

AN EXAMINATION OF PERCEPTUAL

VARIABLES IN DETERRENCE

By

Andrea Lynn Solarz

A THESIS

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

MASTER OF ARTS

Department of Psychology

1983

.

Copyright by ANDREA LYNN SOLARZ 1983

ABSTRACT

AN EXAMINATION OF PERCEPTUAL VARIABLES IN DETERRENCE

by

Andrea L. Solarz

In its briefest form, the deterrence doctrine proposes that crime rates vary inversely with the severity of punishments, and with the certainty that punishments will be imposed. In the present research, variables hypothesized to be relevant to the strength of deterrence were measured using a sample of criminal offenders. Three areas of importance to deterrence were addressed. First, the perceived severities of various criminal sanctions were evaluated using magnitude estimation techniques. Second, perceptions of the risk of criminal justice system involvement upon the commission of an offense were measured. In addition, estimates were obtained of the levels of sanctions needed to deter individuals from committing certain offenses. Finally, perceptions of risk were compared with estimates of official risk to get an indication of the accuracy of perceptions. The results of the analyses are presented and discussed, and recommendations for future research are made.

Dedicated to my parents

Andrew K. Solarz

and

Marilyn Solarz

TABLE OF CONTENTS

I	age?
LIST OF TABLES	vi
LIST OF FIGURES	viii
Chapter	
1. INTRODUCTION	1
Types of Deterrence Background Research Research on Perceptual Variables Knowledge of Punishments Certainty of Punishments Perceived Severity of Sanctions General Criticisms of Past Perceptual Research Research Objectives Specific Research Goals	4 9 11 13 16 19 21 22
2. METHOD	25
Participants Sampling Prison Inmates Probationers Parolees Jail Inmates Representativeness of Sample Demographic and Background Information Measures Perceived Severity of Sanctions Time Served Estimates Personal Assessment of Risk Procedures Interviewers Training Supervision Administrative Agreements Data Collection	25 25 25 26 27 27 33 37 38 41 41 42 42 43 43
Prison Inmate Interviews Probationer and Parolee Interviews Jail Inmate Interviews Interview Process Reliability of Measures	43 45 46 46 47

Chapter

3.	RESULTS		48
	Perce Se Ja Ex Su Perso Pe	eived Severity of Sanctions everity Ratings ail Severity Scale expected Amount of Time Served mmary and Discussion onal Assessment of Risk erceived Probabilities of Criminal Justice System Contact Perceived Risk of Criminal Justice Contact	49 49 61 65 67 69 70
	Ex Le Su Accur Pe Ex	for Breaking and Entering versus for Armed Robbery	71 74 78 82 86 92 99 99 107
4.	DISCUSSI	ION	111
	Perce Perce Some Concl	eived Severity of Sanctions eptions of Risk Implications for the Deterrence Doctrine Lusions	112 114 115 118
APPEND	ICES		
Арр	endix A:	Participation Agreement	122
Арр	endix B:	Interview Outline	123
REFERE	NCES		130

Page

LIST OF TABLES

Tab1	e	Page
1.	Location of Interview by Offender Status	29
2.	Race and Age of Participants	30
3.	Offenses Committed by Participants	31
4.	Prison and Jail Experience of Participants	32
5.	Summary of Measures	34
6.	Sanction Levels Rated	36
7.	Prediction Equations for Perceived Severity of Sanctions	53
8.	Perceived Severity Score by Length of Sentence	60
9.	Ratio of Perceived Severity of Prison Sentences to Perceived Severity of Jail and Probation Sentences	62
10.	Perceived Severity of Jail Sentences	63
11.	Ratio of Perceived Amount of Time Served to Sentence Length	66
12.	Probability of Criminal Justice System Contact - Breaking and Entering	72
13.	Probability of Criminal Justice System Contact - Armed Robbery	73
14.	Armed Robbery versus Breaking and Entering Probabilities - All Cases	75
15.	Armed Robbery versus Breaking and Entering Probabilities - Prison-Experienced	76
16.	Armed Robbery versus Breaking and Entering Probabilities - Non-Prison Experienced	77
17.	Expected Prison Sentence: Prison-Experienced versus Non-Experienced	79
18.	Time Expect to Serve versus Time Expect Others to Serve - Breaking and Entering	81

Table

Page

19.	Time Expect to Serve versus Time Expect Others to Serve - Armed Robbery	83
20.	Level of Deterrability: Breaking and Entering versus Armed Robbery	85
21.	Deterred by Prison Sanctions versus Deterred by Non-Prison Sanctions	87
22.	Comparison of Expected Prison Time with Amount of Prison Time Needed to Deter	89
23.	Perceived Risk of Prison-Deterred versus Non-Prison Deterred	91
24.	Perceptions of Risk - Burglars	93
25.	Perceptions of Risk - Armed Robbers	94
26.	Official Risk of Criminal Justice System Involvement	100
27.	Court Dispositions for 1980	103
28.	Court Dispostions for 1980: Breaking and Entering and Armed Robbery	104

.

LIST OF FIGURES

Figu	re	age
1.	A Simple Representation of the Deterrence Doctrine	5
2.	Perceived Severity of Probation Sentences	54
3.	Perceived Severity of Jail Sentences	55
4.	Perceived Severity of Prison Sentences	56
5.	Perceived Severity of Sentences	57
6.	Perceived Severity Values	59

CHAPTER 1

INTRODUCTION

One of the functions of legal penalties and sanctions is to inhibit individuals from engaging in criminal acts. Potential criminals may evaluate possible negative consequences of illegal behavior and elect to remain within the confines of the law. This notion that "law and order" is maintained through the threat of punishment is called deterrence. The idea that the prospect of pain (punishment) deters people from acting illegally is intuitively sound. Indeed, it is one of the most common methods for dealing with behavioral transgressions. However, the "theory" of deterrence, although originally postulated over a century ago (Benthem, 1962), remains vaguely defined and largely untested (Beyleveld, 1979; Gibbs, 1979; Tittle, 1980).

Several authors have noted the inappropriateness of referring to deterrence principles as a theory (see for example, Beyleveld, 1979; Gibbs, 1975; Silberman, 1976) and refer instead to a deterrence doctrine. In its briefest form, the deterrence doctrine consists of the following

propositions:

- The rate of commission of a crime varies inversely with the severity of the punishments for the crime
- 2. The rate of commission of a crime varies inversely with the certainty of sanctions for the crime
- 3. The rate of commission of a crime varies inversely with the celerity of sanctions for the crime (Beyleveld, 1980, p. xxviii)

In other words, the use of more severe, more certain, and/or more swiftly applied sanctions will result in fewer offenses being committed.

For the most part, the concept of celerity has been disregarded in studies of deterrence. The rationale for including celerity in the deterrence doctrine is based on experimental studies of conditioning. These studies found that in order for conditioning to occur, the time lag must be very short (a matter of seconds) between the two events to be associated (Gibbs, 1975; Buss, 1973). Extending this principle to the deterrence doctrine, the time between the commission of an offense and the punishment (i.e., prison, jail, etc.) must be very short. Clearly, this close association is not operant, or even possible, under the present system of criminal justice. Consequently, further discussion will concentrate on the variables of severity and certainty.

It has been argued by many researchers in recent years (e.g. Williams and Gibbs, 1981; Fattah, 1977; Lotz, et al, 1978; Webb, 1980; Carroll, 1978; Erickson and Gibbs, 1976) that an examination of objective measures of the certainty or severity of punishments provides an incomplete picture of the deterrence doctrine. Rather, it is also necessary to consider how those objective properties of punishments are perceived of by potential offenders before causal relationships can be established between the threat of punishments and behavior (i.e., crime rates). Before potential criminals can be deterred by severe and certain penalties, they must perceive those penalties as being certain and/or severe.

As an example, imagine that on the average, convictions for breaking and entering net a two year prison sentence and there is an overall probability of being sentenced to prison of twenty percent. An individual who is tempted to burgle may abstain from committing breaking and entering if he or she believes that there is a mandatory death sentence for breaking and enterings, and that he or she has a 100 percent probability of being convicted. The same individual, however, may elect to commit breaking and enterings if he or she believes that there is a five percent probability of being convicted of a breaking and entering and receiving a sentence of one year on probation. In both of these situations, the actual risks and penalties are the same. Behavior. however, is determined by subjective estimates of risk and sanction severity. The perceptions of the variables important to deterrence thus become the relevant factors in determining the response of individuals to the threat of punishment.

The fact that potential offenders must perceive punishments to be to some degree certain and/or severe before they can be deterred leads to another assumption implicit in the deterrence doctrine. This is that

individuals must have some awareness that certain acts are prohibited by law and that the commission of those acts can lead to some type of punishment. In other words, there must be some awareness of a potential punishment before that punishment can act as a deterrent. In the literature, this concept is referred to as the knowledge or awareness of criminal sanctions. Although deterrence may not occur even when offenders perceive that punishments exist, deterrence <u>cannot</u> occur without that awareness.

Figure 1 (Gibbs, 1979) presents a simple representation of the deterrence doctrine. From this figure, several relationships can be observed, not all of which can be measured directly. According to this model, objective properties deter criminality only through perceptual variables. In other words, perceptions act as intervening variables in the relationship between objective properties of punishments and crime rates. Consequently, in order to determine how objective properties of punishments affect crime rates, it is necessary to first examine the relationships between objective and perceptual variables.

Types of Deterrence

Several types of deterrence can be defined. Various typologies have been developed to discriminate between different types of deterrence based on the specific characteristics of the population under study, the type of offense, the nature of the penalties, normative climate and other such factors (see, for example, Fattah, 1977; Gibbs, 1975; Gibbs, 1979; Beyleveld, 1979; Webb, 1980). Clearly, the examination of deterrence can become very complicated depending on the types and numbers of variables

A Simple Representation of the Deterrence Doctrine

Figure 1



- (+) Direct relation(-) Inverse relation Ĵ
- Underived proposition
- Derived proposition

(Gibbs, 1979, p. 658)

considered to be important and the broadness or narrowness of the definition of deterrence used. All of these distinctions will not be discussed. They have been extensively described by other authors and the reader is referred to them (Gibbs, 1975; Beyleveld, 1979; Beyleveld, 1980; Fattah, 1977).

One distinction which is relevant to the current study is between "general" and "specific" deterrence. Specific deterrence is distinguished from general deterrence by the populations included. General deterrence refers to the effect of the threat of punishment on an individual who has had no personal direct experience with that Specific deterrence, on the other hand, refers to the punishment. deterrent effect of a sanction on a potential offender who has previously For example, the threat of imprisonment would have a been punished. general deterrent effect on a previous non-offender and a specific effect The distinction is made based on an assumption that the on a parolee. fear of the risk of punishment, and subsequent likelihood of offending, is different for individuals who have experienced punishment. According to the deterrence doctrine, the experience of suffering punishment may make individuals less likely to recidivate because they do not wish to experience that punishment again. Thus, with specific deterrence, the strength of a deterrent effect is influenced by the individual's personal experiences with punishment. Individuals who are responding to general deterrence, however, are deterred from committing offenses by the example set by the punishment of criminals have who commited similar acts.

For the most part, people are well socialized into believing that committing crimes is wrong. They do not require the threat of punishment to maintain themselves as law abiding citizens. Thus. deterrence applies only to a smaller population for whom this potentially socialization is not present. As has already been suggested, this must include persons who are aware of the illegality of the act and who are aware that there is some probability of receiving a sanction by committing the offense. In addition, in order for deterrent policies to be applicable to a certain group, those individuals must actually contemplate committing the specified offense(s). Even so, it must be remembered that social norms vary and that all individuals do not believe that all of the same acts prohibited by law should be considered criminal. Because of this, the group of people for whom deterence may be relevant may fluctuate in relation to the type of offense, cultural norms and point in time.

With respect to general deterence, the group who may be deterred is a relatively small group of persons who are likely to commit a criminal act. This has been referred to as the "marginal group" (Fattah, 1977). The actual effects of deterrence can only be measured with respect to this marginal group. Theoretically, policy changes which do not alter deterrence levels for this group will have no effects on crime rates. Similarly, if policy changes do produce stronger deterent effect, then the magnitude of those effects can only be measured against the size of the marginal group, and not the entire population.

The target group for special deterrence involves, of course, only individuals who have been previously punished. However, punishments do not necessarily have a deterrent effect on all persons who have been sanctioned. In order for deterrence to be operant, an individual must be aware of the illegality of the act and that it carries a sanction, and he or she must contemplate committing that act. Then, because of previous experience with the threatened sanction, he or she refrains from committing the offense. Thus, with specific deterrence, as well as with general deterrence, it is difficult to clearly identify the groups of people whose criminal behavior is dependent upon their perceptions of the severity and certainty of sanctions and their awareness of the existence of sanctions.

In addition to deterrence, there are a number of other ways in which punishment can prevent crimes. These can present additional problems in interpreting the strength of deterrent effects. For example. incapacitation reduces crime removina offenders from crime by opportunities. If, for example, an inverse relationship is found between prison sentence severity and crime rates, this relationship could be attributed to an incapacitative effect as well as to a deterrent effect. An incapacitative effect would occur if crime was reduced because longer sentences caused offenders to be incarcerated longer and they were consequently not able to commit offenses. A deterrent effect would be realized only if the crime rate was reduced because potential offenders chose not to commit offenses because they did not want to risk receiving

lengthier sentences. Other ways in which punishment reduces crime are discussed by Gibbs (1975, 1979) and will not be covered here.

Background Research

Until approximately ten to fifteen years ago, deterrence research dealt almost exclusively with the question of the deterrent effect of capital punishment. Although many studies have been done in this area, conclusive results have not been found (see, for example, Blumstein et al, 1978; Fattah, 1977; Klein et al, 1978). Most of the studies have suffered from a variety of weaknesses, including failures to control for other factors that might affect the murder rate (Blumstein et al, 1978; Fattah, 1977).

The lack of generalizability of capital offenses to other crimes makes their use questionable as an index crime for studying deterrence. Homicide, for example, is a unique criminal event which, in many cases, may not even be subject to the influence of deterrence. It is often an impulsive crime where outcomes cannot be evaluated by the offender. Although homicide has a high certainty of punishment and of receiving stiff penalties, other characteristics may also make it inappropriate for the study of deterrence. For example, it is a very low incidence event, making it difficult to measure deterrent effects. In addition, data have generally been analyzed using correlational techniques which make it difficult to make affirmative statments regarding causation (see for example, Cook, 1977; Fattah, 1977, 1981; Klein, et al, 1978; Beyleveld, 1980; Brier and Fienberg, 1980). Traditionally, deterrence research has involved the study of concrete variables and the analyses of natural

variation. In this type of research, variations in sanctions and crime rates are observed over time or in different areas. Attempts are then made to see whether variations in sanction levels produce accompanying changes in crime rates. A variety of factors make this method less than satisfactory. Aside from errors inherent in the measuring and reporting of crimes, it is risky to make causal statments with this technique. Other factors may also be producing changes, such as the effects of increased incapacitation which accompany more severe penalties (Nagin, 1978; Gibbs, 1975; Gibbs, 1979; Tittle, 1978, 1980; Gibbs, 1978; Beyleveld, 1980; Greenberg, 1977; Fattah, 1983).

Generally, deterrence studies have ignored the importance of examining deterrence as a psychological doctrine. Until fairly recently, little consideration was given to the evaluation of perceptual variables. In non-perceptual studies, deterrence has been measured with reference to actual penalties. For example, median length of prison sentences received may be used as a measure of severity (e.g. Antunes and Hunt, 1972; Erickson and Gibbs, 1975) and probabilities of incarceration calculated from official crime statistics used as a measure of certainty (e.g. Antunes and Hunt, 1972; Erickson and Gibbs, 1975). Unless perceived penalties and perceptions of risk are commensurate with actual levels, it is impossible to measure deterrence with this method (see Figure 1). In fact, it can be said that research on deterrence which relies completely on non-perceptual variables may not be examining deterrence at all, and as such, the results of those studies can only be

considered inconclusive (Henshel, 1978; Gibbs, 1979; Beyleveld, 1980; Webb, 1980).

Research on Perceptual Variables

The need to study the role of perceptions in deterrence has been established. In the last ten to fifteen years, a wide range of studies which include a variety of perceptual variables has been conducted (see Beyleveld, 1980 for a review). In general, these studies have focused on one or two of the perceptual variables relevant to deterrence, particularly the certainty and severity of punishment. Following is a review of some of the methods used to measure perceptual variables in deterrence research to date, and a discussion of the shortcomings of those methods.

<u>Knowledge of punishments.</u> In order for potential offenders to be deterred by the threat of criminal sanctions, they must first be aware that the act which they are contemplating is illegal and may result in some type of punishment. However, the study of the knowledge or awareness of criminal sanctions has been largely neglected in deterrence research. In addition, researchers have set different criteria for what constitutes "knowledge." For example, a narrow definition could require knowledge of specific maximum legal penalties for various offenses. A broader criterion for awareness might be the knowledge that prison is a possible legal sanction for a given offense. Furthermore, knowledge can apply to various aspects of the criminal justice system and its functioning. These include knowledge of maximum statutory penalties, awareness of crime rates, and knowledge of official arrest rates.

The first major study dealing with public knowledge of criminal sanctions was conducted in California in the 1960's (California Assembly Committee on Criminal Procedure, 1968), where knowlege of specific penalties for offenses was assessed following a multiple choice format. Using a narrow definition of knowledge, the researchers concluded from the results that people were extremely ignorant of penalties. They further concluded that this lack of absolutely accurate knowledge meant that those penalties were not acting to deter potential offenders.

In a later study, Meier and Johnson (1977) simply asked respondents whether or not they were aware of federal and/or state laws, without assessing what respondents believed those penalties to be. Other methods of assessing knowledge or awareness have involved asking respondents whether certain penalties can be applied to given offenses and, if so, what is the maximum of those penalties (Williams, et al, 1980; Williams and Gibbs, 1981; Williams and Erickson, 1981; Warr, et al, 1982).

Clearly, more research needs to be done in this area. This study should include examining the relationships between different levels of awareness and deterrence. Absolute knowledge of penalties is undoubtedly not necessary for deterrence to operate (Williams and Erickson, 1981; Williams, et al, 1980). However, some knowledge certainly <u>is</u> necessary. The level of awareness which is necessary for any deterrence to occur is, however, unknown.

<u>Certainty of punishments.</u> The perceived certainty of punishment has been measured by several researchers using a range of methods and conceptions of how perceived certainty should be defined. Several general methods can be described.

Many researchers have examined the perceived certainty of punishments by assessing the perceived probability of punishment for a "generalized other." In these studies, respondents are asked to evaluate the chances that somebody (else) committing an offense would be punished. In an early study of this type, Waldo and Chiricos (1972) assessed perceived certainty by asking the percentage of criminals who get caught subsequent to offending. Other resarchers have also measured perceived certainty as the proportion of offenders who get caught, including Teevan (1976, 1977a, 1977b); Jacob (1980); Erickson, et al (1977); Erickson and Gibbs (1978); Jensen, et al (1978); Kraut (1976); Parker and Grasmick (1979); Saltzman, et al (1982) and Paternoster, et al (1983).

Typically, these researchers measure perceived certainty by asking such questions as "for all people who committed (offense) last year, how many do you think were arrested," or "out of the next 100 persons who (offense), how many do you think will be arrested?" Grasmick and Milligan (1976) and Grasmick and Appleton (1977) used less traditional indices of perceived severity for generalized other by asking respondents to indicate their agreement with statements that "people doing (offense) will probably get caught by the police." It is difficult to interpret results using this method. For example, what does it mean in terms of

perceived severity to "mildly agree" that someone would "probably get caught?"

Researchers who measure perceived certainty using only this method believe that potential offenders perceive their own certainty of punishment to be the same as the certainty of punishment of others. This assumption is very likely untrue. Indeed, research indicates that there are differences in these perceptions (e.g. Bailey and Lott, 1976). A potential offender may believe that, in general, people have a high probability of being punished for a given offense, yet believe that his or her own risk is quite minimal. Conversely, it is possible to perceive one's own risk as higher than that of others. Although the perceptions of risk for self and for others may be quite similar for many individuals, perceptions of certainty for self are clearly the relevant variable in deterrence research.

Recognizing some of these limitations of using a generalized other as a referent, other researchers have measured perceptions of the certainty of punishment with respect to a "person like the offender." Waldo and Chiricos (1972) also included this type of assessment in their study, as did Silberman (1976) and Teevan (1976). In these studies, questions generally take the form of asking the respondent "how likely is it that the police would catch someone like yourself if they (offense)?" The exclusive use of this method assumes that potential offenders' perceptions of risk for someone "like themselves" are commensurate with their own perceived risks. This may be true. However, different respondents may use different criteria for deciding who is or isn't similar to themselves. Therefore, although for some individuals this assessment may be an appropriate proxy for personal perceived risk, for others it is not. There is no way of determining how closely these assessments reflect personal perceived risk.

The most legitimate referent for measuring perceived certainty as it relates to deterrence is the self. What an individual perceives to be his or her own chances of punishment are certainly what matter most to someone contemplating an offense. Burkett and Jensen (1975) used a simple version of this method by having respondents indicate the level of their agreement with the statement "if I were to (offense), I would probably get caught." The problem of interpreting these responses has already been mentioned. Most researchers have used a more appropriate index by having respondents estimate the likelihood that they would be punished if they committed an offense. These include Teevan (1976, 1977a); Kraut (1976); Bailey and Lott (1976); Grasmick and Bryjak (1980); Richards and Tittle (1982); Grasmick and Green (1980, 1981); Minor and Harry (1982); Paternoster, et al (1983); and Saltzman, et al (1982). Likelihood of punishment was generally evaluated qualitatively (i.e., by very likely, very unlikely, etc.), or quantitatively (i.e., 50%, 25% probabilities).

A clearly inappropriate measure of perceived certainty was used by Meier and Johnson (1977). They asked respondents whether or not (marijuana) laws were strictly enforced in their community. This

technique gives little information about certainty, inasmuch as it neglects to define enforcement or what constitutes strict enforcement.

Paternoster, et al (1982) examined the results of a number of perceived previous deterrence studies which looked at risk. Specifically, they looked at differences in the measurement methods used, types of punishments measured, and techniques of statistical the analyses. They noted that the greatest support for the deterrence doctrine had been found in studies where the respondent indicated his or her own chances of punishment. The strongest evidence was found when ordinal level rather than interval level self-referenced measures were used.

<u>Perceived severity of sanctions.</u> There appears to be little consensus in the literature on how to define perceived severity and how it should be measured. Researchers have measured the likelihood of receiving maximum penalties, the chances of incarceration after conviction, and how big a problem punishment would be, and labeled all of them the perceived severity of sanctions. Following is a discussion of various methods used to assess perceived severity of punishments.

Several researchers have assessed the perceived severity of punishments by asking respondents how bad they felt the expected consequences of punishments were for offenders in general (Meier and Johnson, 1977) or for themselves (Bailey and Lott, 1976; Teevan, 1977a, 1977b; Grasmick and Bryjak, 1980; Grasmick and Green, 1980, 1981). Teevan (1976, 1977a) asked respondents how bad they thought it would be

if they were caught, and Teevan (1977b) asked respondents to predict what sorts of (bad) things would happen to them if they were jailed. Bailey and Lott (1976) asked respondents to indicate how their friends and families would react to their incarceration (i.e., social sanctions). Meier and Johnson (1977) asked how strict courts were in their treatment of offenders as their measure of perceived severity. Finally, Grasmick and Bryjak (1980) and Grasmick and Green (1980, 1981) asked respondents to indicate how big a problem in their life the punishments which they would expect to receive for committing specified offenses would be for them. In this case, no record was made of the actual penalties that were being evaluated by the respondents.

Another strategy used to measure perceived severity has been to ask what the usual punishments are for certain offenses or to assess whether participants believe that offenders would receive a maximum penalty, with the researchers judging the relative severities of punishment options. Researchers using this method include Silberman (1976) who used the likelihood that an offender would receive a maximum penalty as an indicator of perceived severity of sanctions. Teevan (1976, 1977a, 1977b) asked for the usual punishment given for an offense, as did Salem and Bowers (1970). Jacob (1980) and Waldo and Chiricos (1972) assessed whether respondents knew the maximum penalty for committing given offenses, a measure which seems more descriptive of the knowledge or awareness of penalties than of the perceived severity of sanctions. Kraut (1976) measured expected consequences of criminal activity, using options which had previously been rank-ordered by judges in a pre-test.

Similarly, Paternoster, et al (1983) asked respondents what they thought would happen to them if they were arrested.

All of the studies mentioned above used inappropriate indices of perceived severity. It is impossible with these data to describe the perceived severity of any particular penalty in quantitative terms. In addition, it is difficult to imagine how some of these measures were construed as being perceived severity of punishments by the researchers who used them.

Other researchers have attempted to develop scales of perceived severity of sanctions by having respondents in some way compare the severities of a variety of sanctions. Buchner (1979) had judges make paired comparisons of penalties to develop regression equations predicting perceived severity from type of sentence. However, the developed equations were very imprecise as they treated a range of penalties (e.g. 3 to 20 months in prison) as having the same severity value, an assumption which is difficult to justify a priori. Shelly and Sparks (1980) had prisoners make categorical ratings of the severity of a range of penalties to develop scales of sanction severity.

A method which has been used by a number of researcher is that of magnitude estimation or psychophysical scaling (Hamblin, 1974; Lodge, 1981). Hamilton and Rotkin (1979) and Hamilton and Rytina (1980) used this method to scale perceived severities of penalties. Erickson and Gibbs (1979) used magnitude estimation techniques to develop equations predicting the perceived severity of fines and probation, jail, and

prison sentences (see also Williams and Gibbs, 1981; Warr, et al, 1982; Warr, et al, 1983). Sebba (1978) also used magnitude estimation techniques, but failed to present prediction equations.

Much of the past research which pertains to the perceived severity of sanctions has used rather crude measures of that property. This lack of appropriate measures has made it difficult to draw clear conclusions about the role of perceived severity in deterrence. In addition to the problems with past research that have already been cited, the problems inherent in using the generalized other as a referent rather than the self exist for these data as they did for data regarding perceived certainty. While many of the poorer measures did use the self as a referent, all of the studies using magnitude estimation employed ratings for generalized others. Using measures which rate perceived severity in general assumes that particular punishments are perceived of as being equally severe for all people. It is very unlikely that this assumption is valid.

<u>General criticisms of past perceptual research.</u> The research conducted to date on perceptual variables in deterrence research has a variety of methodological weaknesses in addition to the specific problems already mentioned. A concern present in the measurement of all variables has been that perceptions have often been assessed with regard to others rather than to the self. The relevance of perceptions of risk for others to the prediction of personal actions is somewhat questionable. Another major issue is that the vast majority of research has been conducted using very unrepresentative populations. Studies have almost exclusively

used general population samples, focusing particularly on the ubiquitous college student (e.g. Sebba, 1978; Waldo and Chiricos, 1972; Saltzman, et al, 1982; Silberman, 1976; Bailey and Lott, 1976; Kraut, 1977). One group of studies used a more representative general population group, employing a very large random sample of respondents (Erickson, et al, 1977; Erickson and Gibbs, 1978; Jensen, et al, 1978; Erickson and Gibbs, 1979; Williams, et al, 1980; Williams and Erickson, 1981; Williams and Gibbs, 1981; Warr, et al, 1982; Warr, et al, 1983).

Ideally, deterrence research would focus on individuals contemplating committing offenses. However, it is virtually impossible to actually identify this group. While general population groups certainly include some of these people, it is impossible to determine what proportion is responding to deterrence. Because the groups surveyed have likely not included large numbers of persons either contemplating committing serious offenses or with a history of committing such offenses in the past, past studies have gathered perceptual data using fairly minor reference offenses (e.g. marijuana smoking, speeding, cheating on exams). It may not be legitimate to assume that the mechanisms operating to prevent potential offenders from committing serious offenses are identical to those preventing them (or not preventing them) from committing minor offenses. Surely it is these more serious offenses which are of the greatest concern to criminal justice system policy makers.

Research Objectives

Ultimately, the practical goal of deterrence as a criminal justice policy must be to reduce the incidence of crime. The criminal justice system often assumes the viability of deterrence when formulating changes in policy. This may be done, for example, when penalties are made more severe, punishment is made more certain (e.g. by increasing patrols to make detection more likely), or publicity campaigns make the public more aware of penalties (e.g. by publicizing a new law introducing mandatory sentences when a gun is used in the commission of a felony). To what extent, however, do such changes in policy actually act to lower the crime rate?

The magnitude of deterrent effects can be affected by a number of variables. As has been discussed, these include the severity of punishment, the certainty of punishment, the celerity of punishment, and the degree of awareness that the population has about the deterrent policies (i.e. penalties). Changes in criminal justice policy can be geared to influence any one or more of these variables. In order to obtain an estimate of the effects of policy changes on deterrence, all of these factors must be assessed. However, this presents a very difficult task.

Objective measures of deterrence variables can be obtained using a variety of methods. The celerity of punishment is fairly easy to measure by comparing dates of offense, arrest and punishment. Severity of punishment can be assessed by simply comparing levels of sanctions (e.g.

5 years in prison is more severe than 2 years in prison). Certainty of punishment can be measured by comparing numbers of offenses with convictions, although it is difficult to measure accurately because of the differences between actual and reported crimes.

When estimating deterrent effects of policies, however, subjective rather than objective indices are most important. In fact, the awareness of existing policies can only be measured from a subjective standpoint.

There is clearly a need for further research on the perceptual properties of deterrence. Previous studies have generally used limited non-criminal populations, focused on minor offenses and asked for estimates of perceived risk for aggregate others instead of for self. One goal of the present study was to develop more appropriate measures of these perceptual variables.

Specific Research Goals

The following study was conducted in order to gain some knowledge about the relationships between ovjective and perceived properties of punishment. Specifically, this research addressed the following areas:

- 1. the perceived severity of criminal sanctions
- 2. the perceptions of risk upon the commission of an offense
- 3. the accuracy of perceptions of personal risk

The methods used in this study were designed to overcome some of the problems present in prior studies. Measurement of the perceived severity of sanctions was done using magnitude estimation techniques which provide a clear definition of perceived severity. This method also allows direct

.

comparisons to be made between different levels of sanctions and across sanction types. In addition, in the present study perceptions of severity were made using the self as a referent, clearly the most relevant referent for deterrence research.

Perceptions of personal certainty of punishment were obtained with respect to a range of levels of criminal justice system penetration and for specific offenses. Furthermore, this research included estimates of the levels of sanctions necessary to deter criminal behavior, an issue which has had little attention in the literature.

Knowledge or awareness of sanctions has been all but ignored by most deterrence researchers. One type of awareness was assessed in this study by examining the accuracy of perceptions of risk.

The current research was conducted using an identified offender population. This included offenders who had not been previously deterred by the threat of incarceration, as well as those who had not been to prison. This was done in order to explore the effects of prison experience on perceptions and to increase the likelihood that the sample would include respondents likely to contemplate committing crimes. In any event, past research has focused most on groups of people less likely to commit serious crimes (e.g. middle to upper socioeconomic status, well educated, etc.). It is necessary at this point to assess the perceptions of individuals most likely to offend. Comparisons of the perceptions of the traditionally deterred with those of the undeterred may be a useful strategy for learning about the mechanisms involved in deterrence.

There are several research questions which the study addressed:

- 1. How do the perceived severities of different levels of a sanction compare?
- 2. How do the perceived severities of different types of penalties compare?
- 3. What do individuals perceive to be their risk of punishment (i.e., arrest, conviction, incarceration) upon the commission of an offense?
- 4. What sanctions are necessary to deter individuals from offending?
- 5. What are the experiential effects of incarceration on perceptions of risk?
- 6. How accurate are perceptions of risk of punishment?

Needless to say, there are many other relationships between deterrence variables which can be explored. This study was an attempt to measure perceptual variables more precisely so that future research can be conducted to more extensively evaluate the role of these variables in deterring criminal behavior.

CHAPTER 2

METHOD

Participants

Sampling

Participants were sampled from a variety of offender groups. This was done in order to obtain a sample of respondents with a range of criminal histories and a variety of experiences with criminal sanctions. The following procedures were used to obtain the sample.

<u>Prison inmates.</u> A simple random sample of 48 inmates was selected from all residents at the State Prison of Southern Michigan. Sampling was done from a computer printout listing all inmates residing in the institution at the time of sampling. All inmates were male.

<u>Probationers.</u> A sample of 40 male probationers was obtained. Participants were chosen from all male probationers convicted of felony offenses who reported to their probation officer on sampled days. Each probationer was asked by his probation officer if he would be willing to

participate in the study. If he agreed to participate, he was then referred to an interviewer and became part of the sample.

Participants were selected from an urban area (Detroit/Wayne County) and a mid-size city (Lansing/Ingham County) in proportions chosen to roughly reflect the numbers of probationers in similar areas from across the state. Approximately 62.5 percent of the sample was from Detroit and 37.5 percent was from the Lansing area.

<u>Parolees.</u> A sample of 42 male parolees was obtained. Participants were chosen in basically the same manner as the probationers. Once again, participants were chosen from individuals reporting to their parole officer on sampled days. Approximately 57 percent of the sample was obtained from Detroit (Wayne County). This sample was composed of individuals reporting to the East and West region parole offices and to the Drug Unit, which dealt specifically with drug offenders. Approximately 43 percent of the sample was obtained from Lansing (Ingham County).

Jail inmates. A sample of 15 male jail inmates was obtained. All inmates were selected from the population at the Ingham County Jail. Attempts to conduct interviews using Wayne County Jail inmates were unsuccessful due to manpower limitations at the facility. Participants were sampled from all male inmates charged with felony offenses and awaiting final disposition of their cases. These were persons who had committed unbailable offenses, could not post bail because of financial constraints, or were otherwise caused to remain incarcerated prior to
sentencing. A list of all eligible inmates compiled by the Jail Administrator's office was used to select the participants.

Representativeness of sample. The sampling procedure was designed such that the participants would be as representative as possible of their respective offender groups, given the constraints of the research procedure. However, given the small number of participants selected in each offender group, caution should be used in generalizing the responses of any sample offender groups to the entire offender group from which they were sampled. For example, prison inmates were selected only from the State Prison of Southern Michigan and consequently did not likely represent offenders at other institutions, particularly at minimum security facilities. Similarly, jail inmates were sampled only from the Ingham County Jail and were very likely different from their counterparts at Wayne County Jail in Detroit.

It should be remembered, however, that it was not intended that the sample be absolutely representative of all criminal offenders. Rather, the sample was gathered in order to measure the perceptions of a range of types of criminal offenders with a range of criminal histories. This goal was met by the sampling procedures.

Demographic and Background Information

The sample consisted of a male offender population composed of 48 inmates, 42 parolees, 15 jail inmates and 40 probationers. Demographic and background data were collected primarily to describe the participant population and to define groups for comparison in the analyses of other data sets. This information is presented below for each offender group (i.e., probationers, jail inmates, prison inmates, parolees) and for the sample as a whole.

Participants were distributed across locations as shown in Table 1. The racial breakdown of the participants is presented in Table 2, along with their mean ages. Thirty percent of the participants were White, and 70 percent were Black (67.1%) or of some other racial background (2.9%).

The participants had been convicted of a wide range of offenses. Approximately 52.3 percent had committed assaultive offenses, with the remaining 47.7 percent having committed property, drug, or other non-violent offenses. A more detailed description of the distribution of types of offenses is presented in Table 3. Prison inmates, as a group, committed mostly very serious offenses. In contrast, probationers committed the lowest proportion of serious offenses of the offender groups.

A total of 70.3 percent of the participants had been in prison, serving an average of 1.7 terms and 65.5 total months. The remaining 29.7 percent had served no time in prison. By definition, all parolees and prison inmates had been in prison. Sixty percent of the jail inmates had been in prison, while only a very small percentage (7.5%) of probationers had experienced prison. Those probationers who had been incarcerated had served much less time in prison, on the average, than did individuals in the other offender groups, indicating a less serious criminal history.

A total of 51 percent of the participants had been sentenced to serve jail terms, serving an average of 8.9 total months in jail. Jail

Location of Interview by Offender Status

	Wayne County 	Ingham County	SPSM
Jail Inmates	-	100% (n=15)	-
Prison Inmates	-	-	100% (n=48)
Probationers	65% (n=26)	35% (n=14)	-
Parolees	57% (n=24)	43% (n=18)	-
TOTAL	35% (n=50)	32% (n=47)	33% (n=48)

Race and Age of Participants

		Race	
	White	Non-White	Years
Jail Inmates	33.3%	66.7%	30.1
Prison Inmates	32.6%	67.4%	32.6
Probationers	22.5%	77.5%	24.3
Parolees	33.3%	66.7%	27.5
TOTAL	30.0%	70.0%	28.5

Offenses Committed by Participants

	Jail Inmate	Prison Inmate	Proba- tioner	Parolee	TOTAL
Murder	6.7%	22.2%	-	10.3%	10.3%
Sex Offense	-	24.4%	10.0%	5.1%	11.7%
Robbery	13.3%	24.4%	5.0%	28.2%	17.9%
Weapons	-	4.4%	7.5%	7.7%	5. 5%
Assault	6.7%	6.6%	7.5%	7.7%	6.9%
Drugs	13.3%	4.4%	15.0%	5.2%	8.3%
Burglary	20.0%	8.9%	27.5%	17.9%	17.2%
Property Damage	13.4%	4.4%	5.0%	-	4.2%
Larceny	6.7%	-	10.0%	10.3%	6.5%
Fraud, False Pretenses, Forgery	13.3%	-	7.5%	5.1%	4.8%
Misc ellane ous	6.7%	-	5.0%	2.6%	2.8%

Prison and Jail Experience of Participants

	Jail Inmate	Prison Inmate	Proba- tioner	Parolees	TOTAL
Percentage with prison experience	60.0%	100.0%	7.5%	100.0%	70.3%
Informat	ion on Off	enders wit	h Prison H	Experience	
Average number terms in prison	1.7	1.7	1.0	1.8	1.7
Average time served in prison (months)	61.5	78.3	18.7	55.6	65.5
Percentage sentenced to jail	60.0%	64.4%	55.0%	48.3%	51.0%
Informa	tion on Of	fenders wi	th Jail Ex	perience	
Average time served in jail (months)	11.8	9.9	4.7	9.6	8.9

histories were much more consistent across offender groups than comparable data on prison history, with 48 percent to 60 percent of all offender groups having served jail terms. Once again, however, probationers had served the least amount of time incarcerated on the average. Further information is presented in Table 4.

Measures

Data were collected on the perceived severity of sanctions, and on the perceptions of personal risk in the commission of an offense. Descriptions of each of the instruments will be discussed separately in the following sections. A summary of the instruments used is presented in Table 5.

Perceived Severity of Sanctions

This section was designed to assess the relationships between the perceived severities of différent levels of penalties and between different types of penalties. Respondents were asked to estimate how severe they perceived certain penalties to be to them in relation to an anchor of a one year sentence to jail. The anchor was designed to be a sanction somewhere near the middle of all values being compared. The choice of one year in jail as an anchor was made initially based on the use of a similar anchor by Erickson and Gibbs (1979). Preliminary tests of the instrument indicated that one year in jail was, indeed, somewhere in the middle of the possible range of severity for all penalties.

Initially, ratings were made of the perceived severity of being sentenced to one year in jail. This was done in order to assess the relative perceived severity of the anchor across raters. Participants

Summary of Measures

		Measure	Information Obtained
Ι.	Per	ceived Severity of Sanctions	
	Α.	Severity Ratings	A measure of the perceived relative severities of several types of criminal sanctions (probation, jail, prison) across a range of levels.
	В.	Jail Severity	A 3-item scale measuring the subjective severity of a one-year sentence to jail; the anchor used in the severity ratings.
	с.	Time Served Estimates	A measure of the amount of time which respondents believed they would actually serve of a given probation, jail, or prison sentence.
II.	Per	sonal Assessment of Risk	
	Α.	Probability of Criminal Justice System Contact	A measure of the perceived probabilities of arrest, conviction, and imprisonment upon the commission of an offense.
	В.	Expected Lengths of Sentence	Participants' expected prison sentence if imprisones for reference offenses (i.e., breaking and entering or armed robbery) and respondents' perceptions of the lengths of sentences received by others.
	С.	Level of Deterrability	A measure of the strength of sanctions required before respondents believed they would not commit the reference offenses.

rated their feelings about being sentenced to one year in jail along three continua. These were whether being sentenced to one year in jail would:

- 1. not cause a problem in their lives . . . cause great hardship in their lives
- 2. be easy for them to handle . . . be impossible for them to handle . .
- 3. not bother them at all . . . bother them a great, great deal.

This three item scale was designed to assess the feelings that each participant had about being sentenced to one year in jail in qualitative terms. Respondents were asked to assign a number score of 100 to the feelings they had about being sentenced to one year in jail (i.e., those feelings that they had described in the three item scale).

Respondents were then asked to assign numerical values to how severe they felt other penalties would be to them, given that their feelings about being sentenced to the anchor (one year in jail) had a score of 100. Penalties were presented in terms of the severity of being <u>sentenced</u> to them, rather than actually serving them.

Ratings were made of the perceived severity of four levels of probation, two levels of jail (plus the initial one year in jail), six levels of prison (including life in prison), and the death penalty. The sanction levels rated are presented in Table 6.

The first two sanctions presented (three years in prison and nine months on probation in all cases), were used for "practice." These items

Sanction Levels Rated

Probation	Jail	Prison	Death Sentence
6 months	6 months	l year	
l year	l year	2 years	
5 years	2 years	5 years	
		20 years	
		Life	

were used to give the respondent an opportunity to learn how to make the ratings and to establish a range of values.

All other sanctions were presented in one of four random orders to offset any possible order of presentation effects.

<u>Time Served Estimates.</u> In order to make it possible to compare ratings of the perceived severity of receiving sentences with perceptions of the severity of actually <u>serving</u> different levels of sanctions, respondents were asked to estimate how long they thought they would actually serve if they were given a specific penalty.

For example, respondents were asked how long they thought they would actually be on probation if they were told to serve six months on probation, how long they would actually be in jail if they were told to serve two years in jail, how long they would actually be in prison if they were told to serve five years in prison, etc. For the death penalty, respondents were asked if they thought that they would actually be put to death (assuming that Michigan had a death penalty), or if they would instead serve some period of time in prison. If they thought that they would serve some time in prison, they were asked how long a period of time they would serve. Estimates of actual time served were made for each of the sanction levels presented in the perceived severity questionnaire.

If the respondent indicated that the ratings depended on whether or not good time would be earned, he was told that he should make the ratings based on what he thought would happen to him if he received those sentences. This, of course, would depend on such factors as the actual

type of crime that he would be receiving the sentence for, if the offender received a sentence under the habitual offender statute, and other variables which the offender might believe to be relevant to whether or not an individual would be eligible for good time.

Personal Assessment of Risk

A questionnaire was developed to measure the personal assessment of risk of contact by the criminal justice system if an offense is committed. Participants were asked to imagine that they had just committed a specified crime and were then asked their perceptions of the probabilities of certain events. The sequence of questions was first asked with participants pretending that they had committed a breaking and entering of a store. It was then repeated having the participants imagine that they had committed an armed robbery. Participants were given no further details of the hypothetical crimes, other than that they acted alone. Any other details of the offense would be determined by the offender's prior experience with that type of crime, whether he would be likely to carry a gun, whether he thought he would plan that type of offense in advance, and other such factors.

Respondents were asked to estimate, for both offenses, what they believed to be their:

- 1. probability of arrest
- 2. probability of conviction if arrested
- probability of being sentenced to prison if convicted

These estimates were obtained by having respondents choose a number between 0 (no chance) and 10 (definitely), inclusive, which reflected their perceived probability of the occurance of that event.

Participants were then asked to estimate what they thought their prison sentence would be if they were sentenced to prison, as well as how much time they thought people usually served in prison if they were sentenced to prison for a similar offense.

An additional set of questions was included to assess what penalties actually prevented (or would prevent) the participants from committing each offense. Respondents were asked to answer these questions assuming the probabilities of arrest, conviction, and incarcertion estimated in the previous section. In order to provide the participant with a probability figure in these questions, the actual estimated probabilities were multiplied together to obtain a figure representing the perceived joint probability of arrest, conviction, and incarceration. For example, if a participant estimated a 30 percent probability of arrest (assigned a score of three), a 50 percent probability of conviction given arrest (assigned a score of 5), and a 90 percent probability of incarceration given conviction (assigned a score of nine), then he would actually have a perceived probability of arrest, conviction, and incarceration of 13.5 percent $(.50 \times .30 \times .90)$. If any of the probability estimates in the equation were zero, then a very low (i.e., 1%) figure was used to estimate the joint probability, as a zero percent figure would have made the questions meaningless. The following questions were included:

- 1. If X-offense was not against the law, would you do it?
- 2. If X-offense was against the law, but there was no penalty, such as fines or prison for doing it, would you do it?
- 3. If you had a Y chance (Y=p[arrest] x p[conviction] x p[incarceration]) of being convicted and serving:
 - a. (your perceived average prison time served for X-offense)
 - b. 2 1/2 years if for B&E, 5 years if for Armed Robbery
 - c. (1 1/2 times perceived average time served
 for X-offense)

would you do X-offense?

4. If there is a Y chance that you will be convicted and sentenced to prison, what is the minimum prison sentence it would take to keep you from committing X-offense?

The questions were designed to represent increasing levels of the strength of deterrence. Individuals who answered "no" to question number one would not be an appropriate target of policies designed to lower the incidence of X-offense by increasing prison penalties. These people would already be prevented from committing X-offense by some internal moral order, or consideration of existing social standards. Question number 2 assessed the deterrent effect of the simple existance of legal penalties. Persons who answered "yes" to question number one and "no" to question number 2 may be evaluating the appropriateness of behaviors primarily in terms of whether or not there is a law against them, rather than on the basis of some internal ethical standards. In addition, they

may be deterred by the prospect of being arrested (because the act is illegal) and the ensuing contact with the criminal justice system.

The remaining questions were aimed at persons who respond to legal <u>penalties</u> as deterrents to antisocial behavior. These questions were designed to obtain an estimate of the actual level of penalties needed to deter the respondent from a certain offense, given what that individual believed to be his actual risk of incarcertion if he committed that offense.

The entire sequence of questions was asked for two different crimes for each participant. Breaking and entering of a store was used as a representative property crime, and armed robbery was used to represent assaultive offenses. Ideally, a broader range of offenses would have been included in the questionnaire. However, the limited amount of time available to administer the questions precluded this possibility. Fairly serious crimes were chosen for the offense categories. It was felt that the most meaningful information could be obtained about the effectiveness of existing policies if crimes that are more costly to society were used (as opposed to marijuana smoking, exceeding the speed limit, and other such offenses which tend to be relatively minor targets of policy makers).

Procedures

Interviewers

Undergraduate Michigan State University students were hired as interviewers. Six students were selected from the pool of applicants after being interviewed and participating in an interview role-play. Each student received psychology research credits for their participation in the project.

Training

The interviewers underwent two sessions of approximately one and one half hours each of in-class training before beginning any actual interviews. During this time, the general nature of the project was covered and the interview process and data collection procedures thoroughly explained. Role play exercises were used to provide interviewing practice. In addition, trainees were required to administer the questionnaire to at least two individuals between the first and second training classes. After the in-class training was completed, each student met with the experimenter for another role-played interview and an individual critique. Each student received approximately six hours of total training.

Supervision

All interviewers were closely supervised by the experimenter during all interviews. Initially, the experimenter sat in on interviews in order to provide immediate feedback and respond quickly to any problems. This assured that all interviews were being conducted correctly. Supervision became less intensive as the interviewers gained experience and confidence, and as the experimenter (supervisor) also became involved in conducting interviews. However, supervision continued to be provided during all interviews. In addition to monitoring the interviews, the supervisor also checked all incoming data to insure that all information was being recorded correctly.

Administrative Agreements

The cooperation of the Michigan Department of Corrections was obtained in order to conduct the interviews. Initial contacts were made through William Kime, Deputy Director of the Program Bureau. He, in turn, contacted State Prison of Southern Michigan Warden Barry Mintzes to obtain permission to conduct interviews of prisoners. The experimenter then made the specific arrangements for conducting the interviews with Warden Mintzes' Administrative Assistant. Mr. Kime also made the necessary contacts in order to obtain permission to interview parolees and probationers. The experimenter then made contacts with specific parole and probation offices to make arrangements for conducting interviews.

Data Collection

The data collection instruments were administered using an interview format. The interview and instruments were piloted on members of the subject population (Ingham County jail inmates) as part of the development phase and were then refined into their final form. Interviews were designed to be completed in one half hour or less. The actual length of the interview depended, however, on the interviewing style of the interviewer, the general cooperativeness of the participant, the time in which it took the participant to understand the procedures, and other such variables.

<u>Prison inmate</u> interviews. The names of the inmates who were interviewed were randomly selected from a roster of all inmates residing

at the State Prison of Southern Michigan. Initially, a list of the inmates was provided to the prison staff who then made sampled arrangements to have the prisoners at the interview site. Because of some confusion that this method created, in that the inmates did not always know that they would be meeting with the research staff, another method was used for subsequent interviews. Prior to the interviews. inmates were contacted through the prison mail system. A letter was sent to them explaining the purpose of the interview and asking for their participation on the scheduled date. A stamped and addressed reply postcard was enclosed with the letter. Approximately 80 percent of the contacted inmates returned the reply postcard, all answering that they would be interested in participating. This compared to an approximately 67 percent participation rate when inmates were not contacted prior to This lower rate appeared to be due in part to the the interview. inability of the inmates to schedule time for the interviews without advance notice, and the possibility that the sampled inmates in one cell block (n=4) may not have been notified by the prison staff that they could participate in the interviews. In general, the inmates provided a very cooperative population of respondents, and were eager to have the opportunity to talk with the interviewers.

The schedule of interviews was provided to the prison staff prior to the interview date. They then made arrangements to bring the inmates to the interview location. Interviews were conducted in three complexes within the prison. Prisoners housed in the Central prison were interviewed in private rooms off of the Control Center. The Control Center was a large open area with a guard station at one end where prisoners were brought when they had a visitor, got in trouble, etc. Inmates in the North complex were interviewed in a general meeting area where they would also normally meet with visitors. Interviews were conducted at tables situated at one end of the visiting area. These tables were generally reserved for meetings with lawyers, and thus offered some privacy. Residents of the Trusty Division were interviewed in empty rooms near the Control Center/main office of that complex.

Assignment of participants to interviewers was made on a random (i.e., "first come, first serve") basis.

<u>Probationer and parolee interviews.</u> Interviews with parolees and probationers were conducted in essentially the same manner. Schedules of reporting days were obtained from all participating parole and probation offices. Arrangements were then made with the parole and probation offices to interview individuals reporting on sampled days. The experimenter and/or the office supervisor explained the nature of the study to the probation/parole officers and detailed the referral procedures. Probation/parole officers were asked to refer eligible clients to the research staff for an interview upon termination of the regular meeting. Referrals were then routed to the next available interviewer. Interviews were generally conducted in the private offices of probation or parole officers who were not present on sampled days.

In order to encourage participation, potential participants were advised that if they decided to participate in an interview, their names

would be placed in a "drawing" for a fifty dollar prize to be awarded at the termination of the study.

Jail inmate interviews. Interviews with jail inmates were conducted in rooms located near the guards' station. These were either rooms used for meetings with lawyers or empty storage rooms. As interviewers became available, guards brought additional participants to the interview location from their cells, and returned individuals who had completed the interview. The names of the individuals to be interviewed were taken from a list of all eligible residents compiled by the jail administrative staff.

Interview Process

Upon reporting to the interview, the purpose of the interview was explained to the participant by the research staff, and the confidentiality and anonymity of responses assured. All participants signed a participation agreement to indicate their willful participation and their understanding that their responses would be held confidential.

Initially, the interviewer recorded background and demographic information about the participants. After this information was collected, the Scale of Perceived Severity instrument was administered. The procedures for completing the scales were carefully explained, and example ratings were presented to the participant. The participant recorded his responses to the questions on a separate answer sheet. It was hoped that this method would encourage honest answers, and discourage "bragging" or fear of having answers negatively evaluated by the interviewer. The questions pertaining to the expected length of time served were then asked. The interviewer recorded the respondent's answers to each of these items.

The questions pertaining to perceptions of personal risk were presented next. The questions were asked first with the participant imagining that he had committed a breaking and entering of a store, and then repeated using armed robbery as the reference offense. All responses were recorded by the participant on a separate answer sheet.

Upon completion of the interview, respondents were thanked for their participation and cooperation, and any questions they may have had about the interview were answered.

Reliability of Measures

It was not possible to obtain a measure of test-retest reliability. Parolees and probationers were interviewed on a walk-in basis and it was not practical to reinterview prison and jail inmates. Similarly, given the interactive nature of the iinterview, it was not feasible to get an accurate measure of inter-rater reliability by having multiple raters score an interview. However, efforts were made to control interviewer differences through the training process and subsequent supervison of data collection. In addition, all coded response sheets were checked against original data records by the experimenter in order to maintain accuracy and consistency in coding decisions.

CHAPTER 3

RESULTS

The data analyses for this study focused on three major areas. First, data were used to develop scales of the relative perceived severity of criminal sanctions across varying sanction levels and types. Second, information was used to describe how the sampled groups of criminal offenders perceived their risk of contact with the criminal justice system. These data were also used to make an estimate of the sanction levels at which these individuals would be deterred from committing certain offenses. The third area of investigation was a comparison of offenders' perceptions of risk with official estimates of actual risk.

The results of the data analyses are described in the following sections, with results presented separately for each area measured. In all cases where analyses are reported as significant, it can be assumed that this is at the p < .05 level or better.

Perceived Severity of Sanctions

The deterrence doctrine purports that as the severity of sanctions increases, the likelihood of the commission of an offense decreases. In this study, data were analyzed to obtain a measure of how severe respondents perceived a variety of criminal sanctions to be. This made it possible to gauge the relative deterrent strength of different sanction levels and types. For these analyses, responses were generally examined in aggregate for the various offender types.

Severity Ratings

A total of 135 interviews provided perceived severity ratings. Of these cases, nine percent of the cases were eliminated for a variety of reasons. These included cases where the scaling task had apparently not been understood or where data were improperly recorded. Some sets of responses which did not appear to "make sense" were included in the analyses, nonetheless. Particularly, there were several cases where there was little variance in the responses across levels of sanctions or However, when these individuals were across types of sanctions. questioned about their responses, they indicated that they felt that any amount of "time" was the same to them. In other words, the actual length of sentence was not as important to them as the factor of incarceration. When these types of explanations were provided, it was presumed that the responses given by the participants reflected their actual perceptions, and consequently, they were included.

It has been estimated that between three and five percent of participants are unable to grasp the idea of proportionality demanded of the scaling task (Lodge, 1982). In this study, fewer than ten percent of the rating sets were eliminated for <u>any</u> reason, including improper instruction by the interviewers. It appears, then, that this population was able to understand and execute the scaling task quite well.

In the analyses, ratings of "0" were recoded as "1's" so that log transformed scores could be recorded for these ratings. This means that scores of "nothing," or "0," and scores of "one hundredth the severity of a one year sentence to jail," or "1," were made equal in these analyses. It was felt that this change would cause no real difference in the meaning of the data, while making more ratings interpretable. This change affected only a very small proportion of the ratings.

The procedures followed to analyze the severity ratings were those outlined by Lodge (1982). First, all ratings were transformed to log scores. The arithmetic mean for each sanction type was then calculated for each sanction level. These aggregated data provided a total of three data points for probation ratings and three data points for jail ratings (including the assumed rating of 100 for one year in jail). Ratings for life sentences in prison and for death sentences were not included in the prison ratings because of the large number of "uncodeable" responses to these stimuli, and the lack of a metric for comparison. Therefore, a total of four data points were obtained for prison ratings. These procedures provided the data necessary to develop prediction equations of perceived severity scores for each sanction. Before proceeding with further analyses, the data were examined to determine whether the data might conform to a simple linear model. A visual inspection of the scattergram of the data points, and a plotting of the rating means indicated that a linear model did not fit the data well. In other words, perceived severity did not appear to increase in linear proportion to the increase in the amount of punishment.

It was anticipated that these data would be most completely described by a log linear equation. This relationship can be described as follows:

$$Y = kS^{b}$$

where Y is the predicted severity score, S is the stimulus (sanction level), b is the exponent which describes the relationship, and k is a constant of proportionality. Or, in its linear form the equation can be read:

$\log Y = b \log S + \log k$.

The SCATTERGRAM procedure of the Statistical Package for the Social Sciencies (Nie, et al, 1975) was performed on each set of data points for each type of sanction. The mean log score was used as the dependent variable and the length of the sanction in months was used as the independent variable. The SCATTERGRAM was repeated using the log of the length of sentence as the independent variable, as well as the perceived length of time served and the log of the perceived length of time served. The SCATTERGRAM procedure performed a simple regression analysis on the data which was used to describe a line of best fit through the data points.

Regression equations which explained the greatest amount of variance were produced using the log of the length of the sentence as the independent variable and the log of the perceived severity rating as the dependent variable. The R^2 values were in excess of .99 for each penalty type, indicating that the equations described the log-linearly transformed variables extremely well.

The equations for each penalty type which were developed to predict perceived severity scores are presented in Table 7. All of the slopes were highly statistically significant and the standard errors of the slopes were low. Graphs of each of these equations are shown in Figures 2 through 4. Figure 5 shows equations for each penalty class plotted on the same graph.

The prediction equations for perceived severity of prison and jail were somewhat similar, while the prediction line for probation scores indicated that probation was viewed as much less severe than equal sentences of jail or prison. The prediction lines for jail and prison severity crossed with a length of sentence of approximately two years. When the sentence was less than two years, prison sentences were perceived of as slightly less severe than jail sentences. At sentences greater than approximately two years, prison sentences were perceived of as more severe than jail sentences, at a ratio which increased as length of sentence increased.

Prediction Equations for Perceived Severity of Penalties

	Prediction Equation	Log Linear Transformation of Equation	R ²	Standard Error of b
Probation	$Y = (3.248)X^{-77}$	log Y = .77 log X + .51159	666.	.02
Jail	$Y = (7.127)X^{1.07}$	log Y = 1.07 log X + .85293	666.	.03
Prison	$Y = (4.792)X^{1.20}$	log Y = 1.20 log X +8050	666.	.03

2.500 PROBATION SENTENCES LOG (LENGTH OF SENTENCE IN MONTHS) ЧŪ PERCEIVED SEVERITY .500 0 1.0004 3.000 2.000 4.0007 (SONITAR LOG (SEVERITY









Figure 4





A graphic presentation of perceived severity scores and levels of sanctions is presented in Figure 6 to illustrate the relative differences in levels of perceived severity for different sanctions. All sanction types are presented and it is possible to compare the different levels of penalties which were perceived of as having the same severity. It was possible to "fill in" values which were not included in the original survey by extrapolating the regression slopes and using different values of severity scores in the prediction equations to predict sentence length (X). For example, it can be seen that a 135.7 year sentence of probation had approximately the same perceived severity as an 8.4 year sentence to jail or a 7.2 year sentence to prison.

Comparisons between penalty types can be made in two ways. First. the length of sentences for various penalties which had the same perceived severity can be compared, as illustrated above. Second, the severity scores of equal lengths of sentences can be compared to indicate how much more or less severe one penalty was than another for any given length of sentence. This information is presented Table 8. Here, severity scores for each penalty type are presented for a range of For example, it can be seen that a sentence of 10.0 sentence lengths. years on probation had a score of 133, or that it was about one and a third times as severe as a sentence of one year in jail. A ten year jail sentence obtained a much higher score of 1204, while a ten year prison sentence had a perceived severity score of 1500. According to these scores, a sentence of 10 years in jail was perceived of as approximately

Figure 6

59

Perceived Severity Values

1			
9,000	2,312.6 yrs	65.3 yrs	48.6 yrs
7,000	1,672.0 yrs	51.7 yrs	36.1 yrs
5,000	1,083.0 yrs	37.8 yrs	27.3 yrs
3,000	560.2 yrs	23.4 yrs	17.8 yrs

1,500	229.0 yrs	12.2 yrs	10.0 yrs
1,250	180.9 yrs	10.3 yrs	8.6 yrs
1,000	135.7 yrs	8.4 yrs	7.2 yrs
750	93.6 yrs	6.4 yrs	5.6 yrs
500	55.5 yrs	4.4 yrs	4.0 yrs

200	17.00 yrs	1.88 yrs	1.86 yrs
175	14.33 yrs	1.65 yrs	1.65 yrs
150	11.75 yrs	1.45 yrs	1.48 yrs
125	9.25 yrs	1.22 yrs	1,27 yrs
100	6.92 yrs	(101.8) 1.00 yrs	(94.5) 1.00 yrs
75	4.88 yrs	.76 yrs	.83 yrs
50	2.90 yrs	.51 yrs	.59 yrs
25	(22) 1.00 yrs		

Probation

Jail

Prison

Types of Penalties

Length of Perc		ived Severity Sco	ore
Sentence (years)	Probation	Jail	Prison
.5	13	49	41
1.0	22	102	95
2.0	38	215	217
5.0	78	573	653
10.0	133	1,204	1,500
15.0	182	1,859	2,440
20.0	227	2,530	3,446
30.0	311	3,907	5,606
40.0	388	5,317	7,918
50.0	461	6,753	10,350

Perceived Severity Score by Length of Sentence

12 times as severe as a sentence of one year in jail, while a similar sentence to prison was perceived of as 15 times more severe than a sentence of one year in jail.

The relative severity of the different penalties varied across sanction levels, with relative ratios increasing as length of sentence increased. The ratio of perceived severity of prison sentences to severity of probation and jail sentences is presented in Table 9 across a range of sentence lengths. It can be seen that the severity ratio of prison to probation was a little over 4 : 1 at the one year sentence level, while it increased to over 22 : 1 with a sentence of 50 years. The ratio of prison to jail severity varied at a less dramatic rate. Prison to jail severity scores formed a ratio of slightly less than 1 : 1 at the level of a one year sentence, which increased to approximately 1.5 : 1 with a sentence of 50 years.

Jail Severity Scale

A perceived severity of jail scale was developed to qualitatively assess the severity of the anchor which was used in the severity ratings, a one year sentence to jail. This Jail Severity Scale consisted of the three items rating the perceived severity of a one year sentence to jail. A reliability analysis was performed on the scale items, producing a Cronbach's alpha of .82, indicating a high degree of internal consistency.

Mean scale scores are presented in Table 10 for each offender group and for all respondents. There were no significant differences between

Ratio of Perceived Severity of Prison Sentences to Perceived Severity of Jail and Probation Sentences

Length of	Perceived severity of prison	Perceived severity of prison
(years)	Perceived severity probation	Perceived severity of jail
.5	3.15	.84
1.0	4.32	.93
2.0	5.71	1.01
5.0	8.37	1.14
10.0	11.28	1.25
15.0	13.41	1.31
20.0	15.18	1.36
30.0	18.03	1.43
40.0	20.41	1.49
50.0	22.45	1.53
Perceived Severity of Jail Sentences

Off en der Status	x	S.D.
Prison-experienced	16.9	9.6
Non-prison experienced	19.7	8.1
Jail Inmates	14.3	9.4
Prison Inmates	15.2	10.2
Probationers	19.7	8.4
Parolees	20.1	7.8
TOTAL	17.8	9.2

.

the mean scale scores of participants with prison experience and scores of participants with no prison experience. In addition, there were no significant differences in Jail Severity Scale scores of participants who had been sentenced to jail before and those who had not served jail terms.

Additional analyses were done comparing mean scale scores of offender groups based on offender status (i.e., jail inmate, etc.). Analysis of variance indicated that there were differences in mean scale scores among these offender groups. Mean scale scores indicated that jail inmates and prisoners did not feel that a sentence of one year in jail would be as bad for them as did probationers and parolees.

The mean scale scores indicated that jail inmates and prison inmates felt that being sentenced to one year in jail would cause them a middle amount of hardship in their lives, would be moderately hard for them to handle and would bother them a middle amount. However, a sentence of one year in jail would be more difficult for probationers and parolees than for jail or prison inmates, causing them more hardship in their lives, being harder for them to handle, and bothering them more. It is clear from the resulting scale scores that the participants did not all feel that a sentence of one year in jail would have the same effect on them. Scale scores ranged from "0," indicating that the sentence would have little effect on the respondent, to scores of "30," indicating that the sentence would have a very severe effect on the respondent.

As was mentioned above, probationers and parolees perceived that a one year sentence to jail would have a more severe effect on them than

did prison or jail inmates. This may be a reflection of the current status of relative freedom of the probationers and parolees as compared to the incarcerated respondents. Jail and prison inmates may not have perceived that a sentence of one year in jail would substantially affect the lack of freedom which their current status already entailed. Probationers and parolees, on the other hand, may have felt that any loss of freedom, which was rather tenuously held, would change their situation more dramatically than did jail and prison inmates.

Although respondents did not perceive the severity of a one year sentence to jail equally, this did not affect the relative severity of sanctions as described by the perceived severity of sanction scales. If all responses were adjusted such that the perceived severities of a sentence of one year in jail would be equal, it could have the effect of changing the intercept, as the arithmetic means of the log transformed rating levels would be changed by a constant factor. If it had been important in this study to examine the variation in perceived severity of a sentence of a one year in jail, another anchor could have been chosen and severity scores assigned to the jail sentence with respect to the new anchor.

Expected Amount of Time Served

The amounts of time participants believed they would serve if given different types of sentences were compared to the length of the sentence to obtain a ratio of sentence length to the perceived amount of time served. These figures are presented in Table 11 for each sanction type and length of sentence.

Ratio of Perceived Amount of Time Served to Sentence Length

Amount of Time Served Probation Sentence

6 months	l year	2 years	5 years	20 years
.93	.90	-	.79	-
	Amc	ount of Time Ser Jail Sentence	rved	
6 months	l year	2 years	5 years	20 years
.83	.80	.78	-	-
	Amo	ount of Time Ser Prison Sentence	eved	
6 months	l year	2 years	5 years	20 years
-	.75	.75	.73	.73

.

Participants perceived that they would serve a greater portion of the length of probation sentences than either jail or prison sentences. They also perceived that they would serve proportionally more of a jail sentence than a prison sentence, although the difference was not enough to be meaningful. In general, participants believed that they would serve proportionally less of a long sentence than they would of a short sentence for all sanction types.

Summary and Discussion

From these data, equations were developed to predict perceived severity scores from the length of a particular sentence. Different equations were developed for each sanction type; probation, jail and prison. Each of the equations was log-linear. In other words, the data indicated that the relationship between the length of a sentence and its perceived severity score was not the same across all levels of the sanction.

A comparison indicated that there were differences between the three developed prediction equations. The equations for jail and prison had exponents greater than one, while the equation for probation had an exponent of less than one. An exponent of one would have indicated that as length of sentences increased, perceived severity increased at a linear rate.

The equation for probation sentences indicated that as the length of a sentence increased, the perceived severity of the sentence did not increase at as great a rate. For example, the perceived severity score

for a sentence of one year on probation was 22, while the perceived severity score for a sentence of two years was 38, a score less than twice the score for a one year sentence.

The equations for jail and prison sentences, however, indicated that as the length of sentence increased, the perceived severity increased at a greater rate. For example, a five year sentence in jail received a severity score of 573, while a sentence of ten years in jail received a score of 1,204, over twice the rating for a five year sentence. Similarly, a five year sentence to prison received a score of 653, while a ten year sentence to prison received a score of 1,500, over twice the score received for a five year sentence.

A comparison of the exponents for the jail and prison severity prediction equations indicated that the perceived severity of prison sentences increased at a greater rate than did the perceived severity of jail sentences. For example, the perceived severities of jail and prison sentences were essentially equal with a sentence of two years. However, the perceived severity of prison accelerated more quickly than did the perceived severity of jail, such that a 50 year sentence in jail was rated was 53 percent more severe than a similar sentence to jail.

It can be seen clearly from these data that probation was perceived to be a much less severe sanction than either jail or prison. For example, it took almost a seven year probation sentence to equal the perceived severity of a sentence of a year in jail or prison. At longer sentence levels, this difference was even more extreme. For example, a prison sentence of ten years was matched in severity only by a very lengthy probation sentence of 181 years.

Although stimuli of up to a two year sentence in jail were used, and the data points were extrapolated to predict lengthy jail sentences, in practice jail sentences are not longer than a year in length. Consequently, relevant comparisons between jail and prison sentences should only be made for jail sentences of one year or less. As were indicated by the data, prison was perceived of as slightly less severe than jail at sentences of one year or less. Although this difference was not great, jail sentences were perceived of as approximately seven percent more severe than prison sentences with a one year sentence, and 19 percent more severe with a six month sentence.

Jail terms are popularly thought of as less severe sanctions than prison terms. However, it appeared that this offender group did not concur with that assessment. In fact, several of the participants noted that they would "take prison time over jail time," citing the overall lack of things to do and rehabilitative programs in jails which were often found in the prison setting. These comments further supported the findings produced by the data.

Personal Assessment of Risk

Data were gathered to assess respondents' perceptions of personal risk upon the commission of an offense. Estimates were obtained of participants' perceived probabilities of arrest, conviction, and imprisonment assuming that they had committed a breaking and entering or an armed robbery. In addition, respondents were asked what prison sentences they would expect to receive if they committed one of these offenses. Furthermore, information was gathered to form estimates of the level of sanctioning necessary to prevent respondents from committing breaking and enterings and armed robberies.

A total of 139 participants completed responses to these measures. Comparisons in perceptions of risk were generally made for groups based on prison experience. Results of the analyses are presented in the following sections.

<u>Perceived</u> <u>Probabilities</u> of <u>Criminal Justice</u> <u>System</u> <u>Contact</u>

Additional probability estimates for conviction and incarceration were calculated from the estimates made of perceived probability of arrest, of conviction given arrest, and of incarceration given conviction. A figure of perceived probability of conviction given the commission of an offense was obtained by multiplying the perceived probability of arrest by the probability of conviction given arrest, such that:

$p(CO) = p(A) \times p(C)$

where CO was conviction given the commission of an offense, A was arrest and C was conviction given arrest. Likewise, the perceived probability of incarceration in prison given the commission of a crime was obtained by multiplying the perceived probability of arrest by the probability of incarceration given conviction. This was described by the following equation:

$$p(Pr) = p(A) \times p(C) \times p(P)$$

= $p(CO) \times p(P)$

where Pr was the probability of imprisonment given the commission of an offense, and P was imprisonment given conviction.

Perceived probabilities of criminal justice contact after the commisstion of a breaking and entering or an armed robbery are presented in Tables 12 and 13, respectively. Results are given in aggregate for all participants, as well as for groups based on prison experience.

Mean comparisons of probability estimates of system contact for breaking and entering were made with participants grouped according to whether or not they had ever been in prison. Using t-tests to compare mean responses, significant mean differences between ratings made by these groups were found for the perceived probability of imprisonment given conviction and for the probability of imprisonment given the commission of an offense. Participants with prison experience rated their chances of imprisonment for a breaking and entering as higher than did participants without prison experience.

No significant differences for these variables were found between the probability estimates made by prison experienced and by non-prison experienced respondents assuming the commission of an armed robbery.

<u>Perceived risk of criminal justice contact for breaking and entering</u> <u>versus for armed robbery.</u> In order to test the significance of the differences between the mean estimates of probabilities of contact for a

Probability of Criminal Justice System Contact - Breaking and Entering

	p(arrest)	p(convict. given arrest)	p(convict. given offense)	p(prison given convict.)	p(prison given offense)
Prison- experienced	.48	.79	.41	.85	.37
Non-prison experienced	.50	.76	.37	. 58	.22
TOTAL	.49	.78	.40	.77	. 32

Ta	Ъ	1	e	1	3
	-	_	~	_	~

Probability of Criminal Justice System Contact - Armed Robbery

	p(arrest)	p(convict. given arrest)	p(convict. given offense)	p(prison given convict.)	p(prison given offense)
Prison- experienced	.60	.88	.56	.91	.53
Non-prison experience	d .65	.87	.57	.88	.52
TOTAL	.62	. 87	. 56	. 90	. 53

breaking and entering versus those for armed robbery, paired t-tests were performed comparing each estimate for breaking and entering with the corresponding estimate for armed robbery. A summary of these results for the entire group of participants is presented in Table 14. Each estimate for armed robbery was significantly different from the estimates for breaking and entering. These differences were in the direction of armed robbery estimates of probability being greater than corresponding estimates of probability for breaking and entering.

These comparisons were repeated for offender groups based on prison experience. As with the total group of participants, armed robbery probabilities were all significantly higher than estimates of risk for breaking and entering. Results are presented in Tables 15 and 16.

Expected Lengths of Sentences

The expected lengths of sentences if incarcerated for a breaking and entering or armed robbery are presented in Table 17. The amount of time indicated for sentences is the length in months of the minimum of the indeterminate sentence received. The average length of sentence expected for a breaking and entering across participants was 67.7 months. The expected length of sentence expected for an armed robbery was much higher; 189.5 months. A paired t-tests was performed to test the significance of the differences between estimates of expected sentences for breaking and entering and for armed robbery. This comparison showed that expected sentences for armed robbery were significantly higher than those expected for breaking and entering.

Armed Robbery versus Breaking and Entering Probabilities - All Cases

	x	df	t
B&E-p(arrest)	.49	1.20	E /0±
RA-p(arrest)	.62	06 [5.49*
B&E-p(convict. given arrest)	.78		
RA-p(convict. given arrest)	.87	138	3.98*
B&E-p(convict. given offense)	.40	120	
RA-p(convict. given offense)	.56		b.34*
B&E-p(prison given convict.)	.77	100	F F 24
RA-p(prison given convict.)	.90		5,53*
B&E-p(prison given offense)	.32	100	
RA-p(prison given offense)	.53	138	/.//*

* p <.001

Table	15
-------	----

Armed Robbery versus Breaking and Entering Probabilities - Prison-Experienced

	x	df	t
B&E-p(arrest)	.48	95	4.10*
RA-p(arrest)	.60		
B&E-p(convict. given arrest)	.79		
RA-p(convict. given arrest)	.88	95	3.01*
B&E-p(convict. given offense)	.41		(())
RA-p(convict. given offense)	.56	95	4.63*
B&E-p(prison given convict.)	.85		0.00t
RA-p(prison given convict.)	.91	95	2.38*
B&E-p(prison given offense)	.37		
RA-p(prison given offense)	.53	95	5.00*

* p < .001

Armed Robbery versus Breaking and Entering Probabilities - Non-Prison Experienced

x	df	t
.50	10	2.00t
.65	42	3.80*
.76		
.87	42	2.67*
.37		/ 504
.57	42	4.39*
.58		6 68*
.88	42	0.00*
.22		7 10*
.52	42	7.17"
	x .50 .65 .76 .87 .37 .57 .58 .88 .88 .22 .52	$ \begin{array}{ccccccccccccccccccccccccccccccccc$

***** p < .001

Comparisons were made between predicted lengths of sentences made by participants with prison experience and those made by participants without prison experience. Mean estimates of predicted sentences for a breaking and entering made by these two groups were significantly different, with the prison experienced predicting that they would receive much higher sentences. Similarly, the prison-experienced respondents anticipated higher sentences for armed robbery (X=223.1 months) than did participants who had never been in prison (X=114.7 months). This difference was also significant. Results are presented in Table 17.

Expected time in prison for self versus for others. Comparisons were made between the amount of time participants believed other people would serve if sentenced to prison for a breaking and entering or an armed robbery, and the amount of time they believed they would personally serve.

Because data were not gathered specifically on the perceived amount of time participants believed they would serve if sentenced to prison, this information was calculated from other variables. Data had been gathered asking participants to estimate what they believed their prison sentence, rather than time in prison, would be if they were convicted of a breaking and entering or armed robbery. These responses were multiplied by a factor of .74 to estimate the perceived amount of time to be served. The figure .74 was obtained from the data which compared lengths of prison sentences with the perceived amount of time to be served. These comparisons indicated that the amount of time to be served

Expected Prison Sentence Prison-Experienced versus Non-Experienced

Sentence Expected for Breaking and Entering***

	x	df	t
Prison experienced	81.9 months		
Non-prison		122	4.06**
experienced	36.0 months		
TOTAL	67.7 months		

Sentence Expected for Armed Robbery***				
	x	df	t	
Prison experienced	223.1 months	120	/ / 5+	
Non-prison experienced	114.7 months	132	4.43*	
TOTAL	189.5 months			

was approximately .74 times the length of a prison sentence, across all levels of imprisonment.

It was perceived by the participants as a group that other people would serve significantly less time in prison for a breaking and entering than would the offenders themselves. Additional comparisons were made with offenders grouped according to whether or not they had ever been in prison. Estimates of time to be served for a breaking and entering for self versus for others were statistically different for participants with prison experience, but not for offenders without prison experience. Prison-experienced participants estimated that they would serve an average of 18.7 more months for a breaking and entering than would other Participants without prison experience, on the other hand, people. estimated that they would serve 2.9 months less than would other people. In addition, participants with prison experience made significantly higher estimates of time to be served by self and by others for a breaking and entering than did participants without prison experience. This information is presented in Table 18.

Similar comparisons were made using armed robbery as the reference offense. As with breaking and entering, participants as a whole predicted that they would serve signifiantly more prison time than would other people. In addition, prison-experienced participants estimated that they would serve significantly more time in prison for armed robbery than others would serve. Participants without prison experience, however, estimated that they would serve approximately the same amount of time as would others. Participants with prison experience predicted they

-		10
Та	Die	5 I 8
		,

Time Expect to Serve versus Time Expect Others to Serve - Breaking and Entering

	Time Expect to Serve***	Time Expect Others to Serve df		t	
With prison experience	61.1 months	42.4 months	94	2.30*	
Without prison experience	26.5 months	29.4 months	42	.91	
TOTAL	50.3 months	38.4 months	137	2.09**	

* p < .01
** p < .05
*** Expected time served of life coded as 444 months (600 mnths x .74)</pre>

would serve an average of 53.7 more months than others, while participants without prison experience estimated that they would serve an average of .3 months less than would others. Estimates of time to be served for armed robbery made by prison-experienced participants were significantly higher than those made by participants without prison experience for time served by self and for time served by others. Further information is presented in Table 19.

For both prison-experienced and non-prison experienced participants, estimates of the amount of time other people would serve in prison for armed robbery were significantly greater than those made for breaking and entering. Estimates of the amount of time to be served for an armed robbery were two to three times as lengthy as estimates of the amount of time to be served for a breaking and entering.

Level of Deterrability

A level of deterrability scale score was calculated from responses to questions related to the level at which a respondent would be deterred from committing a crime. Scale scores were assigned using the following criteria (scores were assigned based on the <u>lowest</u> level at which respondent indicated he would be deterred).

Scale Score Level Deterred

- Would not commit even if offense was <u>not</u> against the law
- 2 Would not commit if offense was against the law, but there was no penalty for committing offense
- 3 Would not commit if expected <u>any</u> prison time

TIME Ex	Serve - Armed Robbery			
	Time Expect to Serve**	Time Expect Others to Serve	df	t
With prison experience	166.1 months	112.4 months	94	3.58*
Without prison experience	84.9 months	85.2 months	42	.03
TOTAL	140.8 months	104.0 months	137	3.31*

Time Expect to Serve versus Time Expect Others to

***** p < .001

** Expected time served of life coded as 444 months (600 mnths x .74)

- 4 Would not commit if expected 1 to 30 months in prison
- 5 Would not commit if expected 31 to 60 months in prison
- 6 Would not commit if expected some number of months in prison greater than 60 months

Separate scores were calculated for the level of deterrability for a breaking and entering and for an armed robbery.

Comparisons of mean scores were made using t-tests to determine whether the level at which participants reported they would be deterred from committing a breaking and entering was different from the level at which they would be deterred from committing an armed robbery. Participants reported that they would be deterred from committing an armed robbery at a significantly lower level than they would be deterred from committing a breaking and entering. In both cases, the <u>mean</u> level at which they would be deterred did <u>not</u> require that there be a threat of imprisonment.

For both individuals with prison experience and those without prison experience, there were significant differences between the level of deterrability scale scores for breaking and entering and those for armed robbery. Thus, these individuals reported that, they required more severe sanctions to be deterred from committing breaking and enterings than to be deterred from committing armed robberies. Further information is presented in Table 20.

Participants with prison experience had a higher mean level of deterrability score for armed robbery than did those without prison

Level of Deterrability Breaking and Entering versus Armed Robbery

Prison Experienced			
x	df	t	
1.9 1.6		2.39*	
	Non-Prison Experienced		
x	df	t	
2.1 1.2	59	4.21*	
	TOTAL		
X	dt	t	
2.0 1.5	135	4.37*	
	\bar{x} 1.9 1.6 \bar{x} 2.1 1.2 \bar{x} 2.0 1.5	Prison Experienced \bar{X} df1.9921.692Non-Prison Experienced \bar{X} df2.1591.259TOTAL \bar{X} df2.01351.5135	

***** _P **<** .001

experience. In other words, those without prison experience reported that they were deterred from committing an armed robbery by lesser sanctions than did those with prison experience. There was not a corresponding difference when the offense was breaking and entering.

Determination of deterrable population. A great majority of respondents reported that they would be deterred from committing breaking and enterings or armed robberies by sanctions other than the threat of imprisonment (see Table 21). Nearly 80.0 percent of each offender group, and 77.9 percent of the group as a whole indicated that they would not commit a breaking and entering if there was any threat of incarceration in prison, and 89.1 percent of the total participants made similar responses with armed robbery as the reference offense. Both prison-experienced and non-prison experienced groups indicated that high percentages of those groups were deterred by non-penal sanctions. These figures indicated that a relatively small portion of this offender population was being deterred from committing these offenses by the actual threat of imprisonment.

The percentage of participants who might potentially be deterred from committing a breaking and entering or an armed robbery was further described by comparing the amount of time each offender expected to serve in prison for an offense with the amount of time he indicated would be enough to deter him from committing that crime. It will be remembered that the amount of time in prison necessary to deter respondents was the amount of time necessary to deter them given their own perceived probability of eventually being sentenced to prison.

Deterred by Prison Sanctions versus Deterred by Non-Prison Sanctions

Prison-Experienced

	Deterred by Non-Prison Sanctions	Deterred Only by Prison Sanctions
Breaking and Entering	78,5%	21.5%
Armed Robbery	86.3%	13.7%

Non-Prison Experienced

	D e terred by Non-Prison Sanctions	Deterred Only by Prison Sanctions
Breaking and Entering	76.7%	23.3%
Armed Robbery	95.3%	4.7%

	TOTAL	
	Deterred by Non-Prison Sanctions	Deterred Only by Prison Sanctions
Breaking and Entering	77.9%	22.1%
Armed Robbery	89.1%	10.9%

Table 22 presents the results of these comparisons. Over 90 percent of offenders reported that they were either deterred by non-penal sanctions from committing a breaking and entering, or comparisons indicated that the amount of time they expected to serve in prison exceeded the amount of time necessary to deter them from committing the offense. The amount of time necessary to deter exceeded the expected time in prison for a breaking and entering for fewer than seven percent of the cases.

The figures were even more dramatic when the reference offense was armed robbery. In this case, over 98 percent of the respondents indicated that they were deterred from committing armed robberies because they were deterred by non-penal sanctions, or the time they expected to serve in prison for armed robbery was greater than the amount of time needed to deter them. Only a very low percentage of respondents, aproximately 1.4 percent, expected time in prison which was less than the amount of time necessaray to deter them from committing armed robbery.

1. <u>Deterrable versus non-deterrable population</u>. Further comparisons were made to determine whether there were differences in the perceived risk of imprisonment between respondents who were deterred by non-prison sanctions and those who were deterred only by the threat of prison time. For the purpose of these comparisons, respondents were considered to be deterred by non-penal sanctions if they had a score of one, two, or three on the Level of Deterrability scales. Respondents who had scores of four, five, or six were considered to be deterred only by

Comparison of Expected Prison Time with Amount of Prison Time Needed to Deter

	Breaking	Breaking and Entering	
	n	Percentage of Respondents	
Expected time in prison greater than amount needed to deter	126	93.3%	
Expected time in prison less then amount needed to deter	9	6.7%	
	Arm	ed Robbery	
	n	Percentage of Respondents	
Expected time in prison greater than amount needed to deter	135	98.6%	
Expected time in prison less than			

2

1.4%

amount needed to deter

the threat of imprisonment.

Results showed that respondents who were deterred by non-prison sanctions believed that they had an average probability of .35 of going to prison if they committed a breaking and entering. Respondents who reported that they would commit a breaking and entering unless threatened with some amount of imprisonment, however, perceived their probability of being incarcerated for a breaking and entering to be only .24. This difference was statistically significant.

Similar results were found when the reference offense was armed robbery. Non-prison sanction deterred participants reported a mean perceived probability of incarceration after committing an armed robbery of .55. Those who reported that they would commit armed robbery unless they expected some amount of incarceration, on the other hand, had a perceived probability of being sentenced to prison of only .34. This difference was also statistically significant. These results are presented in Table 23.

2. <u>Deterrability by offense type</u>. Further examination was made of the respondents who had committed an armed robbery or a breaking and entering as their last convicted offense to see if there were differences between them and the rest of the participants in their perceptions of risk for these crimes.

Results showed that participants who had committed a breaking and entering had approximately the same perceived probability of being sentenced to prison if they committed a breaking and entering as did other respondents. However, they reported that they would require more

91

Perceived Risk of Prison-Deterred versus Non-Prison Deterred

	Breaking a	and Entering	
	Perceived Probability of Incarceration	df	t
Non-prison sanction deterred	.35		
Prison deterred only	.24	74	2.17*
	Armed	Robbery	
	Perceived Probability of Incarceration	df	t
Non-prison sanction deterred	. 55		
Prison deterred only	. 34	136	2.16*

* p < .05

severe sanctions to be deterred from committing a breaking and entering than did other respondents. This difference was significant. These results are presented in Table 24.

The pattern of responses was different for participants who had committed an armed robbery. These individuals reported a significantly higher perceived proability of being sentenced to prison if they committed armed robbery than did other respondents. Although they indicated that they would need more severe sanctions to be deterred from committing an armed robbery than did others, this difference was not statistically significant. Results are presented in Table 25.

Summary and Discussion

Presented below is a discussion of results regarding the level of sanctioning necessary to deter the respondents from committing offenses. The results presented above which pertain to perceptions of probability of contact and expected sentences will be compared with official estimates of those variables in the section which follows this one. Therefore, they will not be discussed at this juncture.

Scales were developed to indicate a minimum level at which participants would be deterred from committing a breaking and entering or an armed robbery. Subsequently, comparisons were made between expected penalties and the level of penalty needed to deter the respondent from committing the reference offense. Finally, the population of participants most likely to be deterred by the threat of sanctions was compared with those unlikely to be responsive to the threat of incarceration.

Perceptions of Risk - Burglars

Probability of	prison sentence if c	ommit breaking	and entering	
	Probability	df	t	
B&E Offenders	.38	127	07	
Others	.31	137	• 97	
	Level of deterr	ability		
	Scale Score	df	t	
B&E Offenders	2.6	10/	0.014	
Others	1.8	134	2.31*	

***** p **<**.05

Perceptions of Risk - Armed Robbers

Probability	of prison sentence	e if commit arme	ed robbery
	Probability	df	t
Ar med Robbery Offenders	.40	137	2.09*
Others	.56		
	Level of deterra	ability	
	Scale Score	df	t
Armed Robbery Offenders	2.0	20	1 71
Others	1.4	29	1./1

***** p **< .0**5

It was apparent from these results that most of the participants believed that they were prevented from committing a breaking and entering or an armed robbery simply because those offenses were wrong, were against the law, or had prison as a possible penalty. In other words, whether these individuals believed that they would or wouldn't actually receive a prison sentence if they committed one of these offenses was secondary to the fact that they believed that they wouldn't offend even without the threat of prison time. Approximately 78 percent indicated that they would not commit a breaking and entering and 89 percent indicated that they would not commit an armed robbery, even if these offenses did not carry prison as a penalty. This left only a relatively small proportion who might be responsive to the deterrent effects of incarceration.

These estimates of the percentages of offenders deterred by non-prison sanctions seem surprising, particularly given that all of these respondents had been convicted of some sort of crime. However, there are several explanations for these figures. First, the data gathered in this study referred to only two specific serious crime, and responses cannot be used to predict perceived deterrability from other offenses. In fact, nearly 70 percent of the respondents had been last convicted of offenses <u>other</u> than breaking and entering or armed robbery. In addition, perceptions were measured at a particular point in time and under certain conditions, that is, during an interview. Beliefs about the likelihood of committing an offense would likely have been different

if respondents were presented with an actual crime opportunity, encountered a need for resources, were pressured by peers to offend, were in need of drugs, etc. Finally, the possibility that participants were making socially desirable responses should not be overlooked. This would occur if participants made certain responses because they felt those were the responses that they "should" be making. During the data collection, efforts were made to minimize this problem by keeping responses anonymous and confidential. In addition, efforts were made during the development of the instruments to avoid demand characteristics. The differences in responses given for different offense types and the ranges of responses given indicate that participants were generally making honest answers.

The number of potentially deterrable offenders was further reduced by making comparisons between expected sentences and sentences needed to deter. In this study, the percentages of the participants for whom the length of the prison sentence they expected to receive was less than the amount needed to deter them given their perceived personal risk were 6.7 percent for breaking and entering and a mere 1.4 percent for armed robbery. This indicated that only incarceration would prevent between 6.7 and 8.1 percent of these persons from committing new crimes.

At this point, the population which was apparently deterred under existing conditions has been reduced in two ways. First, offenders who did not require a penal sanction to be prevented from committing the offenses were eliminated. Second, offenders who would not be deterred by anticipated sanctions were eliminated. This leaves approximately 15.4 percent of the offenders who were deterred at that time by their

perceptions of risk of incarceration and/or length of expected prison sentence from committing a breaking and entering. Approximately 9.5 percent of the participants were similarly deterred from committing an armed robbery.

The second group described above (i.e., those not deterred under existing conditions), might be prevented from committing these offenses if their perceptions were somehow altered such that they would then perceive a higher likelihood of arrest, conviction and/or incarceration and/or would expect a lengthier prison sentence. However, it is not possible to conjecture, at this point, how those perceptions might be changed.

Overall, these figures indicate that a great majority of offenders, as represented by the respondents in this study, do not commit breaking and enterings or armed robberies given the current activity of the criminal justice system. Results also indicated that respondents who were not deterred by non-penal sanctions perceived that they had a lower probability of incarceration given the commission of an offense. Therefore, increasing penalties or risk might have some affect on the criminal activity of this sub-group, although it is unlikely that this would dramatically affect the criminality of the offender group as a whole.

The particular group of offenders in this sample was very likely more prone to involvement in criminal activity than the general population. Estimates of the proportion of the general population prevented from committing breaking and enterings or armed robberies under

the current system, for whatever reasons, would undoubtedly be much higher than for this selectively criminal group.

There were some differences in perceptions between individuals who had been convicted of the reference offenses and persons who had been convicted of other offenses. The breaking and entering offenders perceived a risk of incarceration which was similar to the risk perceived by others. Curiously, however, the armed robbers perceived а significantly lower risk of incarceration for an armed robbery than did others. Interestingly, the risk of incarceration perceived by burglars for a breaking and entering and the risk of incarceration perceived by armed robbers for an armed robbery were virtually identical. Perhaps the experience of conviction in some way equalized the perceptions of overall risk for the reference offenses. It would be necessary to obtain similar estimates using a range of offenses to further explain this similarity.

Participants who had been convicted of breaking and entering indicated that they required significantly more stringent sanctions to be deterred from committing another breaking and entering than did respondents who had committed other offenses. There was a similar trend for armed robbers with respect to armed robbery, but the differences in levels of deterrability between armed robbers and others were not statistically significant. It is possible that these particular offenders were initially less likely to be deterred from committing these offenses and consequently did commit breaking and enterings or armed robbery. It is also possible, however, that their experiences in committing these offenses altered their perceptions such that they were
subsequently willing to undergo higher risks because of the lucrativeness of those offenses, or other reasons.

Accuracy of Perceptions of Risk

In order to assess the accuracy of respondents' perceptions of risk in the criminal justice system, results from the previous section were compared with official estimates of actual risk. Comparisons of perceived probabilities of arrest, conviction, and imprisonment were made with official estimates of these variables. Furthermore, estimates were obtained of average prison sentences given for breaking and enterings and for armed robberies in Michigan, and these estimates were compared with participants' expected sentences and the sentences they believed other people received for these offenses.

<u>Perceived</u> <u>Probabilities</u> of <u>Criminal</u> <u>Justice</u> <u>System</u> <u>Contact</u>

Participants were asked to estimate their perceived probability of criminal justice contact given the commission of a breaking and entering or an armed robbery. These estimated rates were then compared to calculated rates based on Michigan crime statistics (Michigan Department of Corrections, 1981; Michigan Department of State Police, 1981) and national crime statistics (Federal Bureau of Investigation, 1978). These estimates are presented in Table 26. The actual probability of arrest for a breaking and entering or for an armed robbery was based on offense clearance rates presented in the 1980 Uniform Crime Reports for the state Michigan (Michigan Department of State Police, 1981). of The probabilities of conviction were based on data presented in the Uniform

Table 26

0111				invo i vemente	
	p(arrest)*	p(convict. given arrest)**	p(convict. given offense)	p(prison given convict)***	p(prison given offense)
Breaking and Entering	.11	.72	.08	.37	.03
Armed Robbery	.17	.63	.11	.96	.10

Official Risk of Criminal Justice System Involvement

* based on 1980 Uniform Crime Reports for the State of Michigan

*** based on the Annual Statistical Report for the Michigan Department of Corrections, 1980 Crime Reports for 1977 (Federal Bureau of Investigation, 1978) on the dispositions of persons formally charged by the police. In calculating a probability of conviction, cases were included if the offender was convicted of the original charge or of a lesser offense. Because similar data were not available for Michigan specifically, these rates, which were based on a national sample, were used to estimate the conviction rates for Michigan. Finally, estimates of the chances of being sentenced to prison after being convicted were based on data presented on court dispositions by offense type presented in the Michigan Department of Corrections, 1981). Estimates of the probability of conviction given the commission of an offense and of the probability of imprisonment given the commission of an offense were calculated in the same manner as they were for the data collected in this study.

Overall, participants perceived that they had approximately a 50 percent chance of being arrested for a breaking and entering and a 60 percent chance of being arrested for an armed robbery. The official clearance rates, however, indicated probabilities much lower than these estimates. In 1980, arrests were made for only 11 percent of the breaking and enterings, and 17 percent of the armed robberies committed in Michigan during that year.

Perceptions of the probability of conviction after an arrest were quite high, with an estimated 78 percent probability of conviction for a breaking and entering and an estimated 87 percent chance of conviction for an armed robbery. These compared to official estimates of a 72 percent chance of being convicted of a breaking and entering and a 63 percent chance of being convicted of an armed robbery. Participants' estimates of their chances of conviction given an arrest for a breaking and entering were fairly accurate. However, as a group they overestimated their risk of conviction for an armed robbery.

Estimates of perceived probability of imprisonment given conviction were compared with actual data published by the Michigan Department of Corrections (1981). Table 27 presents the court dispositions for all convicted offenders during 1980. This information is further broken down to provide dispositional data on groups of offenders according to their criminal history. With participants in this study evaluating their risk at the time of the interview, parolees, prison inmates and jail inmates fit best into Group D and probationers into Group C.

The dispositions for all breaking and entering cases (unoccupied and occupied dwelling combined) and armed robbery cases are presented in Table 28. Although these data are not broken down by offender history, the proportions of each type of disposition for breaking and entering are very similar to the dispositions of all cases shown in Table 27. If it is assumed that the distribution of dispositions by offender history is similar for breaking and entering as for the total dispositions, comparisions can be made between the results of this study and actual risks. According to Michigan Department of Corrections statistics, approximately 37 percent of all offenders convicted of a breaking and entering were sentenced to prison. Respondents in this study estimated the chances of receiving a prison term after conviction of a breaking and

Table 27

Group	Prison	Probation	Jail/Fine	Percent of Total		
A	18.7	70.7	10.7	53.3		
В	17.1	67.3	15.6	8.9		
С	34.5	46.5	19.0	22.5		
D	85.4	8,4	6.1	15.3		
TOTAL	32.3	55.4	12.3	100.0		

Court Dispostions for 1980

A - No prior prison term, juvenile probation only or one jail term
B - Juvenile record, multiple jail terms or one term of adult probation
C - Multiple probation terms, probation violators or prior prison terms
D - Institutional residents, escapees, parole violators with new sentence

Table 28

Court Dispostions for 1980 Breaking and Entering and Armed Robbery

	Total Cases	Prison	Probation	Jail/Fine	
Breaking and Entering	2472	36.9%	53.1%	10.0%	
Armed Robbery	87.1	95.9%	2.4%	1.7%	

From data presented in the Annual Statistical Report for the Michigan Department of Corrections, 1980.

entering to be approximately 77 percent. If the leap in logic proposed above is reasonably sound, the responses made by different offender groups can be examined more closely. Parolees, prison inmates and jail inmates all made similar estimates of perceived risk of imprisonment given conviction of a breaking and entering, with estimates ranging from 82 An examination of Table 27 indicates that to 87 percent. approximately 85.4 percent of Group D were sentenced to prison after conviction. Thus, the estimates of risk of imprisonment after conviction made by these groups were remarkably accurate. Probationers estimated that they had a 58 percent probability of being sentenced to prison after conviction of a breaking and entering. This compared to a figure of approximately 34.5 percent as shown in Table 27. Probationers in this study, then, may have overestimated their overall probability of imprisonment after conviction of a breaking and entering.

All offender groups in this study made similar estimates of risk of imprisonment after being convicted of an armed robbery, with an average estimate of 90 percent. According to Michigan Department of Corrections statistics, approximately 96 percent of convicted armed robbers were sentenced to prison. Although it is not possible to estimate the actual risks for each offender group, the respondents in this study were quite accurate in assessing their risk as a whole group.

Finally, comparisons were made between participants' and official estimates of overall risk; i.e., the probability of incarceration given the commission of an offense. Official crime statistics indicated extremely low probabilities of incarceration given the commission of an offense. According to these figures, only three percent of the individuals who commited a breaking and entering ended up in prison, while only 10 percent of armed robbers ended up in prison. These figures would be reduced further if one considered the under reporting of victimization, particularly for breaking and enterings. These overall probabilities would also increase for each individual as he committed additional offenses.

Although the respondents in this study correctly estimated that the risk of subsequent incarceration was greater after the commission of an armed robbery than after the commission of a breaking and entering, they greatly overestimated the actual levels of risk. In general, estimates of personal risk were not unreasonable in comparison to overall rates for the chances of conviction given arrest and for the chances of imprisonment given conviction. However, because the actual probabilities arrest were apparently much lower than participant estimates, of participants' estimates of overall risk were greatly inflated over actual risks. Even if it is assumed that this group of respondents had a real risk of arrest which was significantly greater than the risk of offenders as a whole, their perceived probabilities of incarceration were still greater than actual risk.

In general, the estimates of risk of incarceration given the commission of an offense made by each offender group were fairly similar, both for breaking and entering and for armed robbery. Although there were differences in the mean estimates, these differences were generally not statistically significant. However, there were real differences in the perceived probabilities of imprisonment given conviction and of imprisonment given arrest for breaking and entering as made by probationers and those estimates by other participants. made Probationers perceived that they had the lowest probabilities of incarceration. This was very likely an accurate perception, given that their less serious criminal records might net them less severe penalties should they be convicted of another crime.

There were no similar differences for armed robbery. This may have reflected the generally serious nature of armed robbery and an apparent perception that the system treats those who commit more serious offenses more equally.

Expected Lengths of Sentences

Participants were asked to estimate how much time they believed other people served in prison for an armed robbery or a breaking and entering, and what they believed their own sentence would be if they were convicted of one of these offenses. This information was compared with Michigan Department of Corrections statistics on the lengths of sentences given for armed robberies and breaking and enterings (Michigan Department of Corrections, 1978).

The amount of time participants believed others would serve was converted to a sentence length by adjusting these figures to account for the amount of the sentence which respondents believed would be reduced by good time. This indicated that participants believed that other people received an average minimum sentence of approximately 52 months for a breaking and entering and approximately 141 months for an armed robbery.

According to Michigan Department of Corrections statistics, the average minimum sentence given for a breaking and entering conviction during 1977 was 40 months. This was a somewhat shorter length of time than respondents' believed others would serve for breaking and entering. Similarly, the average minimum prison sentence received for an armed robbery conviction was approximately 88 months. As when using breaking and entering as the reference offense, respondents overestimated the average length of prison sentence received for an armed robbery. Estimates of the length of prison sentences others would receive for an armed robbery were approximately 60 percent greater than the sentence lengths which actual statistics indicated. Overestimates were not quite as great assuming imprisonment for a breaking and entering, with respondents estimating sentence lengths for others that were approximately 30 percent greater than the actual average sentence given.

Respondents believed that they would receive quite severe sentences themselves, particularly if they were to be convicted of an armed robbery. On the average, respondents believed that they would receive a minimum sentence of nearly 68 months for a breaking and entering. This was 69 percent greater than the average prison sentence length for breaking and entering in Michigan during 1977.

As statistics were not available detailing the average sentences given to offenders with a variety of criminal histories, it was not possible to assess the accuracy of predicted sentences here. However, the average sentence length of 37 months predicted by probationers was very close to the actual average sentence length. The sentences predicted by other offender groups, particularly by parolees and prison inmates, were much longer than those predicted by probationers. It is certainly likely that these perceptions of lengthier sentences reflected an actual likelihood of receiving a longer sentence because of their prison history. As is illustrated in Table 28, offenders who have a serious criminal history are more likely to be sentenced more harshly than offenders who have had little contact with the criminal justice system.

Similar results were found for armed robbery. Respondents estimated that they would receive sentences over twice as long as the average sentence received for an armed robbery.

Overall, the participants believed that they would serve more time for an armed robbery or breaking and entering than would others. Closer inspection revealed that while participants who had prison experience believed that they would receive longer sentences than others, respondents without prison experience believed that they would receive sentences that would be very similar to the sentences received by others. According to the statistics presented in Table 27, having a history of prison was associated with a likelihood of receiving a more punitive disposition. In addition, unless an offender was a probation violater, having a single prior term of probation did not appear to increase the likelihood of receiving a prison sentence. In conclusion, participants' perceptions of their expected prison sentence in relation to the sentences received by others were likely accurate. That is, respondents without prison experience would likely be sentenced similarly to others in general, while participants with prison experience would likely be sentenced more severely.

.

CHAPTER 4

DISCUSSION

The results of this study describe the perspective of the criminal offender in the evaluation of legal sanctions. Scores of perceived severity of sanctions were developed for probation, jail and prison sentences. In addition, estimates of perceived risk of criminal justice system contact given the commission of an offense were obtained, and those figures were compared with official estimates of risk. In this section, there will be a discussion of several of these aspects of the study. First, possible uses of perceived severity scales will be discussed. This will be followed by a discussion of the accuracy of perceptions and implications of the results of the research for the deterrence doctrine. Some of the implications of the results for criminal justice system policy will be addressed and recommendations for future research will be made.

Perceived Severity of Sanctions

The development of scales of relative perceived severity, as was done in this using offenders, presents some interesting study possibilities for policy development and the evaluation of existing policies. As has already been demonstrated, different levels of the same penalty can be compared. For example, the perceived severity of a two year sentence in prison can be compared with the perceived severity of a sentence of four years in prison. In addition, the perceived severities of different penalties can be compared. For example, it can be determined what sentence length of probation or jail might be commensurate with a prison sentence of a certain length. Or, the relative perceived severity levels of similar sentence lengths can be compared across sanctions.

These types of comparisons could be used in a variety of policy relevant ways. For example, severity scales could be used to develop equitable sentencing policies, particularly if paired with ratings of the perceived seriousness of offenses. For example, an offense which is perceived of as twice as serious as another could have a maximum legal penalty set at a sentence level which has twice the perceived severity of the penalty for the less serious offense. Similarly, existing sentencing policies can be evaluated with respect to the perceived severities of existing penalties. In this manner, it might be determined whether current penalties reflect the covels of severity intended by lawmakers.

Severity scales can also be used to establish whether alternate penalties for an offense have equal severities. For example, if a judge has the option of giving a jail, probation, or prison sentence, he or she can choose any one of the three penalties while maintaining a desired level of sanction severity.

Another use for these methods of comparison could be to compare different sentencing behavior across judges, courts, jurisdictions, etc. For example, one court may sentence more offenders to jail than to prison for certain offenses than does another court. An average perceived severity of sentences could be calculated for each court and then compared to determine whether one court actually treated offenders more "leniently" than the other. Similar comparisons could be made between different judges, states, etc.

It would certainly be open for discussion whether the perceived severity of sentences according to offenders (the recipients of those sanctions) is most relevant to policy making, or whether ratings should be made by some other group. In one sense, sentences are already made according to their perceived severity by one group; judges. This sentencing is done, of course, within the usually wide confines established by the legislature. In their extensive study on the perceived severity of legal penalties, Erickson and Gibbs (1979) compared the perceived severity of penalty ratings made by citizens and by police. They found that for all penalties, there was a tendency for police to perceive of sentences as being more severe than did citizens. Just as Erickson and Gibbs found differences between the perceptions of police and citizens, it also appears that the scales developed in the present research are different from the scales which they developed.

Unlike the present study, participants in the Erickson and Gibbs study were asked to rate the severity of penalties for a generalized other, rather than for themselves. It is possible that citizens and police would rate the severity of punishments differently if they rated their personal responses to receiving those penalties. Although some of the differences between these two studies are likely due to differences in methodology and location, they also reflect real differences in the perceptions of the populations measured. Consequently, if scales of perceived severity were to be used in policy development or analysis, it would certainly need to be determined which reference group is most important with respect to perceptions of sanction severity.

Perceptions of Risk

Perceptions of risk of criminal justice contact were assessed in this study and comparisons made between perceived risks and official estimates of risk. It was not anticipated that perceptions would be precisely accurate. However, perceptions of risk were not even generally accurate. Respondents greatly over-estimated the probabilities of arrest and of incarceration given an offense.

What implications do these inaccurate perceptions have for criminal justice policy? With respect to perceptions of risk, respondents generally overestimated their chances of imprisonment as well as the lengths of the sentences they would likely receive. These inaccurate perceptions may have actually acted to increase the deterrent strength of existing sentencing policies. Changes to make actual policies more severe may cause little change in their deterrent strength, as perceptions already acted to make existing policies more severe than they were actually. Particularly in the case of the perceived probabilities of arrest and of imprisonment given an arrest, it would certainly to the advantage of the system that perceptions remain inaccurate. Official estimates of risk, which indicated very low probabilities of detection and incarceration, could make armed robberies and breaking and enterings appear to be risks worth taking to potential offenders.

Some Implications for the Deterrence Doctrine

Although the relationships between perceptions of risk and behavior were not examined directly, some speculation can be made about whether the results are supportive of the deterrence doctrine. In particular, this can be done by examining the differences in the perceptions of prison experienced and non-experienced to look at the possible deterrent effect which the experience of prison might have (i.e. special deterrence). According to the deterrence doctrine, special deterrence occurs when individuals refrain from committing offenses because of the threat of re-experiencing prison. lt follows. then. that the prison-experienced would be more deterred from committing offenses which carry possible prison terms than would individuals responding to general deterrence.

Caution should be taken in interpreting the following comparisons. Data on perceived levels of deterrability were used only as a proxy for future behavior. Without long term follow up of behavior it is not possible to know the degree to which these perceptions actually predict behavior.

The data in this study indicated that both the prison-experienced and the non-prison experienced were deterred primarily by non-prison sanctions. Virtually identical proportions of these groups claimed that they were deterred from committing burglaries by non-prison sanctions. This was true even though the prison-experienced perceived that they had significantly higher chances of ending up in prison if they committed breaking and enterings (higher perceived certainty) and expected to longer prison sentences (higher perceived severity). receive The deterrence doctrine might predict a different result. That is. the deterrence doctrine would predict that the group that perceived a higher certainty of a more severe punishment would be more deterred from offending.

The proportions of prison-experienced and non-prison experienced respondents deterred from committing armed robberies were also similar, with a slightly higher proportion of non-prison experienced offenders being deterred by non-prison sanctions. There were no significant differences in the perceived probabilities of incarceration between these groups. However, the prison-experienced expected significantly longer prison sentences. The deterrence doctrine would then predict that the prison-experienced would be more highly deterred from offending than would the non-prison experienced. These data indicated a trend opposite to that predicted by deterrence doctrine and were, at best, unsupportive of deterrence.

Comparisons between the perceptions of respondents who had committed the reference offenses and others only served to complicate the issue further. These comparisons used a very strict definition of special deterrence. That is, they focused on the groups who were previously punished (and in most cases, incarcerated) for the same offenses.

Breaking and entering offenders indicated that they needed greater sanctions to be deterred from committing breaking and enterings than did others, even though their perceived risks of incarceration were the same. This result would be unanticipated from the deterrence doctrine. Comparisons between armed robbers and others yielded different results. Although the armed robbers also tended to be less deterred from committing that offense than were others, there were no significant differences in deterrability. In addition, armed robbers perceived that they had lower probabilities of being imprisoned than did others which would, according to deterrence doctrine, explain a lower likelihood of being deterred. These results, if not strongly supportive of the deterrence doctrine, do not refute it.

Overall, the data indicated that sentencing individuals to prison in order to deter them from committing future offenses is probably not an effective strategy. The prison-experienced respondents in this study appeared to perceive themselves as being no less likely to commit burglaries or armed robberies than did the non-prison experienced, even when they perceived their risk of severe punishment as being greater. In addition, individuals who had previously been punished for committing offenses did not appear to be less likely to commit those crimes in the future than were others.

This discussion should be considered speculative. Without longitudinal behavioral studies combined with continual assessments of perceptions, it is not possible to determine the relationships between deterrence variables and criminal action. The results of this study, however, clearly indicate that the relationships between deterrence variables and behavior are very complicated and that the deterrence doctrine, per se, may not adequately explain those relationships.

Conclusions

The results of this study have provided a great deal of information about the perceptions of an offender population with respect to variables generally thought to be relevant to criminal deterrence. It has not been the intention of the present research to make predictions about criminal behavior or measure the strength of a deterrent effect. Rather, this research has sought only to examine the relevant perceptual variables, and from that examination, set some parameters for the potential impact of deterrent policies.

The data gathered reflect the perceptions of the participants about the current functioning of the criminal justice system and the responses of the system to them. Although it is reasonable to say that the information presented here reflects the true perceptions of the respondent population, it is not reasonable to use these self-reported perceptions to predict actual behavior. It would be necessary to conduct longitudinal research gathering data on perceptions and criminal behavior in order to determine the relationships between these attitudes and actions.

Preliminary research of this type has been conducted by Paternoster, et al, 1983; Saltzman, et al, 1982; and Minor and Harry, 1982. However, these studies have used relatively crime-free college and/or high school student populations as participants. In addition, they have focused on relatively trivial offenses more indigenous to these types of populations. Longitudinal study of a population more similar to the group used in this study could provide important information more relevant to policy formation and evaluation.

As Paternoster, et al (1983) have suggested from their research, perceptions of personal risk may change significantly over time. Some of these changes may be induced by an experiential effect. In other words, just as perceptions may affect behavior, behavioral experiences may cause changes in attitudes or perceptions. This study dealt specifically with a criminally identified population, and comparisons of different types of offender groups clearly indicated some attitudinal differences. Although the relationships between the experience of prison and perceptions are likely complicated, there were clearly some differences in expectations prison-experienced non-prison of risk between and experienced respondents. Some of these differences were possibly due to real differences in the types of people who end up in those offender groups, irrespective of criminal history. For example, some probationers (very

few of whom had been imprisoned) were likely first-time offenders with minor felonies who will never recidivate. Similarly, some prison inmates could have committed violent assaultive crimes as a first offense. Other differences in perceptions were undoubtedly due to differences in experiences. For example, an offender with a long criminal history would hold different perceptions of risk at the beginning of his criminal career, while he served a first probation term, while he was incarcerated in prison, and finally, as a parolee. Differences in the perceptions of parolees and prison inmates, theoretically equivalent populations, which were measured in this study are an indication of this experiential effect. Likewise, the perceptions of the probationers, the most criminally unsophisticated group, were very often different from the perceptions of the other offender groups.

In addition to presenting new information about offender perceptions, the present study suggests several avenues for further research. This study could be replicated using different populations and the outcomes then compared with the current results. For example, a similar survey could be performed using the general population to examine differences in perceptions between a criminally oriented group and a more "socially normal" population. The perceived severity ratings in particular could be repeated using a population of judicial decision makers to examine the congruence between the perceptions of the "punishers" and the "punishees." This could include judges and probation officers, who are both instrumental in determining sentences. The present research could be expanded so that the perceptual variables included here are examined more indepth. For example, perceptions of risk could be assessed using a wider range of offenses, or simply a general offense. Perceptions of sentence severity could be examined using a wider range of sanctions (for example including fines) or more levels of these sanctions to determine the stability of the equations derived from these data.

Whatever the relationships are between the variables which are relevant to deterrence, and whatever the influence of those variables upon behavior, it seems clear that these relationships are quite complicated. The examination of perceptual variables in deterrence is a relatively new area. Virtually all studies completed to date have methodological errors or other flaws which make them difficult to interpret in terms of their relevance to behavior and/or policy. The present research has provided a strong foundation upon which to base future study. The strongest recommendation for the future is to do similar research in conjunction with behavioral studies to determine the relationships, if any, between these perceptual variables and the strength of deterrent effects.

APPENDICES

APPENDIX A

PARTICIPATION AGREEMENT

APPENDIX A

Sentencing Policy Research Project Participation Agreement

The Sentencing Policy Research Project at Michigan State University is evaluating the effects of a recent change in criminal justice policy. As part of this evaluation, it is important to look at the reactions and opinions of those people who are directly affected by the change in policy.

By participating in this research, I understand that:

1. I am willingly completing these questionnaries with the understanding that all of the information I give will be kept confidential.

2. My name will not be associated with the information I will give and will not be included in any of the evaluation's findings.

3. Any information included in the evaluation report will be information about the group as a whole, not that of any individual.

4. In no way can any information I give be held against me.

(Signature)

(Date)

APPENDIX B

INTERVIEW OUTLINE

APPENDIX B

Interview Outline

INTRODUCTION

 Introduce yourself and find out respondent's name. Explain that we are studying feelings that people have about legal penalties.
 Read and explain the participation agreement. Have respondent sign.

3. Explain that we are <u>not</u> part of the Department of Corrections. BACKGROUND INFORMATION

First of all, I want to ask you some questions about yourself.

How old are you?

Are you married? (If no) What is your marital status?

What are you on (probation, parole, incarcerated, in jail) for now? (Determine what their legal status is. If they have been convicted of several offenses or have pending charges, record all offenses. If multiple offenses are involved, refer to most serious <u>convicted</u> offense in subsequent questions. Always indicate which offense you are referring to on your answer sheet!)

When was that offense committed?

(If not currently in prison or on parole) <u>Have you been in prison</u>? (If yes, or currently in prison or on parole) <u>How much time have you</u> been in prison all together?

Have you been sentenced to jail before?

(If yes) How much time have you been in jail all together?

SENTENCE SEVERITY

I want to find out how you feel about different sentences that are given to people who are convicted of crimes. (Hand respondent Response Sheet #1).

I want you to write your answers on this sheet of paper. As I ask you each question, I will tell you where to write your answer on the sheet. The answers will be in the form of a number.

First, I want you think about how you would feel if you were <u>sentenced</u> to one year in jail. I want you to answer some questions about those feelings.

As you can see, there are some lines here with numbers written above them. (Point to lines). For the first question, one end of the line says that being sentenced to one year in jail would "not cause a problem in <u>your life</u>." (Point to statement) The other end says that getting a sentence of one year in jail would "cause great <u>hardship</u> in your life." (Point to statement)

Think about what kind of problems there would be in your life if <u>you</u> were <u>sentenced</u> to one year in jail. If it would cause great hardship in your life, I want you to circle a number at this end of the line. (Point to upper end of line) If you don't think it would cause a problem in your life, I want you to circle a number at this end of the line. (Point to lower end of line)

I only want to know about how you would feel if you got a <u>sentence</u> of one year in jail. There are no right answers to these questions. I just want to know what you <u>think</u>.

Do you have any questions? (Ask question #1) Being sentenced to one year in jail would:

(As you read the question, point to the polar statements)

I want you to do the same thing with the next couple of questions. (Read questions 2 and 3. Point to the polar statements as you read them)

Being sentenced to jail for one year would:

3.	not bother me at all	0	1	2	3	4	5	6	7	8	9	10	bother me a great, great deal
2.	be easy for me to handle	0	1	2	3	4	5	6	7	8	9	10	be impossible for me to handle

Let's give a score of 100 to these feelings that you have about being sentenced to one year in jail. (Point to their answers to questions 1-3). I'm going to ask you to think about how it would be for you if you were given some other sentences. Then I want you to give a number score to how it would be for you if you were given those sentences.

So, for example, if you think that your getting a sentence of 3 years on probation would be <u>half</u> as bad for you as getting a sentence of one year in jail, then you would give it a score of 50. If you thought it would be twice as <u>bad</u> for you, then you would give it a score of 200.

You should give a number score <u>greater than 100</u> to any sentence that would be <u>worse</u> for you than a one year jail sentence. You should give a number score less than 100 to any sentence that would not be as bad for you as a one year jail sentence.

Once again, remember that I only want to know about how you think these sentences would be for you if you got them. (It may be useful to make an analogy to some physical sensation. For example, if cutting your finger on a piece of paper = 100, then getting a scratch = ? and getting your finger caught in a door = ?) Do you have questions?

(Read questions and indicate number on the answer sheet for response. <u>Repeat introductory statement for each sentence</u>. Go over their answers to first two questions and explain what they mean - i.e., this score of 200 means that you think getting this sentence would be twice as bad as getting a sentence of one year in jail. Go over instructions until you are <u>sure</u> they understand how to do the scoring.)

Now I want to find out how long you think you would actually serve if you were given different sentences. In other words, I want to know how long you think you would actually be on probation, for example, if you were given a sentence of 3 years on probation. You can tell me your answers and I will write them down.

(If respondents asks whether or not he would be earning good time, say that it depends on whether or not he thinks that <u>he</u> will be earning good time.

DETERRENCE QUESTIONS

Now I'm going to ask you some different types of questions. I'm going to ask you to pretend that you have just committed a crime. Then I want you to tell me what you think the chances are that certain things will happen to you after you commit the crime. I'm going to give you a new answer sheet for your responses. (Give respondent Answer Sheet #2)

As you can see (point to response sheet), there are some lines here with numbers along them. If you think one of the events I ask you about will definitely happen, then I want you to put a mark over the

10 (point to 10), where it says "definitely." If you think there is <u>no chance</u> that this event will happen, then I want you to put a mark over the 0, where it says "no chance." (Point to 0)

The other numbers will be used if you think that your chances of having one of these events happen are somewhere between no chance and definitely. For example, if you think there is a 50/50 chance that something will happen, you will put a mark over the 5. You can use any of the numbers along the line.

Do you have any question?

First, I want you to pretend that you have just committed a breaking and entering of a store. You have committed the offense by yourself. (If participant asks other questions about details of offense, say that you don't know, that this would be whatever type of B&E of a store that he would do.)

1. If you committed a Breaking and Entering of a store, what do you think the chances are that you would be arrested? (Read options and indicate number on answer sheet for this and all following questions)

2. If you are arrested, what do you think the chances are that you will be convicted?

3. If you are convicted, what do you think the chances are that you will be sentenced to prison?

4. If you are sentenced to prison, what do you think <u>your</u> sentence will be? (Have respondents write actual sentences they think they will receive. If they indicate a range of responses, i.e., 3-5, ask if they mean they would get a sentence somewhere between those numbers or if those numbers indicate the minimum and maximum of their sentence. We are interested in what sentence they think they will get as indicated by the minimum of that sentence.)

5. How much time do you think people usually <u>serve in prison</u> if they are sentenced to prison for a breaking and entering of a store? (Observe their answer to this question. If you cannot see it on their answer sheet, ask them to tell you the answer. Multiply the answer by 1 $\frac{1}{2}$ and record figure you obtain on information sheet.)

6. If breaking and entering of stores was not against the law, would you do them? (If no, go to #12. Make sure they write answers in appropriate place)

7. If breaking and enterings of stores <u>were</u> against the law, but there was no penalty, such as fines or prison for doing them, would you do them? (If no, go to # 12. Make sure respondent is oriented on answer sheet)

8. (Multiply answers to questions 1-3 together and divide by 100 to get a figure of the perceived probability of incarceration if a breaking and entering is committed. Use this figure (X) in the following questions.)

If you had X-chance of being convicted and <u>serving</u> (their answer to #5) in prison, would you commit breaking and enterings?

9. If you had a X-chance of being convicted and serving 2 $\frac{1}{2}$ years

in prison, would you commit breaking and enterings? (If answers to both 8 and 9 are no, then go to #11.)

10. If you had a X-chance of being convicted and serving (1 $\frac{1}{2}$ times their answer to #5), would you commit breaking and enterings of stores?

11. If there is a X-chance that you will be convicted and sentenced to prison, what is the minimum prison sentence it would take to keep you from committing breaking and enterings of stores?

Now I want to ask you these questions again, but for a different offense. Pretend that you have just committed an armed robbery. You have committed the offense by yourself. (If participant asks other questions about details of offense, say that you don't know, that this would be whatever type of armed robbery he would commit.).

Questions 12 - 22: Same as 1 - 12 except #20 (#9 above) reads 5 years instead of $2\frac{1}{2}$ years. LIST OF REFERENCES

LIST OF REFERENCES

- Antunes, G. & Hunt, L. (1973). The impact of certainty and severity of punishment on levels of crime in American states: An extended analysis. The Journal of Criminal Law and Criminology, 64, 486-493.
- Bailey, W. C., & Lott, R. P. (1976). Crime, punishment and personality: An examination of the deterrence question. <u>The Journal of Criminal</u> Law and Criminology, 67, 99-106.
- Bentham, J. (1962) The works of Jeremy Bentham. (J. Bowling, Ed.), New York: Russell and Russell.
- Beyleveld, D. (1979). Identifying, explaining and predicting deterrence. The British Journal of Criminology, 19, 205-224.
- Beyleveld, D. (1980). <u>A bibliography on general deterrence research</u>. Westmead, England: Saxon House.
- Blumstein, A., Cohen, J., & Nagin, D. (eds.) (1978). <u>Deterrence and</u> <u>incapacitation: Estimating the effects of criminal sanctions on crime</u> rates. Washington, D.C.: National Academy of Sciences.
- Brier, S. & Fienberg, S. E. (1980). Recent econometric modeling of crime and punishment: Support for the deterrence hypothesis? Evaluation Review, 4, 147-191.
- Buchner, D. (1979). Scale of sentence severity. <u>The Journal of Criminal</u> Law and Criminology, 70, 182-187.
- Burkett, S. R. & Jensen, E. L. (1975). Conventional ties, peer influence, and the fear of apprehension: A study of adolescent marijuana use. The Sociological Quarterly, 16, 522-533.
- California Assembly Committee on Criminal Procedure (1968). Deterrent effects of criminal sanctions. Sacramento: Assembly of the State of California.
- Carroll, J. S. (1978). A psychological approach to deterrence: The evaluation of crime opportunities. <u>Journal of Personality and Social</u> <u>Psychology</u>, <u>36</u>, 1512-1520.
- Cook, P. J. (1977). Punishment and crime: A critique of current finding concerning the preventive effects of punishment. Law and Contemporary Problems, 41, 163-204.
- Erickson, M. L., & Gibbs, J. P. (1975). Specific versus general properties of legal punishments and deterrence. Social Science Quarterly, 56, 390-397.
- Erickson, M. L. & Gibbs, J. P. Further findings on the deterrence question and strategies for future research. Journal of Criminal Justice, 4, 175-189.
- Erickson, M. L. & Gibbs, J. P. (1978). Objective and perceptual properties of legal punishment and the deterrence doctrine. Social Problems, 25, 253-264.
- Erickson, M. L. & Gibbs, J. P. (1979). On the perceived severity of legal penalties. The Journal of Criminal Law and Criminology, 70, 102-116.
- Erickson, M. L., Gibbs, J. P., & Jensen, G. F. (1977). The deterrence doctrine and the perceived certainty of legal punishments. <u>American</u> Sociological Review, 42, 305-317.
- Fattah, E. A. (1977). Deterrence: A review of the literature. <u>Canadian</u> Journal of Criminology and Corrections, 19, 1-119.
- Fattah, E. A. (1981). Is capital punishment a unique deterrent? A dispassionate review of old and new evidence. <u>Canadian Journal of</u> Criminology, 23, 291-311.
- Fattah, E. (1983). A critique of deterrence research with particular reference to the economic approach. <u>Canadian Journal of Criminology</u>, 25, 79-90.
- Federal Bureau of Investigation. (1978). Uniform Crime Reports for the United States, 1977. Washington D.C.: U.S. Department of Justice.
- Gibbs, J. P. (1975). Crime, Punishment, and Deterrence. New York: Elsevier.
- Gibbs, J. P. (1978). Another rush to judgment on the deterrence question. Criminology, 16, 22-30.
- Gibbs, J. P. (1979). Assessing the deterrence doctrine. <u>American</u> Behavioral Scientist, 22, 653-677.
- Grasmick, H. G. & Appleton, L. (1977). Legal punishment and social stigma: A comparison of two deterrence models. <u>Social Science Quarterly</u>, 58, 15-28.
- Grasmick, H. G. & Bryjack G. J. (1980). The deterrent effect of perceived severity of punishment. Social Forces, 59, 471-491.
- Grasmick, H. G. & Green, D. E. (1980). Legal punishment, social disapproval and internalization as inhibitors of illegal behavior. Journal of Criminal Law and Criminology, 71, 325-335.

- Grasmick, H. G. & Green, D. E. (1981). Deterrence and the morally committed. The Sociological Quarterly, 22, 1-14.
- Grasmick, H. G. & Milligan, H. (1976). Deterrence theory approach to socioeconimic/demographic correlates of crime. Social Science Quarterly, 57, 608-617.
- Greenberg, D. (1977). Crime deterrence research and social policy. In S. Nagel (Ed.), <u>Modeling the Criminal Justice System</u>. Beverly Hills: Sage.
- Hamblin, R. L. (1974). Social attitudes: Magnitude measurement and theory. In H. Blalock (Ed.), <u>Measurement in Social Science</u> (pp. 61-120), Chicago: Aldine Publishing Co.
- Hamilton, V. C. & Rotkin, L. (1979). The capital punishment debate: Public perceptions of crime and punishment. Journal of Applied Social Psychology, 9, 350-376.
- Hamilton, V. L. & Rytina, S. (1980). Social consensus on norms of justice: Should the punishment fit the crime? <u>American Journal of</u> Sociology, 85, 1117-1144.
- Henshel, R. L. (1978). Considerations on the deterrence and system capacity models. Criminology, 16, 35-46.
- Jacob, H. (1980). Deterrent effects of formal and informal sanctions. In J. Brigham & D. Brown (Eds.), Policy Implementation. Beverly Hills: Sage.
- Jensen, G. F., Ericson, M. L. & Gibbs, J. P. (1978). Perceived risk of punishment and self-reported delinquency. Social Forces, 57, 57-78.
- Klein, L. R., Forst, B., & Filatov. (1978). The deterrent effect of capital punishment: An assessment of the estimates. In A. Blumstein J. Cohen, & D. Nagin (Eds.), <u>Deterrence and incapacitation</u>: Estimating <u>the effects of criminal sanctions on crime rates</u>. Washington, D.C.: National Academy of Sciences.
- Kraut, R. E. (1976). Deterrent and definitional influences on shoplifting. Social Problems, 23, 358-368.
- Lodge, M. (1981). <u>Magnitude estimation. Sage University Paper series</u> on Quantitative Application in the Social Sciences, 07-025. Beverly Hills: Sage.
- Lotz, R., Regoli, R. M. & Raymond, P. (1978). Delinquency and special deterrence. <u>Criminology</u>, 15, 539-548.
- Meier, R. F. & Johnson, W. T. (1977). Deterrence as social control: The legal and extralegal production of conformity. <u>American Sociological</u> <u>Review</u>, 42, 292-304.

- Michigan Department of Corrections (1978). Dimensions 1977-78. Lansing: Michigan Department of Management and Budget.
- Michigan Department of Corrections (1981) <u>1980 Annual Statistical Report</u>. Ionia: Michigan Reformatory Vocational Print Shop.
- Michigan Department of State Police. (1981). <u>1980 Uniform Crime Reports</u>, State of Michigan. Lansing: Michigan Department of State Police.
- Minor, W. W. & Harry, J. (1982). Deterrent and experiential effencts in perceptual deterrence research: A replication and extension. Journal of Research in Crime and Delinquency, 19, 190-203.
- Nagin, D. (1978). Crime rates, sanction levels, and constraints on prison population. Law and Society, 12, 341-366.
- Parker, J. & Grasmick, H. G. (1979). Linking actual and perceived certainty of punishment, Criminology, <u>17</u>, 366-379.
- Paternoster, R., Saltzman, L., Chiricos, T., & Waldo, G. (1982). Perceived risk and deterrence: Methodological artifiacts in perceptual deterrence research. <u>The Journal of Criminal Law and Criminology</u>, 73, 1238-1258.
- Paternoster, R., Saltzman, L. E., Waldo, G., & Chiricos, T. (1983). Estimating perceptual stability and deterrent effects: The role of perceived legal punishment in the inhibition of criminal involvement. The Journal of Criminal Law and Criminology, 74, 270-297.
- Richards, P. & Tittle, C. (1982). Socioeconomic status and perceptions of personal arrest probabilities. Criminology, 20, 329-346.
- Salem, R. G. & Bowers, W. J. (1970). Severity of formal sanctions as deterrent to deviant behavior. Law and Society Review, 5, 21-40.
- Saltzman, L., Paternoster, R., Waldo, G., and Chiricos, T. (1982). Deterrent and experiential effects: The problem of causal order in perceptual deterrence research. Journal of Research in Crime and Delinquency, 19, 172-189.
- Sebba, L. (1978). Some explorations in the scaling of penalties. Journal of Research in Crime and Delinquency, 15, 247-265.
- Shelly, P. L. & Sparks, R. F. (1980, November). Crime and punishment. Paper presented at the meeting of the American Society of Criminology, San Francisco, CA.
- Silberman, M. (1976). Toward a theory of criminal deterrence. <u>American</u> <u>Sociological Rewiew</u>, <u>41</u>, 442-461.
- Teevan, J. (1976). Subjective perception of deterrence (continued). Journal of Research on Crime and Delinquency, 13, 155-164.

- Teevan, J. (1977a). Deterrent effects of punishment: subjective measures continued. <u>Canadian Journal of Criminology and Corrections</u>, <u>18</u>, 152-160.
- Teevan, J. (1977b). Deterrent effects of punishment for breaking and entering and theft. <u>Canadian Journal of Criminology and Corrections</u>. 19, 123-149.
- Tittle, C. R. (1978). Comment on "Deterrence: Theory versus practice." <u>Criminology</u>, <u>16</u>, 31-35.
- Tittle, C. R. (1980). Evaluating the deterrent effects of criminal sanctions. In M. Klein and K. Teilmann (Eds.), <u>Handbook of Criminal Justice Evaluation</u> (pp. 381-402), **Beverly Hills: Sage**.
- Waldo, G. P, & Chiricos, T. G. (1972). Perceived penal sanction and self-reported criminality: A neglected approach to deterrence research. Social Problems, 19, 522-340.
- Warr, M., Gibbs, J., & Erickson, M. (1982). Contending theories of criminal law: Statutory penalties versus public preferences. Journal of Research in Crime and Delinquency, 19, 25-46.
- Warr, M., Meier, R., & Erickson, M. (1983). Norms, theories of punishment and publicly preferred penalties for crimes. <u>The Sociological</u> Quarterly, 24, 75-92.
- Webb, S. D. (1980). Deterrence theory: A reconceptualization. Canadian Journal of Criminology, 22, 23-35.
- Williams, K. & Erickson, M. (1981). Potential for crime and knowledge of legal sanctions. <u>Deviant Behavior: An Interdisciplinary Journal</u>, <u>2</u>, 287-304.
- Williams, K.R. & Gibbs, J. (1981). Deterrence and knowledge of statutory penalties. The Sociological Quarterly, 22, 591-606.
- Williams, K. R., Gibbs, J. P., & Erickson, M. L. (1980). Public knowledge of statutory penalties. Pacific Sociological Review, 23, 105-128.

