of community size beginning with farm and progressing through metropolitan (100,000+), respondent's community of residence size will undergo an univariate analysis similar to the previous ordinally-measured variables (see Appendix A).

Preview of Findings

With the review and description of the previous variables to be utilized in the analysis, the following chapter will summarize the findings as they relate to the previously specified hypotheses. The final chapter will relate the future impacts of these findings upon related research as well as potential policy implications.

Chapter IV

FINDINGS

The construct of perceived severity of informal sanctions was created as the dependent variable of this study. Comprised of 13 Likert-type items which asked convicted DUI offenders how they perceived reactions of others toward them, a scale was developed which approximates this construct.

Having selected items thought to be representative of a shared construct (informal sanctioning), a confirmatory factor analysis was run which yielded four factors identified as 1) informal versus formal sanctions; 2) informal sanctions transmitted via the public; 3) informal sanctions transmitted via co-workers/colleagues; and 4) informal sanctions channeled via respondent's immediate family.

To test these 13 items as they contribute to the overall reliability of the scale, Cronbach's alpha was used.¹ Using the reliability function of SPSS-X (SPSS 1986), an alpha of .8123 was obtained (See Appendix B). Although it is difficult to specify what level is acceptable in all situations, it is believed that reliabilities should not be below .80 for widely used scales (Carmines and Zeller 1987, p. 51). In addition, in most situations, alpha provides a conservative

¹ Defined as a measure of internal consistency, Cronbach's alpha is calculated using the mean interitem correlation divided by the number of scale items (Carmines and Zeller 1979, p. 44).

estimate of a measure's reliability (Carmines and Zeller 1987, p. 45).

It would seem, therefore, that the reliability of this newly-constructed scale is such that each of the 13 items appear to be consistently measuring the same construct.

As an exploratory technique for observing the strength and diversity of the relationships among the variables of interest, a Pearson's R measure of association was performed using the Pearson correlation command of SPSS-X.² This statistic is useful in both an exploratory and confirmatory mode of data analysis, although the correlation coefficients are themselves devoid of any causal interpretations.

For binomial variables, the T-test procedure was used as a difference of means test for scale scores.³ In cases where variables under scrutinization consisted of more than two groups, the oneway procedure was used as a difference of means test for multiple groups.⁴ The Scheffe's Test statistic utilizing an alpha of .10 was prescribed to aid in the comparison of significance levels among several groups.⁵

² The Pearson correlation command of SPSS-X produces matrices of Pearson product-moment correlations with significance levels and number of cases (SPSS 1986, p. 639).

³ The T-test procedure compares the sample means (informal sanction scale scores) by calculating Student's t and the test of significance of the difference between means (SPSS 1986, p. 443).

⁴ The oneway procedure produces a oneway analysis of variance for an interval level variable (informal sanction scale scores) by one independent variable (SPSS 1986, p. 465).

⁵ Although social scientists conventionally set alpha at .05 or, somewhat less frequently, .10 or .01, the researcher has the responsibility of selecting an alpha level that seems most reasonable in terms of the goals of the research project (Healey 1984, p. 143).

Due to the exploratory nature and the virtual unestablishment of the independent construct (informal sanctions) within the discipline, an alpha of .10 was prescribed.

A multiple regression technique was considered as a means of transforming previously established statistical relationships into a theoretically-driven causal model. In such a model, the attempt would be made to determine how induced variations in the independent variable lead to variations in the dependent variable (perceived severity of informal sanctions). Stated differently, the goal is to determine how, and to what extent, does variability in the dependent variable depend upon manipulations of the independent variable (Pedhazur 1982, p. 15).

However, the decision was made to avoid a regression analysis based on several statistical and theoretical considerations. First and foremost, the levels of measurement of the relevant independent variables (nominal and ordinal) do not justly suit themselves to a regression analysis. Admittedly, while the treatment of ordinal-level variables as interval within regression analyses is not uncommon, subsequent interpretation of the beta coefficients is characterized as cautious at best. Additionally, although the binomial variable of gender would lend itself to a regression analysis via dummy or effect coding, such an analysis would yield little more than a difference of means test.

Secondly, despite the a priori statement of hypotheses, the nature of this study is more exploratory than confirmatory. The primary relevance of this study will be the future hypotheses-generating effects of the findings. As such, the relationships between the variables predicted in Chapter Two are of more a correlational than a causal

order. Any interaction effects or causal modeling should be undertaken in similar studies of greater scope, implementing a more defined measure of informal sanctions as well as more intricate measurement techniques.

Thirdly, and perhaps secondarily, the usage of exploratory techniques during the preliminary analysis stage indicated little justification to continuing on to more intricate statistical methods. Had the correlations and the difference of means tests indicated highly significant findings, progression to a causal technique would probably have been warranted. Based on these preliminary findings, however, it was determined that no need for multivariate analysis existed.

Social Status Relationships

The previously stated hypothesis concerning social status and informal sanctions suggests that persons of higher social status will tend to perceive informally-enforced sanctions as more severe than will persons of lower statuses. Using a derivation of Tittle's (1980) construct of social status, the variables of education, income, and occupation were formulated to comprise an additive summarization of status. For this transformation, the variable of occupation was first collapsed into the three categories of: 1) unskilled labor; 2) skilled labor; and 3) professional/managerial.

The social status variable encompassed a possible range of scores from 3 to 19. A frequency distribution of the actual scores showed a normal distribution with a range from 3 to 16, with the higher values representing a higher social status. To render the data in a usable form to perform a oneway analysis of variance, social status was

collapsed into three categories: 1) Low social status = values from 3 to 6 (N=27); 2) Medium social status = values from 7 to 10 (N=50); and 3) High social status = values from 11 to 16 (N=24).

Preliminary analysis using the Pearson's R correlation coefficient indicates a virtually non-existent relationship ($R = -.0004$, $P = .498$) between the three constructed status groups and each respondent's scale score measuring perceived severity of informal sanctions. Interestingly, the correlation of respondent's social status as a contiguous variable (prior to formation of the three groups) is somewhat stronger, although still highly non-significant ($R = -.0643$, $P = .261$).

The oneway procedure comparing the mean values of informal sanction scale scores across social status groups (See Table 5) yielded an equally non-significant finding ($F = .6192$, $P = .5405$), which confirms the apparent accuracy of the slight correlation. The breakdown of mean scale scores by social status group yielded a total variance range of less than 1.8.

Table 5

Oneway Analysis of Variance of Social Status and
Perception of Severity of Informal Sanctions

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	70.0984	35.0492	.6192	.5405
Within	98	5547.2680	56.6048		
Total	100	5617.3663			

Social Status Elaborated

A primary concern indicated earlier was the threat to validity the unweighted measures of income, education, and occupation might potentially pose. That is, how a disproportionately high education level combined with a high occupational status might be cancelled out by a lower than expected income (i.e., university professors). Because the construct of social status is in and of itself highly dynamic and contested, "appropriate" weightings would likely be a matter of debate has they in fact been applied to adjust the respective variable values. At any rate, despite their undisputed statistical insignificance as a collective construct, the individual variables comprising social status may constitute formidable factors in identifying the variance of scale scores.

Income

Along with occupation and education, the variable of income was incorporated into the construct of social status. The Pearson's R correlation coefficient, however, indicates not only an insignificant relationship between respondents' income levels and perception of informal sanctions ($R = -.0702$, $P = .252$), but a negative relationship as well.

Initially, the income variable was coded from 1 to 11, with each category ascending in approximately \$5,000 increments. Because persons in the upper-level income brackets are largely underrepresented in the DUI statistics, income was collapsed into four groups to partially

alleviate the small numbers which would occupy these higher income categories. The four groups consist of: 1) \$14,999 and less (N = 44); 2) \$15,000-29,999 (N = 33); 3) \$30,000-39,999 (N = 11); and 4) \$40,000 and greater (N = 5).

As illustrated by Table 6, the oneway analysis of variance indicates a statistically insignificant finding ($F = 2.13$, $P = .1019$), although barely so. While this ratio is insignificant at a confidence level prescribed by most in the social sciences (.05), such a finding should be sufficient to warrant future exploration into the relationship. This researcher cautiously interprets the strength of this relationship to be one of moderate intensity at a conservatively acceptable confidence level. Nonetheless, the primary crux of this finding should be the realization that enough of a relationship appears to exist to warrant further exploration into the phenomenon.

Table 6

Oneway Analysis of Variance of Income and
Perception of Severity of Informal Sanctions

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Squares</u>	<u>F Ratio</u>	<u>F Probability</u>
Between	3	311.5940	103.8647	2.1311	.1019
Within	89	4337.6318	48.7374		
Total	92	4649.2258			

Occupation

In representing occupational status, the variable representing respondent's occupation was collapsed into categories based upon job-related training requirements and supervisory capacity. The following

categories consisted of: 1.) unskilled labor (N = 29); 2.) skilled labor (N = 27); and 3.) professional\managerial (N = 15).

As an preliminary exploratory technique, the Pearson's R correlation coefficient indicated only a moderate loading (P = .2672), but with a highly respectable one-tailed significance level (P = .012). Interestingly, occupation appears to have little relationship with income (R = -.0600, P = .315), indicating that many less socially-prestigious jobs result in higher wages than expected and vice versa, or that those household incomes which are unexpectedly high in relation to occupational status are the result of second incomes.

Utilizing these three occupational status groups, a oneway analysis of variance was performed with the informal sanction scale serving as the dependent variable (See Table 7). The oneway procedure calculated an F value of 2.61 at an .08 level of significance. In addition, the Scheffe's Test procedure recognized a significant difference (Alpha = .10) in group means between Group 1 (unskilled laborers) and Group 3 (professional/managerial workers). As hypothesized, the group means were lowest (indicating a low perceived severity of informal sanctions) among those lowest in occupational status and highest (indicating a high perceived severity of informal sanctions) among those highest in occupational status.

Table 7

Oneway Analysis of Variance of Occupational Status and
Perception of Severity of Informal Sanctions

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	2	271.4498	135.7249	2.6149	.0805
Within	68	3529.5361	51.9049		
Total	70	3800.9859			

Education

Since the education variable consists of only 5 categories, collapsing it into broader categories would be of little benefit. In examination of education's correlational relationship to occupation and income, both coefficients are of low intensity and high probability levels, ($R = .0312$, $P = .400$) and ($R = .0684$, $P = .257$), respectively. Education, it appears, is a poor predictor of a respondent's occupational status group or his/her household income level.

A oneway analysis of variance was also calculated using the five ranges of respondent's educational level as the independent variable and the informal sanction scale as the dependent variable (See Table 8). Not surprisingly, the test resulted in a small F ratio with an equally low level of significance ($F = .8733$, $P = .4832$). Despite the virtual lack of variance among mean scale scores for the five educational groups, the average for those with less than an 8th grade education is considerably higher than those possessing a college degree. Of course, the number of respondents falling into both of these educational categories is sufficiently small to render these variations little more

than statistical aberrations. Thus, educational attainment, in and of itself as well as in contribution to the social status construct, appears to be an insignificant variable in the perceived severity of informal sanctions related to DUI.

Table 8

Oneway Analysis of Variance of Educational Level and
Perception of Severity of Informal Sanctions

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Squares</u>	<u>F Ratio</u>	<u>F Probability</u>
Between	4	177.0891	44.2723	.8733	.4832
Within	92	4664.0037	50.6957		
Total	96	4841.0928			

Gender

The relationship between gender and perceived severity of informal DUI-related sanctions is hypothesized to be one as it relates directly to the notion of deviant behavior. That is, while deviant behavior is ideally consistently sanctioned by various social forces, it is more so for certain members of society. Various studies have established sentencing and fine discrepancies (formal sanctions) based along racial, ethnic, and gender lines. If it is true that, in certain instances, females are more severely formally sanctioned than are males, this variation should be expected to prevalent in the informal sanctioning process as well.

The Pearson's R correlation coefficient for sex and perceived severity of informal sanctions is less than moderate but statistically

significant ($R = .2090$, $P = .018$). When incorporated into a T-Test method of analyzing mean differences between dichotomous groups, a Student's t value of -1.64 at a two-tailed probability level of $.121$ was obtained using separate variance estimates (See Table 9). Although the pooled variance estimates are considerably more respectable ($t = -2.11$, $P = .037$), they are an inaccurate indicator due to the large discrepancy in the population variance caused by the difference in respective sample sizes. As stated by Healey (1984, p. 160), the assumption of equal variance in the population can be considered justified as long as sample sizes are approximately equal. Given this assumption that both populations are normal, the additional assumptions of equal means and equal standard deviations amount to postulating that the two populations are equal (Blalock 1979, p. 227).

Since the two sample variances will ordinarily be based on different numbers of cases, an estimate of the common variance can be obtained by taking a weighted average of the sample variances, being careful to divide by the proper degrees of freedom in order to obtain an unbiased estimated (Blalock 1979, p. 228-229).

However, if normal populations are assumed, the normal computation of Student's t scores is somewhat questionable in instances where the sample sizes are not too large (approximately less than 50) or where the sample sizes are very different. Concerning this problem, Blalock (1979, p. 231) recognizes that the difficulty in computation of Student's t scores between samples of different sizes arises in proper selection of the degrees of freedom. This is true because if the respective population variances do not differ greatly, the relative sizes of the two fractions within the calculation will be determined

primarily by their denominators (Blalock 1979).

When sample sizes are such that it is impossible to assume that the two populations have the same standard deviations, it is also impossible to introduce an accurate value to the common population variance and thus form a pooled variance estimate. In this specific case of males and females, the problem is two-fold in that the population for females is relatively low ($N = 14$) and the difference between the two samples is relatively high.

To alleviate this dilemma, Blalock (1979) offers an alternative formula for computing t scores, although there is nothing in this modified procedure which requires that the standard deviations be unequal. If the respective standard deviations are close to being equal, this method will simply be less efficient because of its approximations of the degrees of freedom.

However, despite this identifiable distinction, Blalock (1979, p. 231) also states that the two methods will usually yield similar results if the standard deviations are in fact equal, since both sample standard deviations will ordinarily be good estimates of the common population variance.

Table 9

Student's t Score for Males and Females
of Perception of Severity of Informal Sanctions

<u>Group</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error</u>
Males	86	33.2791	6.950	0.749
Females	14	37.7857	9.870	2.638

Variance Estimates			
	<u>T Value</u>	<u>Degrees of Freedom</u>	<u>2-Tail Probability</u>
Pooled Variance Est.	-2.11	98	0.037
Separate Variance Est.	-1.64	15.17	0.121

One solution to this problem is to weight accordingly each female respondent to decrease the standard deviation by increasing the sample size. However, although this method would decrease the population variance between males and females without altering their respective population mean, such a technique is discouraged by some statisticians because it artificially inflates sample sizes through no other discourse other than researcher manipulations.

Since it has been hypothesized that females will rate significantly higher on their respective scale scores than will males, a directional hypothesis has been stated a priori. Thus, the probability for a one-tailed test is raised to a slightly more confident interval (.0555). One's gender, in fact, appears to be a moderately significant factor in the perception of severity of informal sanctions. And, as hypothesized,

females are more likely to perceive this severity as greater than are males.

Primary Ties

The basic notion of primary ties and their effect on enforcing conformist behavior comes from the work on delinquency of social control theorists, primarily Travis Hirschi. The underlying premise of this theory suggests that an individual's bond to society is the primary factor affecting conformist and deviant behavior (Hirschi, 1969). With this being the case, one would expect those more socially integrated to be more susceptible to perceiving informal sanctioning as severe than would those lacking the primary social bonds imperative to the enforcement of normative behavior.

To examine the validity of this theoretical assumption, four different but related variables will be utilized in the analyses. Firstly, the social domain of the family will be addressed, using the marital status and example-setting roles of the DUI offenders. This latter variable asks respondents whether or not they share their current residence with anyone under the age of 18.

The other analysis utilizes the domain of ties to the community. For this, length of residence (in months) and size of community or residence are analyzed separately. Integration into a community is hypothesized to be a formidable factor in the enforcement of conformist behavior, and communities smaller in size would be expected to yield a more static, cohesive social integration of the offender into the immediate social sub-structure.

Marital Status

As a variable, marital status is comprised of a five-category response: 1) single, never married (N = 57); 2) married (N = 26); 3) separated (N = 3); 4) divorced (N = 13); and 5) widowed (N = 1). As a primary tie establishing one to the enforcement of societal norms through a higher level of social integration, the bonding effects of marriage and family should impact considerably the perception of severity of informal sanctions.

The Pearson's R statistic indicates only a weak correlation between a respondent's marital status and their perception of severity of informal sanctions ($R = .0854$, $P = .198$). As one might then expect, a oneway analysis of variance calculated a uncontestedly low F value of .6211 with an F probability of .6486 (See Table 10). One's marital status, as it represents an anchor for social bonding, has no statistically significant distinguishing feature on the severity of perceptions of informal sanctions.

Table 10

Oneway Analysis of Variance of Marital Status and
Perception of Severity of Informal Sanctions

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	4	142.8063	35.7016	.6211	.6486
Within	95	5461.0337	57.4846		
Total	99	5603.8400			

However, although it exists without statistical significance, one curious deviation in the mean scores across marital status groups is apparent (See Table 11). The highest mean score (36.69) is among those respondents reporting a marital status of divorced, indicating that detection of their offense may result in some unknown but apparently serious perceived informal sanction. Further analysis reveals that when asked, "Who was the first person you worried about finding out about your DUI?", 30.0 percent of the divorced group indicated their children while 20.0 percent reported their ex-spouse. Nonetheless, it appears as if simple marital status does not constitute any consistent statistical trend as it relates to perception of severity of informal sanctioning.

Table 11

Mean Breakdown of Perception of Severity of
Informal Sanctions by Marital Status

<u>Group</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error</u>
Single	57	33.9825	7.0140	.9290
Married	26	33.2308	7.4313	1.4574
Separated	3	32.3333	5.6862	3.2830
Divorced	13	36.6923	10.2501	2.8429
Widowed	1	29.0000		

Example-Setting Roles

A considerable social responsibility in the role of parents and older family members like is the influence exerted through example-setting. Particularly children at an age where societal development and critical initiation to norms takes place, a primary family figure may

feel a sense of failure or humiliation of his/her role due to their conviction for DUI. However, depending on the age of the children, knowledge and/or realization of the consequences of DUI may not be readily recognized. Nonetheless, it can be argued that the financial sacrifice made through the fine as well as the loss of license could result in a perceived careless sacrifice of resources intended to benefit the entire family, children included.

Respondents were asked, "How many family members (brothers, sisters, children etc.) under the age of 18 currently live with you?". To aid in the analysis and to gain a more representative number of respondents within each category, the number of family members indicated was simply collapsed into the following two categories: 1.) children under 18 currently living with you (N = 32); and 2.) no children under 18 currently living with you (N = 69).

The Pearson's R coefficient reveals little correlational relationship between the two groups coded above and the perceived severity of informal sanctioning ($R = -.0137$, $P = .447$). Furthermore, the T-Test procedure also indicated a non-significant finding with a calculated t value of $-.90$ with $\text{Alpha} = .165$ (See Table 12). However, those indicating the presence of family members under the age of 18 living within their residence did as a group tend to score higher in terms of perceived severity of informal sanctions, 34.96 compared to 33.52 for those with no such younger family members.

Table 12

Student's t Test of Respondents Living With
Children Under 18 for Perception
of Severity of Informal Sanctions

<u>Group</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error</u>
Yes	32	33.5286	6.792	0.812
No	70	34.9688	8.844	1.563

Variance Estimates

	<u>T Value</u>	<u>Degrees of Freedom</u>	<u>2-Tail Probability</u>
Pooled Variance Est.	-0.90	100	0.370
Separate Variance Est.	-0.82	48.39	0.418

Although the presence and absence of this variable has been shown to be of little statistical significance regarding the informal sanction scores, further analysis into the matter may prove more revealing in terms of theoretical foresight. Once again when asked, "Who was the first person you worried about finding out about your DUI?", 44.4 percent of those having no family members currently residing with them indicated some immediate family member, with 7.9 percent specifying their spouse.

Those with at least one family member under the age of 18 currently residing with them also placed their immediate family at the top of their responses of those most fearful of finding out about their DUI. Of these, a slightly higher percentage (48.2%) indicated an immediate family member, with almost twice as large a proportion (13.8) directly

specifying their spouse. While difficult to establish any statistical significance in these percentages given the small sample size and varied responses, the seemingly substantial increase in the porportion of respondents living in the presence of adolescent family members who specified their spouse as the first person they feared finding out about their DUI is an interesting segmentation.

Marital Status/Example-Setting Roles

Even though the presence of two individual variables may appear to have little interaction with the dependent variable under scrutinization, the combination of the effects into a single variable sometimes yields different results. As indicated in the previous two analyses, marital status was hypothesized to be a significant factor in the perception of severity of informal sanctions. Relatedly, immediate family members residing within the respndent's current household was used to represent the presence of a socially-defined "example-setting" role of the respondent.

A variable was created which combined the presence/absence of these two characterictics. Firstly, those respondents who were not married (single, separated, divorced, widowed) were assigned a single value, with those indicating a married status left as a single value. The variable used in the previous analysis, presence/absence of immediate family members under the age if 18, was not altered.

The new variable was segmented into four groups: 1) those not married with no immediate family members under the age of 18 currently residing within their household (N = 47); 2) those not married but indicating at least one immediate family member under the age of 18

currently residing within their household (N = 11); 3) those married with no immediate family members under the age of 18 currently residing within their household (N = 12); and 4) those married with at least one immediate family member under the age of 18 currently residing within their household (N = 14).

A preliminary mean breakdown of scale scores among the four groups indicates little variation save Group 3, those who are married but indicate no presence of family members under 18 (See Table 13). Surprisingly, however, their mean score of 31.58 is noticeably lower than the mean (34.03) of their counterparts in Group 1, (those not married and without immediate family members under 18 living within their household). Of course, when contrasted to Group 4 on the basis of their marital status, the difference in means scores is in a direction we would theoretically expect. That is, that the presence of immediate family members under the age of 18 appears to have a noticeable affect on the perception of severity of informal sanctions, hypothesized in this study to be sanctioning due primarily to a failed role of an example-setter within the family context. In support of this hypothesis is the group frequencies of all DUI offenders within the sample outlined in the above paragraph, with 56.4 percent of all respondents occupying Group 1 status (unmarried and without immediate family under 18 currently residing within the same household).

Table 13

Mean Breakdown of Perception of Severity of
Informal Sanctions by
Marital Status/Example-Setting Role

Group	N	Mean	Standard Deviation
Group 1	56	34.0357	6.7608
Group 2	18	35.2222	9.9028
Group 3	12	31.5833	7.1663
Group 4	14	34.6429	7.6219

Conventional Ties/Social Integration

Length of Residence

How well a person is integrated into the community's social structure depends upon many pertinent factors, many of which are less societal characteristics as social-psychological characteristics of the individual. While length of residence within a certain community environment is not necessarily synonymous with social bonding or cohesion, it makes sense theoretically that longer residences should play a distinguishing factor in terms of perceived severity of informal sanctions. The reverse is also true, that those having shorter residency periods have not had adequate time to integrate themselves into the existing social structure, complete with the informal sanctioning channels established via the medium of various significant others.

The variable which measured length of residency of respondent's current place of residence was an open ended question recorded in either

years or months. This latter category was added due to the expected number of college students who reside within the immediate geographic sample environment, many of which are not year-around residents. A variable was then computed which transformed the raw scores into a total of months, which ranged from 2 months to 50 years (600 months).

In examining the correlations of length of residency of the respondent's current community of residence, a moderate negative relationship ($R = -.2644$, $P = .004$) exists between length of residence and whether or not anyone in the respondent's immediate family had ever been convicted of a DUI. In this case, those having a family member previously convicted were coded with a 1, while those not having a family member convicted were assigned a 2. Thus, it appears that those respondents with other DUI convictions within their immediate families exhibit slightly shorter lengths of residences than do families devoid of previous DUI convictions. Also, not surprisingly, length of residence maintains a substantial correlation with respondent's age ($R = .2204$, $P = .015$).

For clearer interpretive analysis, the length of residency variable was again transformed, this time collapsing it into the following categories: 1) less than 1 year ($N = 8$); 2) 1-5 years ($N = 24$); 3) 5-10 years ($N = 9$); 4) 10-20 years ($N = 33$); 5) 20-30 years ($N = 14$); 6) 30-40 years ($N = 4$); and 7) 40-50 years ($N = 3$).

A oneway analysis of variance using the Scheffe's test procedure was conducted, with no two groups appearing statistically significant at the .10 confidence level. The oneway yielded a F value of 1.22 and an probability level of .3034, a highly nonsignificant finding (See Table

14). In fact, in an attempt to uncover some underlying trends in the face of the insignificant difference of means tests, a breakdown of scale means was conducted by length of residency groups.

Table 14

Oneway Analysis of Variance of Length of Residence and
Perception of Severity of Informal Sanctions

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between	6	404.4529	67.4088	1.2164	.3057
Within	87	4821.2067	55.4162		
Total	93	5225.6596			

However, little light is shed upon the possible existence of any underlying trend in the mean score distributions. Aside from those respondents who had lived in their current community of residence for less than 1 year (Group 1), all other averages varied quite little over categories (See Table 15). While the overall population maintained a mean score of 33.98, Group 1 was substantially higher, at 40.42. While the hypothesis concerning this relationship would expect a significant difference, it would expect it to be in the opposite direction (lower rather than higher). According to these findings (although they are not statistically significant), those respondents having resided within their present community are perceive the informal sanctions related to their DUI as more severe than those who have lived in their respective communities longer. This could indicate some degree of social-vulnerability in the early stages of the community-integration process, although the data presented here is not adequate to support such a theoretical explanation.

Table 15

Mean Breakdown of Perception of Severity of
Informal Sanctions by Length of Residence

Group	N	Mean	Standard Deviation	Standard Error
< 1 year	7	40.4286	11.2969	4.2698
1 - 5 yrs.	24	33.9167	7.8735	1.6072
5 - 10 yrs.	9	31.6667	7.3314	2.4438
10 - 20 yrs.	33	33.4848	6.9242	1.2054
20 - 30 yrs.	14	33.0000	6.9614	1.8605
30 - 40 yrs.	4	31.2500	2.7538	1.3769
40 - 50 yrs.	3	31.3333	2.5166	1.4530

Size of Current Community of Residence

The relationship between the size of respondent's community of residence and their perception of severity of informal sanctions states that, because of the more anonymous and impersonal setting of highly populated environments, respondents living within these areas will perceive their DUI-related informal sanctions as less severe than those residing in smaller more cohesive communities. The variable recording respondent's respective community of residence size is comprised of the following categories: 1.) farm (N = 6); 2.) rural (< 2,500) (N = 9); 3.) small town (2,500-10,000) (N = 7); 4.) town (10,000-25,000) (N = 7); 5.) city (25,000-100,000) (N = 62); and 6.) metropolitan (100,000+) (N = 8).

The Pearson's R correlation coefficient reveals almost no measurable association between the size of respondent's community of

residence and their perceived severity of informal sanctions ($R = -.0059$, $P = .477$). Further analysis reveals some noticeable differences, although the mean scores fluctuate in a way which is not totally explainable. While our hypothesis purports that those in metropolitan areas will perceive the severity of informal sanctions as lesser than more "personal" environments, it also assumes that such a relationship is gradated consistently and accordingly as size of community of residence changes. Judging from the mean values outlined in Table 16, while the former statement appears to be partly justified, any progressive coherence between the two is highly reluctant. To further substantiate the lack of statistical significance, a oneway analysis of variance reveals an F value of 1.2258 at a probability level of .3034 (See Table 17). Thus, it seems the hypothesis which states that community of origin size is a significantly discriminating variable in the perception of severity of informal DUI-related sanctioning is not supported by the data.

Table 16

Mean Breakdown of Perception of Severity of
Informal Sanctions by Size of Community

Group	N	Mean	Standard Deviation	Standard Error
farm	6	33.6667	5.5377	2.2608
rural	9	35.8889	7.8652	2.6217
small town	7	29.8571	7.2440	2.7380
town	7	33.2857	4.4615	1.6863
city	61	34.9672	7.8123	1.0003
metro	8	29.8750	8.4251	2.9787

Table 17

Oneway Analysis of Variance of Size of Community of Residence
and Perception of Severity of Informal Sanctions

<u>Source</u>	<u>Degrees of Freedom</u>	<u>Sum of Squares</u>	<u>Mean Squares</u>	<u>F Ratio</u>	<u>F Probability</u>
Between	5	349.1826	69.8365	1.2258	.3034
Within	92	5241.3174	56.9708		
Total	97	5590.5000			

Chapter V

SUMMARY AND CONCLUSIONS

This exploratory study was undertaken to investigate the effects of certain personal and social characteristics on the perception of severity of informal sanctions related to DUI. The basic finding from this research suggests that various elements appear to play a consistent and theoretically specified role in the informal sanctioning of DUI offenders, although in most cases the differences are statistically significant at only a conservative magnitude.

Research into the perceived sanction fear of various formalized punishments suggest that certainty, severity, and celerity play a fundamental role in the deterrent function of sanctions. The role of the informal sanction, however, is still unknown. Nonetheless, speculative research might suggest that informal sanctions, like formalized ones, are not applied to each individual offender at an equal intensity or severity. Oftentimes, this discrepancy is simply the result of a lack of appropriate significant others from which the most severe informal sanctions usually originate. At other times, the socially-affixed "antennae" of the offender are not adequately perceptive to recognize these negative social control forces, despite their uncontested existence by others in the informal collective.

One characteristic which seems to radiate a measurable affects on the severity of informal sanction perceptions is the gender of the

offender. An argument can be made that the offense of drinking-and-driving, while maintaining a questionable status regarding its inclusion into the realm of "bonafide" deviant behavior, is nonetheless considered largely a male offense. That is, even those who partake in deviant behavior are themselves subject to informal norms governing the expected type of offender for that particular behavior. Thus, females as a whole do not constitute the overall societal perception of one who is arrested for driving while impaired. For this reason, informal sanctioning toward females was shown to be noticeably higher in terms of perceived severity.

Occupational status was also shown to constitute a moderately significant factor in the perceived severity of DUI-related informal sanctions. Similar in nature to the relationship with respondent's gender addressed earlier, those respondents who commanded more socially-prestigious positions in the category of professional/managerial indicated feeling the pressure of informal sanctions more than did those workers employed in the skilled or unskilled labor fields. Although a disproportionately low number of offenders are situated within this highest occupational status group, perhaps a more epidemiological approach could be taken to discern from offender characteristics exactly why certain social groups are consistently underrepresented in DUI arrest statistics.

The lack of significant statistical findings when looking at the constructed variable of social status is not surprising, as it appears to have been a poor indicator of status due to the unweighted contributions of occupational status, income, and education. Analyzed separately, however, the effect of each respective variable was more

accurately discerned. While attained educational levels showed their lack of utility as a viable predictor of severity of informal sanction scores, income was more significant if not considerably more interesting. Collapsed into four income brackets, the scale scores increased steadily as income levels increased until the highest category (\$40,000 and greater). At this level, the mean unexpectedly dropped off considerably. Although this latter category is based upon only five respondents, such a distribution is curious. Certainly, regardless of whether such an unusual distribution is found to be little more than a statistical aberration, this finding seems ample cause for further exploration into the apparent relationship.

The basic premise concerning the effects of primary ties on normative behavior is put forth by the social control theorists, primarily Travis Hirschi. According to this theory as it was initially applied to juvenile delinquency, an individual's bond to society is the primary factor affecting deviant behavior. The marital status and the presence of an socially-defined example-setting role of the respondent as indicators of this social bond. Marital status, however, proved to be a poor predictor of perceived severity of informal sanctions. Although those respondents who were divorced indicated the highest scores in terms of perceived severity of sanctions, the mean scores between those respondents reporting married and single marital status did not vary considerably.

The presence of a socially-defined example-setting role also shed little light on establishing this variable as a viable influence on respondents' perceived severity of informal sanctions. In fact, although the difference of mean scores is far from significant, the

direction of increase is opposite of that stated in the related hypothesis. Nonetheless, although the analysis fails to confirm this hypothesis, the lack of significant difference is also a reasonably sufficient factor to discourage prematurely specifying a theoretical alternative. Clearly, more research is needed in this area, perhaps utilizing a more firmly grounded and established array of primary tie indicants.

As previously stated, marital status appears to be a relatively poor indicator regarding the severity of informal social sanctions, as is the presence of an example-setting role. Taken together, however, the findings are more interesting. While the marital status again appears to be of little distinguishing effect, the presence of children under the age of 18 living with the respondent appears to have an heightening effect on both marital status groups (married and unmarried) in terms of the perceived severity of social sanctions. Again, such an analysis is complicated due to the tremendous homogeneity of the sample (young, male, single, etc.).

Another construct derived from Hirschi's Social Control Theory is the community integration aspect of social bonding. Firstly, the variable which measured respondent's length of current residence was used to test the hypothesis that, assuming longer residences resulted in a greater integration into the community, length of residency should be positively correlated with the perceived severity of informal sanctions. The analysis of variance test, however, did not support this hypothesis. In fact, the reverse was shown to exist, although not to a great extent. That is, those who had resided in their respective communities the shortest amount of time (< 1 year) reported the highest mean score

(greater severity of informal sanctions) of any other group. Admittedly, judging from this, the failure to support this hypothesis may in fact lie in the theoretical framework. Although this may still be reflective of a less integrated bonding into the community, it appears that relative newcomers within their community environment are perceiving the severity of their DUI-related informal sanctions to be much greater than would be expected. Perhaps this "pre-integration" stage is perceived as an essential time in the social-integration process rather than a time which allows one a sort of temporary semi-anonymous existence.

Lastly, some support was shown to support the hypothesis that the size of the community of residence played a viable part in the prediction of mean scale scores. Although a statistically significant difference was not established, the basic premise of the hypothesis was supported. Those respondents living within a small town environment (<2,500) scored highest in terms of perceived severity of informal sanctions, while those within metropolitan areas (100,000+) scored the highest.

Potential Policy Implications

While the results discussed here are far from conclusive that certain personal and social characteristics are accurate predictors of DUI-related informal sanctioning, they should be interpreted theoretically rather than statistically. That is, the findings both in support and in dissention of the stated hypotheses should serve as a foundation for further research into the informal effects of DUI sanctions on various types of offenders.

For instance, a more precise and valid scale for measuring the construct of informal sanctions can be derived from this study. Also, the content validity of the construct could easily be modified to include other significant collectives thought to be a primary medium for informal sanctions (i.e., the church).

Also, and perhaps most importantly, there should be a melding together of formalized sanctioning entities with this future research on the informalized effects. From this, the courts and public interest groups alike could adopt various deterrent strategies aimed at specific social cohorts shown to be particularly susceptible to certain informal sanctions. Such an implementation could be effectively utilized at both the general and the specific stages of DUI deterrence. If the fear of mandatory prescribed formal sanctions (fine, loss of license, etc.) is simply a function of one's availability to resources (a good lawyer, alternative transportation, etc.), perhaps punishment of another nature should be prescribed drawing upon one's established fear of informal sanctions. A temporary loss of social status among those seemingly immune to the formal implications of DUI may serve to better deter themselves and others similar to them from driving while impaired.

Nonetheless, future research should focus upon this highly dynamic force within this timely issue. When further research can better establish the relationships between informal sanctions and how they affect various different members of society, then more effective formalized sanctions can be implemented as a social deterrent to drinking-and-driving.

APPENDICES

APPENDIX A:
SURVEY QUESTIONNAIRE

THE
UNIVERSITY
OF
NORTH
DAKOTA

DEPARTMENT OF SOCIOLOGY
Box 8192, University Station
Grand Forks, North Dakota 58202
(701) 777-2187

As of late, you've probably been on the listening end of most conversations involving DUI and similar alcohol-related driving offenses. Ironically, however, few studies have focused on the individual effects and experiences of those people whose views actually matter. In this sense, you are a valuable resource. The following short questionnaire is interested in YOUR opinions on the subject.

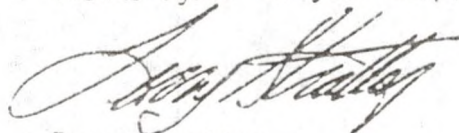
Filling out this questionnaire is entirely voluntary. It is not a mandatory part of the DUI program and there are no sanctions or penalties of any kind should you choose not to participate. While your individual viewpoints are essential, so is your freedom of choice. Whatever your decision, I thank you for your time and wish you the best in the future.

Please check one:

I wish to participate in the study by completing the attached questionnaire.

I choose not to participate in the study and am returning the uncompleted questionnaire to the staff counselor.

Thanks again for your help.



Terry Stratton
Graduate Student

Filling out this form will only take several minutes. Most of your answers can be made simply by placing a check mark in the box provided. Although a few questions may require more thinking than others, it's best to mark the first response which occurs to you. All answers are strictly confidential and your participation is totally anonymous. You CANNOT be identified, so feel free to be honest in your responses.

I. Listed below are statements with which you may or may not agree. Please indicate the extent of your agreement or disagreement by checking the appropriate box to the right of each selection.

	(strongly agree)	(agree)	Neutral	(disagree)	(strongly disagree)
	SA	A		D	SD
(X1) Because of the tougher DUI laws, fewer people are driving while impaired.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X2) Someone who makes \$50,000 a year is just as likely to be <u>arrested</u> for DUI as someone who makes \$15,000.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X3) Getting a DUI is simply a matter of odds. Everyone who drives while impaired eventually loses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X4) Overall, law enforcement agencies are fair and unbiased in their apprehension of impaired drivers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X5) Being arrested for DUI is nothing more than being in the wrong place at the wrong time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X6) Once you've been arrested for any one alcohol-related driving offense, the police have basically "got your number."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X7) Those arrested for driving while impaired from the use controlled substances (marijuana, cocaine, etc.) should be treated <u>no differently</u> than those arrested for driving impaired from drinking alcohol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X8) Most people arrested for DUI are people who have been drinking and driving for years.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X9) Even after multiple DUI arrests, most people simply return to their old ways of trying to "beat the odds."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X10) Those most supportive of tougher DUI laws are people who are against drinking rather than driving after drinking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		SA	A	Neutral	D	SD
(X11)	Most DUI offenders are problem alcoholics.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X12)	Younger people stand a greater chance of being arrested for DUI simply because they haven't had enough practice at driving while impaired.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X13)	Everyone arrested for DUI deserves everything they get.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X14)	Nightclubs and other liquor establishments have a public responsibility to help their customers avoid driving after drinking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X15)	Compared to other crimes, the penalties levied against DUI offenders are not that bad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X16)	The police and the courts in some parts of North Dakota treat DUIs tougher than others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X17)	Females arrested for DUI are typically more masculine and outgoing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X18)	Because they are unintentional, traffic injuries caused by impaired drivers <u>should not</u> be punishable by prison sentences.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X19)	All cases of DUI should not be treated the same by law because there are different circumstances in each instance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X20)	There are times when driving while impaired should be overlooked simply because it cannot be avoided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X21)	As long as no one is hurt, driving while impaired should not be a crime.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X22)	The biggest part of avoiding a DUI is knowing how to act when stopped by the police.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X23)	Women convicted of DUI are more likely to get larger fines than males.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X24)	The possibility of someone actually being injured by a drunk driver are very low.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(X25)	Anyone who can afford a good lawyer can beat a DUI rap, no matter if they are guilty or not.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | SA | A | Neutral | D | SD |
|-------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| (X26) | Despite all the exposure, most people still see DUI as traffic offense rather than a crime. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (X27) | At one time or another, everyone who drives after drinking thinks about getting a DUI. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11. Once again, the following are statements with which you may or may not agree. Rather than general views, however, these statements pertain to your own most recent experience. Please indicate the extent of your agreement or disagreement by checking the appropriate box to the right of each statement.

- | | | (strongly agree) | (agree) | Neutral | (disagree) | (strongly disagree) |
|------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | SA | A | Neutral | D | SD |
| (Z1) | The thing that bothered me most about getting a DUI was how my family would react. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z2) | I've acted out in my head what to say and how to act if I were ever stopped by the police while driving drunk. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z3) | After this arrest, I would volunteer myself as the "Life of the Party" for an evening to ensure a sober ride home for my friends. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z4) | Before my offense, I was well aware of the consequences involved with getting a DUI. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z5) | If stopped while being legally impaired, I'm confident I could "beat the rap" on another DUI. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z6) | I don't care what others might think about my getting a DUI. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z7) | If the names of people arrested for DUI were printed on the front page of the hometown newspaper, arrests would decrease noticeably. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z8) | After my arrest, I worried that my co-workers or family might think I had a drinking problem. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (Z9) | Most of the attention I got from my family regarding my DUI was little more than good natured kidding. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

		SA	A	Neutral	D	SD
(Z10)	Because of my DUI, I no longer have the same relationship with my superiors at work as I did before.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z11)	My DUI was damaging to me because of an obligation I have to setting a good example at home and/or at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z12)	The fine and loss of license doesn't even come close to the strain put on my family and my personal life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z13)	The fines and increased insurance rates are tough, but not nearly as bad as having to make a public appearance in court.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z14)	To me, getting caught was more embarrassing than the legal implications of actually being arrested.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z15)	Rather than being something to hide, my my DUI has earned the admiration of my closest friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z16)	My family wasn't surprised when I got my DUI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z17)	The first thing I thought about after being convicted for DUI was how I was going to survive without a drivers license.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z18)	If I could've arranged it, I would have payed an additional fine to have my name kept out of the local newspaper.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z19)	Despite the thousands of dollars generated by fines every year, getting a DUI is more damaging socially than financially.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z20)	If I volunteered to stay sober and drive the entire night, my friends would tease me for "wimping out" on a good time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z21)	My getting a DUI has made my friends a lot more fearful about driving drunk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z22)	Embarrassment hurts more than money.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z23)	I find it difficult not to drink if those around me are drinking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z24)	After being arrested, I was afraid people would label me a drunk or an alcoholic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		SA	A	Neutral	D	SD
(Z25)	I can avoid another DUI without altering my current lifestyle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Z26)	Getting a DUI is a status symbol that shows my friends I'm a dedicated partyier.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date of Birth: _____ Sex: M _____ F _____

Which of the following alcohol-related driving offenses required you to participate in this program? (check all that apply.)

DUI (driving while impaired)
 APC (actual physical control)
 minor in possession
 open container
 other: _____

Was this your first such offense? _____ yes, _____ no If no, please specify: _____

Approximately how far from your home did the offense occur? _____ miles

Were you given some type of alcohol test (blood test, intoxilyzer, etc.)? yes _____ no _____ If yes, what was your blood-alcohol content? _____

Are you currently employed? _____ yes _____ no If yes, what is your occupation? _____

What is your present marital status?

single, never married divorced
 married widowed
 separated

How many family members (brothers, sisters, children, etc.) under the age of 18 currently live with you? _____

Please indicate the size of the community in which you presently live:

farm town (10,000-25,000)
 rural (less than 2,500) city (25,000-100,000)
 small town (2,500-10,000) metropolitan (over 100,000)

How long have you resided in this location? _____ years _____ months please circle one

Which of the following categories best describes your net household income for the past year? (approximate income after taxes)

- | | |
|--|--|
| <input type="checkbox"/> \$0 - \$4,999 | <input type="checkbox"/> \$25,000 - \$29,999 |
| <input type="checkbox"/> \$5,000 - \$9,999 | <input type="checkbox"/> \$30,000 - \$34,999 |
| <input type="checkbox"/> \$10,000 - \$14,999 | <input type="checkbox"/> \$35,000 - \$39,999 |
| <input type="checkbox"/> \$15,000 - \$19,999 | <input type="checkbox"/> \$40,000 - \$44,999 |
| <input type="checkbox"/> \$20,000 - \$24,999 | <input type="checkbox"/> \$45,000 - \$49,999 |
| | <input type="checkbox"/> \$50,000 or above |

What is the highest grade you completed in school?

- | | |
|--|---|
| <input type="checkbox"/> 1 through 8 | <input type="checkbox"/> 13-15 (some college or trade school) |
| <input type="checkbox"/> 9 through 11 | <input type="checkbox"/> 16 + (college grad or more) |
| <input type="checkbox"/> 12 (high school grad) | |

Has anyone in your immediate family ever gotten a DUI? yes no

At what age do you first remember riding as a passenger in a car with someone who was impaired? _____ years old

How old were you the first time you drove when you felt legally impaired? _____ years old

Going back 1 year from the time you were cited for DUI, approximately how many times have you driven a motor vehicle when you felt you were legally impaired? (check one).

- | | | |
|--------------------------------|--------------------------------|-----------------------------------|
| <input type="checkbox"/> none | <input type="checkbox"/> 31-40 | <input type="checkbox"/> 71-80 |
| <input type="checkbox"/> 1-5 | <input type="checkbox"/> 41-50 | <input type="checkbox"/> 81-90 |
| <input type="checkbox"/> 6-10 | <input type="checkbox"/> 51-60 | <input type="checkbox"/> 91-100 |
| <input type="checkbox"/> 11-20 | <input type="checkbox"/> 61-70 | <input type="checkbox"/> over 100 |
| <input type="checkbox"/> 21-30 | | |

Try and remember back to the exact moment you were arrested for DUI. Who was the first person you worried about finding out? (ex., boss, roommate, etc.) _____

Comments:

THANK YOU FOR YOUR COOPERATION!

APPENDIX B:
RELIABILITY COEFFICIENTS

Reliability Analysis of Informal Sanctioning Scale

Scale Items

1. Z1 Bothered me the most was family reaction
2. Z6 Don't care what others think about my DUI
3. Z7 Arrests would decline if names printed in front page
4. Z10 No longer have the same relationship with co-workers
5. Z11 Damaging to my obligation at work/home
6. Z12 Fine/loss of license not as great as effect on family
7. Z13 Fine/insurance rates not as bad as court appearance
8. Z14 Getting caught more embarrassing than legal impacts
9. Z16 My family was not surprised with my DUI
10. Z18 Would have paid extra to have name kept out of paper
11. Z19 DUI is more embarrassing socially than financially
12. Z22 Embarrassment hurts more than money
13. Z24 Afraid of being labeled a drunk or an alcoholic

Item-Total Statistics

Item	Scale Mean if Item Deleted	Alpha if Item Deleted
Z1	31.3261	.8046
Z6	30.9457	.7999
Z7	31.4674	.8041
Z10	32.0217	.8133
Z12	31.5326	.7882
Z13	31.9457	.7944
Z14	31.4891	.8081
Z16	30.6304	.8164
Z18	31.6957	.7854
Z19	31.7174	.7961
Z22	31.4457	.7902
Z24	31.5543	.7927

Number of Cases = 92

Number of Items = 13

Number of Missing Cases = 8

Alpha = 0.8123

REFERENCES

REFERENCES

- Akers, Ronald L.
 1973 Deviant Behavior: A Social Learning Approach. Belmont, California: Wadsworth Publishing Company, Inc.
- Anderson, Linda S., Theodore G. Chiricos and Gordon P. Waldo
 1977 "Formal and Informal Sanctions: A Comparison of Deterrent Effects." Social Problems 25:103-114.
- Antunes, George and A. Lee Hunt
 1973 "The Impact of Certainty and Severity of Punishment on Levels of Crime in American States: An Extended Analysis." The Journal of Criminal Law & Criminology 64(4):486-493.
- Bankston, William B., Quentin A.L. Jenkins, Cheryl Thayer-Doyle and Carol Y. Thompson
 1986 "Fear of the Drunken Driver: Analysis of an Emergent Social Problem." Deviant Behavior 7:107-120.
- Beccaria, Cesare
 1963 On Crimes and Punishments. Indianapolis, Indiana: Bobbs-Merrill.
- Beck, Kenneth H. and Terry G. Summons
 1985 "A Comparison of the Social Context for Alcohol Consumption of College Students and Convicted DUI Offenders." Journal of Alcohol and Drug Education 31:31-39.
- Bentham, Jeremy
 1962 The Works of Jeremy Bentham (Bowring ed., Vol. I). New York: Russell and Russell.
- Blalock, Hubert M., Jr.
 1979 Social Statistics (Revised Second Edition). New York: McGraw-Hill.
- Borkenstein, Robert F.
 1974 "Problems of Enforcement, Adjudication, and Sanctioning." Alcohol, Drugs, and Traffic Safety: Proceedings of the Sixth International Conference on Alcohol, Drugs, and Traffic Safety September 8-13:655-662.
- Borkenstein, Robert F., Robert F. Crowther, Ronald P. Shumate, William B. Ziel and Richard Zylman
 1969 The Role of the Drinking Driver in Traffic Accidents. (Fourth Printing). Department of Police Administration. Indiana University.

- Bowers, William J. and Richard D. Salem
 1972 "Severity of Formal Sanctions as a Repressive Response to Deviant Behavior." Law and Society Review 6:427-441.
- Carlson, William L.
 1973 "Age, Exposure, and Alcohol Involvement in Night Crashes." Journal of Safety Research 5:247-259.
- Carlson, William L. and Donald Klein
 1970 "Familial vs. Institutional Socialization of the Young Traffic Offender." Journal of Safety Research 2:13-25.
- Carmines, Edward G. and Richard A. Zeller
 1979 Reliability and Validity Assessment. Sage University Paper series on Quantitative Applications in the Social Sciences, series no. 07-017, Beverly Hills: SAGE Publications Inc.
- Carroll, Philip S., William L. Carlson, Thomas L. McDole and Donald W. Smith
 1970 Acquisition of Information on Exposure and on Nonfatal Crashes. Report No. 03169, National Highway Traffic Safety Administration. Ann Arbor, Michigan: Highway Safety Research Institute, Michigan, 1971.
- Chiricos, Theodore G. and Gordon P. Waldo
 1970 "Punishment and Crime: An Examination of Some Empirical Evidence." Social Problems 18:200-217.
- Clark, Alexander A. and Jack P. Gibbs
 1965 "Social Control: A Reformulation." Social Problems 12:398-415.
- Claster, Daniel S.
 1967 "Comparison of Risk Perception Between Delinquents and Non-Delinquents." The Journal of Criminal Law, Criminology and Police Science 58:80-86.
- Cohen, Albert K.
 1966 Deviance and Control. Englewood Cliffs, N.J.: Prentice-Hall.
- Cooper, Harold H.A.
 1973 "Crime Control and the Deterrence Perspective." Criminology 11:161-182.
- Cosper, Ronald and Kenneth Mozersky
 1968 "Social Correlates of Drinking and Driving." Quarterly Journal of Studies on Alcohol (Supplement No. 4) 29:58-117.

- Cramton, Roger C.
1969 "Driver Behavior and Legal Sanctions: A Study of Deterrence." Michigan Law Review 67:421-454.
- Cramton, Roger C.
1968 "The Problem of the Drinking Driver." American Bar Association Journal 54:995-999.
- Ennis, Pamela K.
1977 "General Deterrence and Police Enforcement: Effective Countermeasures against Drinking and Driving." Journal of Safety Research 9:15-23.
- Erickson, Maynard L., Jack P. Gibbs and Gary F. Jensen
1977 "The Deterrence Doctrine and the Perceived Certainty of Legal Punishments." American Sociological Review 42:305-317.
- Faley, Thomas and James. T. Tedeschi
1971 "Status and Reaction to Threats." Journal of Personality and Social Psychology 17(2):192-199.
- Flygare, Thomas J.
1983 "Drunk Driving Conviction Not Sufficient To Dismiss Tenured Teacher." Phi Delta Kappan 4:588-589.
- Geerken, Michael R. and Walter R. Gove
1975 "Deterrence: Some Theoretical Considerations." Law and Society Review 9:498-513.
- Gibbons, Donald C.
1983 "Mundane Crime." Crime and Juvenile Delinquency 29 (2):217-233.
- Gibbs, Jack P.
1975 Crime, Punishment, and Deterrence. New York: Elsevier Scientific Publishing Company, Inc.
- Grasmick, Harold G. and Donald E. Green
1980 "Legal Punishment, Social Disapproval and Internalization as Inhibitors of Illegal Behavior." The Journal of Criminal Law & Criminology 71(3):325-335.
- Gurnack, Anne M.
1986 "Population Characteristics of Drunk Drivers Referred For Assessment in Two Wisconsin Counties 1981-1983." Journal of Alcohol and Drug Education 31:8-22.
- Gusfield, Joseph R.
1986 Symbolic Crusade: Status Politics and the American Temperance Movement (Second Edition). Urbana and Chicago, Illinois: University of Illinois Press.

- Gusfield, Joseph R.
1981 The Culture of Public Problems: Drinking-Driving and the Symbolic Order. Chicago and London: The University of Chicago Press.
- Healey, Joseph F.
1984 Statistics: A Tool for Social Research. Belmont, California: Wadsworth Publishing Company.
- Hirschi, Travis
1969 Causes of Delinquency. Berkeley and Los Angeles: University of California Press.
- Hollinger, Richard C.
1984 "Race, Occupational Status, and Pro-Active Police Arrest for Drinking and Driving." Journal of Criminal Justice 12:173-183.
- Homans, George C.
1961 Social Behavior: Its Elementary Forms. New York: Harcourt, Brace and World.
- Hurst, Paul M.
1973 "Epidemiological Aspects of Alcohol in Driver Crashes and Citations." Journal of Safety Research 5(3):130-148.
- Hyman, Merton M.
1968 "The Social Characteristics of Persons Arrested for Driving While Intoxicated." Quarterly Journal of Studies on Alcohol, Supplement No. 4:138-177.
- Jensen, Gary F.
1969 "'Crime Doesn't Pay': Correlates of a Shared Misunderstanding." Social Problems 17:189-201.
- Jones, Robert K.
1977 "Alcohol and Highway Crashes: A Projection for the 1980s." University of Michigan Traffic Safety Research Institute Research Review 7(5):1-16.
- Kim, Jae-On and Charles W. Mueller
1986 Introduction to Factor Analysis: What It Is and How To Use It. Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-013, Beverly Hills: SAGE Publications, Inc.
- Klein, Donald
1968 "The Teen-Age Driver: A Research Paradigm." Traffic Quarterly 1968:97-107.
- Larsen, Donald E. and Baha Abu-Laban
1968 "Norm Qualities and Deviant Drinking Behavior." Social Problems 15:441-450.

Middendorff, Wolf

- 1968 The Effectiveness of Punishment: Especially in Relation to Traffic Accidents. South Hackensack, N.J.: Fred B. Rothman and Sons.

Mills, Charles Wright

- 1959 The Sociological Imagination. New York: Grove Press, Inc.

Morris, Norval and Gordon Hawkins

- 1970 The Honest Politician's Guide to Crime Control. Chicago: University of Chicago Press.

Mulford, Harold A.

- 1964 "Iowa's Drinking Driver, 1961; With a Method for Identifying Drinking Drivers in a Survey Population." Social Problems 12:196-211.

Nathan, Peter E.

- 1983 "Failures in Prevention: Why We Can't Prevent the Devastating Effect of Alcoholism and Drug Abuse." American Psychologist 38 (4):459-467.

National Safety Council

- 1987 Accident Facts: 1987 Edition. Chicago: National Safety Council.

North Dakota State Highway Department

- 1987 1986 Vehicular Accident Facts. North Dakota State Highway Department Drivers License and Traffic Safety Division.

Pandiani, John A. and Robert J. McGrath

- 1986 "Attempts to Dissuade Drinkers from Driving: The Effect of Driver Characteristics." Journal of Drug Education 16 (4):341-348.

Pedhazur, Elazar J.

- 1982 Multiple Regression in Behavioral Research: Explanation and Prediction (Second Edition). New York: Holt, Rinehart and Winston.

Pelz, Donald C., Thomas L. McDole, and Stanley H. Schuman

- 1975 "Drinking-Driving Behavior of Young Men in Relation to Accidents." Journal of Studies on Alcohol 36:956-972.

Phillips, Llad, Subhash Ray, and Harold L. Vetey, Jr.

- 1984 "Forecasting Highway Casualties: The British Road Safety Act and a Sense of Deja Vu." Journal of Criminal Justice 12:101-114.

- Rettig, Solomon and Harve E. Rawson
 1963 "The Risk Hypothesis in Predictive Judgments of Unethical Behavior." Journal of Abnormal and Social Psychology 66(3): 243-248.
- Ross, Hugh Laurence
 1984a Detering the Drinking Driver: Legal Policy and Social Control (Revised and Updated Edition). Lexington, Massachusetts: D.C. Heath and Company.
- Ross, Hugh Laurence
 1984b "Social Control Through Deterrence: Drinking-And-Driving Laws." Annual Review of Sociology 10:21-35.
- Ross, Hugh Laurence
 1977 "Deterrence Regained: The Cheshire Constabulary's 'Breathalyzer Blitz'." Journal of Legal Studies 6:241-249.
- Ross, Hugh Laurence
 1976 "The Neutralization of Severe Penalties: Some Traffic Law Studies." Law and Society Review 10:403-413.
- Ross, Hugh Laurence
 1975 "The Scandanavian Myth: The Effectiveness of Drinking-and-Driving Legislation in Sweden and Norway." Journal of Legal Studies 4:285-310.
- Ross, Hugh Laurence
 1960 "Traffic Law Violation: A Folk Crime." Social Problems 8:231-241.
- Ross, Hugh Laurence and Murray Blumenthal
 1974 "Sanctions for the Drinking Driver: An Experimental Study." Journal of Legal Studies 3(1):53-61.
- Ross, Hugh Laurence, R. McCleary, and T. Epperlein
 1982 "Deterrence of Drinking and Driving in France: An Evaluation of the Law of July 12, 1978." Law and Society Review 16:398-417;
- Roizen, J.
 1982 "Estimating Alcohol Involvement in Serious Events." Alcohol Consumption and Related Problems. Alcohol and Health Monograph No. 1, Rockville, Maryland: National Institute on Alcohol Abuse and Alcoholism.
- Salem, Richard G. and William J. Bowers
 1970 "Severity of Formal Sanctions as a Deterrent to Deviant Behavior." Law and Society Review 5:21-40.

- Schneider, Joseph W.
1978 "Deviant Drinking as Disease: Alcoholism as a Social Accomplishment." Social Problems 25:361-372.
- Schur, Edwin
1971 Labelling Deviant Behavior: Its Sociological Implications. New York: Harper and Rowe.
- Schwartz, Richard D. and Sonya Orleans
1967 "On Legal Sanctions." The University of Chicago Law Review. 34:274-300.
- Shoham, S. Giora
1974 "Punishment and Traffic Offenses." Traffic Quarterly 28:61-73.
- Shoham, S. Giora, Nehemia Geva, Rachel Markowski and Nava Kaplinsky
1976 "Internalisation of Norms, Risk-Perception and Anxiety as Related to Driving Offenses." British Journal of Criminology 16:142-155.
- Shover, Neal, William B. Bankston and J. William Gurley
1977 "Responses of the Criminal Justice System to Legislation Providing More Severe Threatened Sanctions." Criminology 14(4):483-499.
- Sigelman, Carol K. and Lee Sigelman
1976 "Authority and Conformity: Violation of a Traffic Regulation." The Journal of Social Psychology 100:35-43.
- Sinha, Jai B.
1967 "Ethical Risk and Censure-Avoiding Behavior." The Journal of Social Psychology 71:267-275.
- Smith, Thomas
1926 Topper: An Improbable Adventure. New York: McBride.
- Snortum, John R.
1984 "Controlling the Alcohol-Impaired Driver in Scandanavia and the United States: Simple Deterrence and Beyond." Journal of Criminal Justice 12:131-148.
- SPSS, Inc.
1986 SPSS-X User's Guide: Second Edition. Chicago, Illinois: SPSS, Inc.
- Sykes, Gary W.
1984 "Saturated Enforcement: The Efficacy of Deterrence and Drunk Driving." Journal of Criminal Justice 12:185-197.

- Teevan, James J.
1972 "Deterrent Effects of Punishment: The Canadian Case." Deviant Behavior and Societal Reaction in Canada. Toronto: Holt, Rinehart, and Winston, Ltd.
- Tillman, Walter A. and George E. Hobbs
1968 "The Accident-Prone Automobile Driver." American Journal of Psychiatry 106:321-333.
- Tittle, Charles R.
1980 Sanctions and Social Deviance: The Question of Deterrence. New York: Praeger Publishers.
- Tittle, Charles R.
1977 "Sanction Fear and the Maintenance of Social Order." Social Forces 55(3):579-596.
- Tittle, Charles R.
1969 "Crime Rates and Legal Sanctions." Social Problems 16:409-423.
- Tittle, Charles R. and Charles H. Logan
1973 "Sanctions and Deviance. Evidence and Remaining Questions." Law and Society Review 7:371-392.
- Tittle, Charles R. and Alan R. Rowe
1973 "Moral Appeal, Sanction Threat, and Deviance: An Experimental Test." Social Problems 20:488-498.
- U.S. Department of Justice
1987 Sourcebook of Criminal Justice Statistics - 1986. Albany, New York: The Hindelang Criminal Justice Research Center.
- U.S. Department of Justice
1986 The Enforcement of Fines as Criminal Sanctions: The English Experience and Its Relevance to American Practice. New York: The Vera Institute of Justice.
- U.S. Department of Justice
1984 Fines In Sentencing: A Study of the Use of the Fine as a Criminal Sanction. New York: The Vera Institute of Justice.
- U.S. Department of Transportation
• 1968 Alcohol and Traffic Safety. Report to the U.S. Congress. Washington, D.C.

- Vegega, Maria E.
1983 "Norms and Attitudes Related to Alcohol Usage and Driving."
In Research Notes. The U.S. Department of Transportation
National Highway Traffic Safety Commission. Contract No.
DTNH22-81-C-07385.
- Waldo, Gordon P. and Theodore G. Chiricos
1972 "Perceived Penal Sanction and Self-Reported Criminality: A
Neglected Approach to Deterrence Research." Social Problems
19:522-540.
- Yoder, Richard D.
1975 "Prearrest Behavior of Persons Convicted of Driving While
Intoxicated." Journal of Studies on Alcohol 36:1573-1577.
- Yoder, Richard D. and Robert A. Moore
1973 "Characteristics of Drunken Drivers." Quarterly Journal of
Studies on Alcohol 34:927-936.
- Zimring, Franklin E. and Gordon Hawkins
1973 Deterrence: The Legal Threat in Crime Control. Chicago:
The University of Chicago Press.
- Zung, Burton J.
1984 "Correlates of the Michigan Alcoholism Screening Test (MAST)
Among DUI Offenders." Journal of Clinical Psychology
40(2):607-612.
- Zylman, Richard
1972a "Age is More Important Than Alcohol in the Collision-
Involvement of Young and Old Drivers." Journal of Traffic
Safety Education 20:7-8.
- Zylman, Richard
1972b "Race and Social Status Discrimination and Police Action in
Alcohol-affected Collisions." Journal of Safety Research
4:75-84.