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Don Randall Haley
Louisiana State University and Agricultural & Mechanical College

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ALCOHOL ABUSE AND VIOLENT CRIME: A CONTEMPORARY EXAMINATION AND COMPARISON OF ADULT MALE AND FEMALE VIOLENT AND NONVIOLENT CRIMINAL OFFENDERS

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in Partial fulfillment of the requirements for the degree Doctor of Philosophy in The School of Social Work

by

Don Randall Haley
B.A., Louisiana State University, 1987  M.S.W., Louisiana State University, 1993  December, 2000
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ABSTRACT

The focus of this study was to investigate the relationship between violent criminal activity and alcohol abuse, and to further extend the knowledge about these phenomenon which currently appear in the literature. The association between these two variables has been asserted for many years, but few definitive correlations have been established using representative data. This study sought to determine if a statistical relationship exists between alcohol abuse rates of inmates serving time in Louisiana and their convictions for violent crimes.

The research design used to investigate the relationship between alcohol abuse and violent criminal behavior was non-experimental and correlational. Interviews and a questionnaire which obtained basic demographic information, criminal history parameters and self-reported alcohol consumption rates were used in conjunction with the Brief Michigan Alcoholism Screening Test (MAST) and case record reviews. A representative sample of inmates from the Louisiana Department of Public Safety and Corrections was taken using random selection. The inmate sample was subdivided into groups of either violent or nonviolent offenders.
for comparative purposes (n = 424; 359 adult males and 65 adult females). The model for data analysis was a cross-tabular comparison of multiple interview and questionnaire results using multiple linear regression. Six demographic variables were controlled for to eliminate extraneous variance and to determine statistically significant differences.

Alcohol abuse and whether an inmate was charged with a violent crime were found to be inter-related (p = .048). When the violent crime primary offense category was regressed on inmate alcohol abuse diagnoses controlling for gender, age, race, occupation, income and educational attainment, a significant statistical interaction effect continued to be observed (p = .049).
INTRODUCTION

Purpose and Objectives of the Study

This study has two purposes: to investigate whether the act of abusing alcohol significantly increases the possibility for interpersonal violence to occur during the commission of a crime and to identify what overall role the concept of alcohol abuse plays in the occurrence of violent crime. The available published research "provides numerous accounts of close associations between excessive drinking, alcoholism, alcohol related problems, and violent crime" (Myers, 1984; p. 53). This conclusion is however complicated and confused by what Myers (1984) labels as a large number of "discrepancies and ambiguities" in diagnostic criteria, reporting measures, definition issues and other matters having to do with lapses in methodological rigor (p. 53). This research sought to accomplish both purposes above while correcting the above mentioned deficiencies.

To address some of the ambiguities and discrepancies identified in the first paragraph, this study examined alcohol usage among a randomly sampled selected group of individual violent and nonviolent criminal offenders. General demographic and biographic data from the sample was combined and subdivided to provide alcohol use and
intake patterns surrounding criminal events (i.e., the situational context of violent crime which is influenced by excessive alcohol use). The Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSM-IV) and the Uniformed Crime Reports (UCR) were used to meet the specific needs of this study relative to diagnostic criteria and criminal conduct (American Psychiatric Association [APA], 1994 & United States Department of Justice [US DOJ], Federal Bureau of Investigation [FBI], 1998). APA (1994) reports that DSM-IV diagnoses also correspond one-to-one with the most accepted and used reporting mechanism for medical conditions, the International Classification of Diseases, Ninth Revision (ICD-9). The UCR which is published yearly by the FBI is the most widely reported and consistently accurate collection of data for measuring crime in the United States (US DOJ, 1997).

Problem to be Studied

Alcohol related problems are widespread in the United States. The negative effect that alcohol abuse has had on American society is clearly evident. The celebratory nature of drinking is glorified and deeply rooted in this culture as is evidenced by 18 million alcohol abusing and dependent Americans (Anderson, 1995).
Anderson also reports that 88% of the nation's 8-12 year olds have tried alcohol, including 77% in the last year, 71% in the last month and approximately 3.4% drink on a daily basis. The numbers also indicate the potential for serious future alcohol related problems.

Epidemiologists estimate that there are 98 million regular drinkers, and 87% of men as well as 79% of women have tried alcohol (Anderson, 1995). Usage rates among children 12-13 are up alarmingly, and in the 12-17 year old age cohort, there may be as much as a 20% rate of problem drinking (Anderson, 1995). In 1987, Denzin estimated that 7 in 10 Americans drink at least occasionally creating a per capita consumption rate of nearly 2½ gallons per person which generates 10 to 12 million chronic alcoholics. In addition, as many as 6-12 million children live in homes with at least one alcohol abusing parent (Anderson, 1995). Finally, an estimated 30% of the homeless population in this country abuse beverage alcohol (Anderson, 1995).

**Problem Summary/Reason for This Research**

The literature does provide many accounts of a close relationship between alcohol use and the incidence of violent crime measured in various ways. This evidence does however primarily come from less methodologically
rigorous or comprehensive sources such as qualitative case studies, descriptive statistical analyses of prison and arrest records, laboratory experiments which biochemically link human aggression to alcohol, comparative studies which are conducted independently across international borders where differing alcohol use patterns occur and journal recordings of professional or semi-professional opinions from judicial, penal, medical and/or law enforcement personnel (Myers, 1984). While the conventional research wisdom into this topic largely supports the view that violence and alcohol consumption are associated, problems of specificity with this connecting relationship indicate the need for further investigation, explanation and analysis.

Additional examples of literature deficiencies in this area include the following: considerable variation in the reporting of alcohol involvement in violent crime and the number of reporting measures used to describe alcohol abuse. In many cases drinking was noted only at the time of the committed offense and neither the patterns of consumption were researched nor how much alcohol was consumed. If drinking at the time of arrest was indicated, it could have actually taken place long after the crime (even months) and
thus provides little in the way of usable information
to make an actual connection between the alcohol consumed
and the act of violence (c.f., Room, 1978; Roizen and
the primary assailants which were identified in his
study indicated widely varying "habitual drinking"
patterns (from 4-66% of the time). This also suggests
a pattern of consistent usage, but not necessarily
diagnosed abuse and again a lack of succinct
quantification.

Another problem which emerges in the currently
available literature is the number of reporting measures
which are commonly used which identify "alcohol abuse."
This is confusing in terms of who is in and who is out
of this category (Myers, 1984). Multiple ambiguities
surround a working definition of alcohol abuse (or the
alcoholic, alcoholism etc.). Researchers have debated
the use of blood alcohol content (BAC), police reports,
court proceedings, self-reports, family interviews or
even accounts given by alcohol related crime victims
as the determining factor in whether or not an offender
is an alcohol abuser (see: Myers, 1984; Pernanen, 1991;
Forest & Gordon, 1990). Criminal activity which is
violent is much easier to fix by using legal codes which
are common to most states, municipalities or the federal government. This fact notwithstanding, few researchers bother to specify crimes or quantitatively operationalize the violence variable or insert demographic controls to factor out various other intervening and superfluous analytical effects (see Myers, 1984).

Many reviewers therefore agree that no consistent predictive conclusions can be drawn from existing research attempting to connect alcohol abuse and violent adult crime (e.g., Szabo, 1991; Donovan, 1992; Marshall, 1992; Wieczorek, 1993 etc.). The authors listed above have criticized alcohol-crime linkage research publications (e.g., Pernanen, 1991) and suggest that multiple interactive factors are operating in these types of studies (thus indicating failure to establish conclusive linkage). These critical authors have published in varied scientific journals and are from wide academic areas (e.g., the *New England Journal of Medicine*). For these reasons, the actual role that an alcohol abusing lifestyle plays in certain violent crimes remains undetermined. A more comprehensive look at these two highly interrelated variables was therefore necessary.
LITERATURE REVIEW

A comprehensive review of the published literature on the topic of alcohol abuse and violent crime was conducted. In order to organize the information in this area, the literature is discussed under the following topical schema: the historical context of the alcohol and crime problem, a review of key conceptual definitions and criminal causation, the alcohol and crime connection, general theoretical, etiological and epidemiological perspectives and an overview of the literature. The information selected for inclusive review is structured in chronological order whenever possible (most dated to most recent).

The literature review revealed that there are approximately 5,300 alcohol abuse and nearly 200 violent crime entries in the data base. Roman (1991) cites three predominant reasons for the proliferation in alcohol related studies:

1. The sheer number of studies is related to the massive infusion of public and private research research dollars after the 1960s (e.g., the creation of the National Institutes of Alcohol Abuse and Alcoholism [NIAAA]).
2. The rising dominance of psychological theory and the behavioral sciences (displacing the more broadly based sociological perspectives).
3. Growth in the social constructionist perspective on alcohol issues/problems related to the decline in dominance of medicalized perspectives (p. 12)
Cisin (1979) provides a framework for examining "alcohol-related scholarship" which will yield strong, credible, independent and generalizable publications in terms of methodology (in Roman, p. 16). A paraphrase of Cisin's suggestions includes tightening up of the "jargon" relative to alcohol abuse to eliminate ambiguity, reduce terminology created for political convenience and specifically operationalize alcohol abuse as a variable (p. 16 as above). Cisin also argues that freeing alcohol abuse research from "dogma" primarily connected to the medical and disease model will reveal the most useful research in this area (p. 16).

Historical Context

As far back as the late nineteenth-century, writers from multifaceted backgrounds have addressed the connection between alcohol abuse and criminal activity. Richmond (1883) provided an account of his dealings with criminals from the perspective of an 1880s American barrister. His point of view includes dozens of eye witness accounts of criminal offenders who are inebriated before, during and/or after the commission of their particular crimes. The information ranges from court and jail scenes with drunken prisoners to descriptions of violent crimes (including murders).
committed under the influence of alcohol (Richmond, 1883). Many authors from this period are theologically oriented and often connected with one or more of the various period temperance movements. Richmond (1883) clearly identifies with these types of trends and his writing is overwhelmingly influenced by anti-intemperance forces.

Shupe (1954) makes the strongest case from the middle of the twentieth-century for alcohol being a substantial factor in the incidence of violent crime. Through his data he posits seven out of ten offenders arrested immediately after the commission of a violent felony were under some level of influence of alcohol. Sixty-four percent were reported as being severely impaired (Shupe, 1954). A further expansion of his work indicated that the chance of a "shooting" or murder being committed by a person under the influence of alcohol is more than four to one (Shupe, 1954). Shupe's data collection methods are however suspect in that many interviews or blood alcohol content (BAC) analyses were conducted in excess of 24 hours after their last consumption of alcohol. Furthermore, he may have been overly selective in choosing participants favorable to his study and his survey area is very limited and lacks any formulation for generalizability (Shupe, 1956).
The American Business Men's Research Foundation has suggested that the majority of the published literature regarding the overwhelming evils of alcohol in the early twentieth-century in the United States originated in the nation's religious community (Furnas, 1956). The American Illustrated Medical Dictionary, 22nd edition, first labeled alcohol as a poison (Furnas, 1956). Wechsler, a pioneer of standardized testing measures for intelligence, was part of a post World War II effort to reinstate the scientific method's influence in describing the resulting difficulties that have been traditionally thought of as accompanying alcohol abuse (Furnas, 1956).

The proliferation of automobiles in the United States created a new criminal phenomenon, driving under the influence, which greatly affected the research community's interest in studying alcohol abuse (as a measure of continuing scientific orientation toward addressing contemporary problems). Early top down descriptive statistical surveys of measures of central tendency relative to alcohol involvement in criminal activity began to appear in the literature in the late 1940s (Furnas, 1956). For example, a reported survey indicated that six of ten felony offenders in the Washington State penitentiary system declared that
alcohol was a factor in their criminal activity (Furnas, 1956). Their crimes included murder, assault, various sex crimes and manslaughter. Furnas (1956) also presented numerous other statistics which loosely link alcohol usage and different types of crime. This included elementary evaluations of the Uniform Crime Reports (UCR) from the FBI, chemical analyses of BAC and criminal statistics in a region by region comparison. This research stops short of concretely linking the two variables and makes no causative assertions.

Pittman and Gordon (1958) first addressed the alcohol crime connection from a formal theoretical perspective in a brief portion of their book. Their criminological angle of approach is called the "Sociocultural Perspective" which attempts to explain contributory factors in terms of the drinking crime-continuum. The authors provide numerous statistics showing criminal act progression from minor crimes to violent offenses when alcohol is involved in that eventual felon’s life in a significant way (Pittman & Gordon, 1958). This tabular comparison was also narrowly focused and taken from aggregate secondary data compiled in the state of Connecticut. The writers of this research attempt to use social history information in various combinations as criteria for
the creation of different profiles which can be used as predictors of an escalating alcohol and crime problem. As a basis of support, Pittman and Gordon (1958) included several interesting case studies of offenders whose lives were dominated by alcohol abuse. This combination of county level data is straightforwardly reported. Using subsequent case studies as reinforcement for aggregated data is a persistent pattern that dominates the literature in this area for decades to come (up to and including some of the studies published in the 1990's).

Beginnings of Modern Alcohol-Crime Research

Parker and Rebhun (1995) discuss the historical significance and place of alcohol abuse prior to their macro level study of alcohol availability versus the homicide rate. They submit that the Sumerians (originators of one of the first codified legal systems) made beer more than 5,000 years ago. The authors also point out the general historicity of alcohol use in antiquity through the original romance culture's worship of gods of alcohol and the firm place of fermented juices in Central American Native society and worship (e.g., the Aztecs of Mexico).

This cultural trending toward alcohol abuse continued into the new world from the colonial empires.
Despite Puritanism's influence in North America, fermented drinks are served on tables in Colonial America from the 1600's on (Parker & Rebhun, 1995). It is therefore traditional according to these authors, to then link alcohol with the progression of violence in the United States down through the centuries (e.g., drunken gunfighters in the nineteenth-century or bootleggers and gangsters in the 1920s).

In spite of this problem of linkage clarity which is presented, Parker & Rebhun (1995) go on to point out that there is "very little direct [empirical] evidence from research on homicide in which alcohol consumption is included in the analysis along with other important predictors" (p. 41). It should be noted that this research is concerned with theoretical criminology (non-quantitative theory building) rather than the strictures of a purely empirical study. The authors do however use a modification of the chi-square statistical procedure in analyzing alcohol availability and the homicide rate (with poverty as a control variable).

Parker and Rebhun discuss the "underdeveloped nature" (p. 3) of research in this area despite work done by Wolfgang's 1958 study and a significant body of research published by Kai Pernanen (see Pernanen,
1976, 1979, 1981, 1991). They also succinctly point out the need for an "empirical model" sufficiently complex to account for homicide with alcohol as a causal factor with enough circumspectly inserted controls to rule out confounding influences (p. 5).

Linkage Between Alcohol and Crime in the Literature

The DSM-IV (1994) describes alcohol abuse as "the most frequently abused brain depressant and a cause of considerable morbidity and mortality" (p. 194). Furthermore, approximately 90% of Americans have some type of experience with alcohol (either personally or by association) and of these, a large percentage has had some kind of adverse alcohol-related "life event" such as driving after drinking too much or missing school or work (DSM-IV, 1994; p. 194). The powerful addictive nature of alcohol is often used as a facilitator of social acceptance among young Americans, perhaps explaining the fact that the leading cause of death in the age range 15-24 is a combination of alcohol connected suicide, homicide and drinking while driving accidents (Morrison, 1990).

When the usage rates of alcohol are then factored in with the incidence of violence, the negative societal impact is profound. Over 50 years ago, criminologist Hans von Hentig (1948) referred to alcohol as one of
the primary "toxic compounds" which has "practical significance in crime" (p. 156). This is, according to Hentig (1948) due to the excitation effects and loss of moral inhibitions which can in turn lead to "homicides, assaults, malicious damage and sex offenses" (p. 156). Myers (1984) added some years later a set of widely varying statistics which concluded that from 24-86% of the "assailants" and 4-87% of the victims in assault and homicide cases noted alcohol consumption at the time of the offense (p. 53).

In more recent research based entirely on qualitatively obtained data, Forest and Gordon (1990) reported that in the United States, approximately 55% of the offenders and 52% of the victims in homicide cases were under the influence of alcohol at the time of the commission of the crime. If correct, these percentages have some interesting interpretations when they are combined with more recent crime statistics. Namely, these combined findings might suggest that approximately 11,878 homicides committed in the United States involved the use of alcohol by the assailant (UCR, 1998). Again according to these calculations, approximately 11,230 of the victims of these crimes were also under the influence of alcohol (UCR, 1998). This translates into about 407 homicide offenders in
Similarly, Pernanen (1991) asserts that 24% of offenders convicted of rape and 31% their victims were drinking at the time of the recorded offense. These calculations are reasonable, but not necessarily reliable due to how they were obtained and what they are generalized to. It should also be noted that these data provide arrest statistics connected to adjudications only and do not account for non-prosecutions, certain types of plea bargain agreements or non-judicial punishments.

The Justice Department's analysis of the UCR in 1998 indicated that 7.7 million violent crimes occur each year in which alcohol or both alcohol and drugs were used by attackers (US DOJ, 1998). An estimated 36% of the 5.3 million adult offenders in jail or prison reported drinking at the time of their arrests. The same report concluded that 1/5 victims experienced a financial loss from alcohol related violence as well as an average out-of-pocket expense of $1,500 (US DOJ, 1998). The 500,000 victims of alcohol-related violence of all kinds (including domestic and other potentially misdemeanor assaults) created an approximated $400 million financial loss (US DOJ, 1998).
In addition the case for linkage between alcohol abuse and crime in general is strengthened by the fact that there were 2,740,567 alcohol related general criminal arrests in the United States in 1997 (Bureau of Justice Statistics [US BJS], 1998). This figure includes approximately 36,514 occurrences in the state of Louisiana (US BJS, 1998).

Among many socially venerable minority populations, such as Native Americans, the incidence of alcohol related arrests is substantially higher. For example, the arrest rate relative to alcohol among Native Americans is eight times higher than whites and three times larger than African Americans (c.f., Armstrong, Guilfoyle & Melton, 1992, Anderson, 1995). Additionally, 80% of homicides among Native American populations are alcohol-related (Anderson, 1995). Referring to Alaskan Native peoples and alcohol-related violence (e.g., domestic violence, child abuse, unintentional injury and suicide etc.), Lally (1995) stated "alcohol is a common contributor to these grim statistics on death and violence" (p. 194).

Additionally, in the United States in 1997 there were 570,948 arrests for drunkenness, 599,538 arrests for disorderly conduct involving alcohol and 21,272 arrests for drunken vagrancy (US BJS, 1998). The Bureau
of Justice Statistics (1998) also reports 1,122,518 driving under the influence (DUI) offenses and 426,291 liquor law violations in the United States as well 14,003 DUI offenses and 2,128 liquor law violations in the state of Louisiana.

More recent research by Singer and Hussey (1995) concluded that alcohol was in some way involved in 49% of the murders and 35% of the suicides in the United States. De Anda (1995) called alcohol "the drug of choice and drug most frequently abused by the adolescent population" (p. 26). These figures also included 39% of the 10-12th graders and nearly 40% of the 12-17 year olds listed as abusing alcohol.

Although many of these descriptive statistics are related to nonviolent offenses, further investigation of an initial general hypothesis that alcohol abuse is a significant correlational factor relative to the incidence of violent crime in the United States is warranted.

Definition of Key Concepts

One of the chief sources of ambiguity in establishing a correlation between alcohol abuse and violent crime is loose definition of variables (both in the broader context of alcohol abuse versus violent crime and the subdivided comparisons). In other words,
the literature reviewed presented a lack of consistent conceptualization of phenomenon related to the two variables, alcohol abuse and violent crime.

This problem has been evident since a French physician first identified alcoholism proper in his doctoral dissertation in 1886 (Keller, 1982). Keller (1982) also writes that all defining efforts regarding alcohol abuse have several common elements including people who can not help drinking excessive amounts of alcohol repetitively and usually to the point of intoxication, which in turn harms them. He also insists that all reporting measures include a symptomatic loss of control. Keller (1982) admits that an excessive number of variations in alcohol abuse definitions has created difficulty in defining the problem for further study.

**Improving Definitions**

In another study published that same year, Keller (1982) gives an account of the effort by various academic disciplines to begin to demonstrate correlation between alcohol and societal problems (including crime) in a scientific and comprehensive manner. He includes reviews of alcohol studies from political science, criminology, psychology and others, but the dated nature of the material handicaps his presentation and its usefulness. For example, the connection between alcohol and
aggression as demonstrated by psychology is illustrated through psychoanalytic studies in penitentiary environments (Keller, 1982). An attempt to reinstate the scientific method into this process using psychoanalysis reflects a poor choice in terms of modality. While psychoanalysis remains a useful clinical technique, it has been largely discredited in terms of scientific research value (Seligman, 1990).

Keller (1982) does however provide additional useful narrowing of definition variables relative to alcohol abuse and certain ordinary statistics which are helpful in terms of historical patterns and perspectives. For example, he provides decade by decade drinking and driving death numbers, critical dollar costs for various alcohol/crime problems and studies of twins used to identify familial patterns of potential offenders (Keller, 1982).

Clinical Definitions

A working definition of alcohol abuse is important, not only to this research, but also in semantical terms relative to funding implications for treatment, other research formulation and the creation of public policy. The American Medical Association (AMA) has labeled alcoholism a "disease" since the late 1950s (Denzin, 1987). The World Health Organization (WHO) defines
alcoholism as "a chronic disease manifested by repeated
implicative drinking so as to cause injury to the
drinker's health or social or economic functioning"
(Hawks, Loumane, Moser & Rootman, 1984).

The alcoholic is further described as "those
excessive drinkers whose dependence on alcohol has
attained such a degree that it shows a noticeable mental
disturbance or an interference with bodily or mental
health" (Hawks et al., 1984). Unfortunately the term
alcohol abuse is often used interchangeably with
alcoholism as is the alcohol abuser with the alcoholic.
A further behavioral description of a typical alcohol
abuser is necessary to confine the research parameters
properly. These parameters should include for study
participant offenders: the consumption of large
quantities of alcohol (as measured in standardized units)
over a number of years, the inability to refrain from
drinking and acute damage to physical or psychological
health and social standing (Burns, 1990).

The DSM-IV is the American Psychiatric Association's
(APA) contemporary standard diagnostic instrument
relative to alcohol abuse (APA, 1994). The DSM-IV lists
numerous alcohol induced disorders which are not the
primary emphasis of this study. Alcohol Abuse (305.00)
is used to establish diagnostic criteria for inmate
subjects with substance abuse problems (APA, 1994). Further descriptions of these raw diagnosis categories are provided in the methods section regarding variable operationalization.

Quantification

Other writers such as Maxmen (1986), Reid (1989), Watson (1989) and Seligman (1990) have further quantified and narrowed alcohol abuse in terms of consumption amounts and other exact concerns. When quantities of alcohol consumption are used in combination with the DSM-IV and its clinical description of alcohol abuse, diagnostic criterion can be conclusively tied together.

Violent Crime Described

Literature which describes violent crime is much easier to obtain and presents significantly less confusion. Weiner and Wolfgang (1982) define violent crime as the physical application of force which is likely to result in injury to people. Typically this includes crimes such as homicide, rape, armed robberies and various forms of assault. Wolfgang (1981) also suggested that violent crimes are ordinarily (but not always) committed with, but not necessarily restricted to the use of, some form of a weapon.

The Louisiana Revised Criminal Code Statutes were also reviewed relative to the violent crime. This
information is straightforward and legal in its presentation. Each type of homicide, assault and battery and sexual crime is defined in very concrete terms as is relative culpability and the elements of the crime.

The UCR presents eight reportable crime categories each year, four violent and four non-violent felony offenses (United States Department of Justice [US DOJ], 1997). These categories will be used to sort the violent criminal from the comparison groups. Violent crimes are limited to homicide (all varieties and degrees), rape, aggravated assault and armed robbery (US DOJ, 1997). Non-violent crimes include larceny theft, burglary, auto theft and arson (US DOJ, 1997).

Criminal Causation

An elementary discussion of the causal factors involved in violent crime is an integral part of establishing alcohol abuse as a part of this process. Wolfgang (1958) studied homicide patterns in Philadelphia, Pennsylvania in search of causes of criminality. In his rather large study (N = 588) conducted over a lengthy period of time (1948-1952), Wolfgang found several interesting correlations between homicide and alcohol usage. Alcohol was present with both victim and offender approximately 43.5% of the time when the crime was committed. The percentages drop
off rather dramatically for victim and offender only (9.2 & 10.9% respectively). Typically, Wolfgang also found that alcohol was used on each of the preceding seven days by assailant and victim in 50% of the cases.

While Wolfgang's information is useful as background material, his study is dated with little connection to today's social mores. Furthermore, he characterizes only use, not typical patterns or the abuse which this study seeks to identify.

Schafer (1969) asserts that there is no single unified theory of the cause of crime. He discusses historical criminology to include Cesare Beccaria's classical perspective which saw crime as "rational hedonism" (p. 103). Schafer also details the theories of Lombroso, Voltaire, Montesquieu, Hume, Rousseau, Locke, Hume, Merton, Durkheim, Bacon, Sutherland, Shaw & McKay as well as Sykes & Matza. In all of these theorist's perspectives from 1700 till the 1970s, little or no interest in the role of alcohol in criminal actions was noted (with the possible exception of Bacon in later years beyond the publication date of Schafer's Theories in Criminology.

As a rejoinder to this presentation by Schafer, Roman (1991) asserts that the "most systematic and influential sociological explanation of criminality"
is differential association theory, developed primarily by the above mentioned prominent criminologist Edwin Sutherland (p. 158). This theoretical perspective barely validates the relationship between alcohol and crime.

Wolfgang and Weiner (1982) researched the biological correlates of alcohol and criminal violence. The formulaic expression that the authors labeled as the "algebra of aggression" concluded that the introduction of excessive amounts of alcohol might potentially make predispositions of susceptibility to violent criminal acts (p. 124). Alcohol here is further described as only a situational and not a causative factor in violent crime (i.e., alcohol could enhance or reduce the chance of violence). Their final laboratory obtained conclusion suggested that small doses of alcohol equaled less aggression, while large doses (abuse) equaled more aggression.

In a later work entitled *Pathways to Criminal Violence*, Weiner and Wolfgang (1989) provide an even more skeptical analysis of the role which alcohol plays in violent crime. They submit that "close examination of the drinking-violence relationship reveals that the capacity of drinking, by itself, to explain violent acts is quite limited" (p. 49). This is true although they admit that alcohol's biological effects on
cognition, mood and other physiological factors certainly contribute to a propensity for violence. Their results are thus contradictory and inconclusive.

Finally, Collins (1989), points out that research efforts are limited by the fact that alcohol usage (or even abuse) produces few completely uniform case-to-case effects. Collins (1989) introduces the "theoretical framework" of the "drinking-violence relationship" as a continuum leading toward what he calls "disinhibition" or the loosening of restraints on potential violent actions (p. 49).

Collins also publishes important (but dated) correlational statistics relative to crime and alcohol consumption. For example, 50% of rapists surveyed had some alcohol in their urine and 45% were over the accepted legal limit at the time of their arrests (BAC > .01). Percentages for all violent offenders in his study were 40 and 60 respectively (N = 77). Unfortunately, no conclusions can realistically be drawn here with such a small survey, no other controls inserted and the extreme limitations of external validity in this case. Collins (1989) also gives some information which links (albeit tacitly) alcohol use to domestic violence, victimization and most importantly to the overall level of community violence.
General Theoretical Foundations

Roebuck (1967) refers to the dual-relationship between drunkenness and assault in the broader context of alcohol and (any) crime. He provides possible levels of connection between alcohol and crime which in turn may lead to alcohol-related interpersonal violence. The actual degree of association between what Roebuck (1967) calls intoxication and criminal charges (e.g., assault, murder and sex offenses with a victim) is often reported in the literature. The qualitative directness (or indirectness) of this relationship is however regularly omitted. Excessive drink could therefore be according to Roebuck, "parallel to, rather than the cause of, criminality" (p. 155). UCR data (again from the late 1960s), indicates alcohol involvement in approximately 35% of all arrests. This figure is dominated by public liquor law violations rather than violent acts. Driving under the influence (DUI) or driving while intoxicated (DWI) numbers skew collective crime rates data in this area in the same way today.

Blum (1981) added a third major variable to the analytical mix in what is a significant leap forward in terms of research question sophistication. His written text enumerates introductory theoretical alcohol/violence premises and compares them (qualitatively) to various
setting variables. The author also discusses pharmacological principles and their relationship to the drug alcohol's effect on violence in general. The biochemical link between alcohol and aggression is the primary focus of his research. Personality influences (to include mood and emotion) and interactions with alcohol and other situational factors such as culture conclude his summary findings. This research is fully qualitative and provides little or no predictive value or any possibility or generalized application.

Kai Pernanen published two early works which probably come closest to demonstrating a causal relationship between "heavy drinking" and the high incidence of violent crime in America (Pernanen, 1976; Pernanen, 1981). His ultimate conclusion is however that the two coexisting variables are only "positively correlated." He is somewhat elusive and ultimately unwilling to assert cause (especially in terms of suggesting that alcohol abuse is the "prevalent" cause). Pernanen (1976) offers a series of very telling conclusions which defend his correlational assertions:

1. Alcoholics may have a greater risk of being apprehended by the police.
2. Due to the higher risk of acute use of alcohol at any time, alcoholics are at a higher risk of displaying violent behavior, whatever the appropriate causal models of a situational nature.
3. Prolonged excessive alcohol use may be connected with predispositional attributes that increase
the probability of aggressive behavior in connection with acute alcohol use.

4. Prolonged excessive alcohol use may give rise to predispositional changes in the individual, which outside of any alcohol use situations, increase the probability of violent behavior. An example is brain damage.

5. Prolonged excessive alcohol use may be conjunctively [not causally] connected with alcohol use patterns that also in non-alcoholics may give rise to states of the organism that increase the likelihood of aggressive behavior. Poor nutritional habits when drinking may lead to hypoglycemia and binge drinking may lead to REM-sleep deprivation. Both conditions by themselves increase the likelihood of violent behavior. In addition, there may be an interactive effect with alcohol use.

6. Prolonged excessive users of alcohol may, due to developmental or genetic factors, belong to a subpopulation that through a common cause, such as early childhood experiences of affective disorder, shows a higher probability of antisocial behavior and among these, violent behavior.

7. A large proportion of excessive alcohol users are subjected to societal and interpersonal reactions [forcing them] into subcultures where violent behavior is condoned, expected, technically necessary for functioning. (pp. 435-436)

Pernanen lays a precise foundation for the theoretical notion that alcohol abuse is a predispositional factor which correlates in a highly probabilistic manner to the incidence of episodic violence in the United States and subsequently as a natural and logical follow-through, violent crime. In pursuing the theory of concrete linkage, Pernanen's methodology is not suspect. He uses an essay formatted review of numerous biochemical association reports in combination with case study type material (Pernanen, 1981). In this way, the author accurately identifies
alcohol abuse as one of the prevalent influences on overall rates of violent crime.

Wolfgang (1981) draws additional historical perspective from various criminal researchers over the past century. He concluded in his research that serious criminals (long-term [sentenced] felony offenders) have a problem drinking rate which is only marginally higher than that of the non-offender general population (in the United States). This seemingly contradictory literature failed to establish a statistically significant alcohol abuse rate among the inmates listed above when compared to the population at large. He did however admit that his research did find that heavy (or binge type) drinking often preceded violent felony offenses (Wolfgang, 1981). His method included no precise longitudinal or lasting lifestyle correlation (indicating a hidden flaw in survey scope, statistical analysis or methodological arrangement).

Greenburg (1981) believes that after more than 60 years of "scientific analysis," pieces of the empirical puzzle which connect alcohol abuse to violent crime are still missing (from the literature which was current at that time). He categorizes research deficiencies in the following areas related to the application of basic research methods:
1. Multiple and loosely defined concepts of alcohol use, misuse and abuse.
2. Lack of uniformity in defining violence or violent crime.
3. Extremely biased sampling procedures.
4. Failure to control for irrelevant variables.
5. Lack of information relative to the context in which drinking and crime co-occur.
6. An inability to distinguish between the subgroups of users and offenders.

Similarly Collins (in three separate studies: 1981, 1981 & 1983) points out that the idea of an alcohol-crime link is a long-standing supposition that needs to be confirmed or denied. He quotes the nineteenth-century Italian criminologist Lombroso who claimed (in somewhat religious terms) that alcohol was a predominant predispositional factor in criminal activity (of all kinds, not limited to violent crime). He also produces an explanation of the "alcohol-crime relationship," a conjecture relative to a connection between alcohol and criminal "careers," various methodological improvements and suggestions for future research (Collins, 1981). The author summarizes selective empirical alcohol/crime evidence which concentrates on event-based literature such as police records and/or general criminal profiles (Collins, 1983). His information is dated, but nonetheless useful in drawing general relevant preconditions for research and preconclusions for review.
Roman (1981) emphasized situational factors influencing the relationship between alcohol and crime. His research included delimiting parameters in formulation of research problems in this area, a description of "cultural and subcultural norms" which strongly (in his view) influence the epistemic relationship between variable a and variable b as well as some evidence of a "situational ecology" connection (Roman, 1981).

Roizen (1981) presents her research on alcohol and crime as it is related to special minority populations (e.g., African-Americans). The author also defines the two mainly emphasized variables in this study: crime and drinking. She demonstrates the need for alcohol-crime theories which explain "attitudes, reasons [for the link] and perceived effects" (Roizen, 1981).

Hamilton and Collins (1981) published an extensive study of family violence, long thought of to be connected to alcohol abuse. The assault of spouses and children are linked to substance abuse in general and alcohol abuse in particular.

Baldwin and Randolph (1982) compared 30 non-drinkers with 30 light drinkers and 30 moderate drinkers (with those who abstain representing the control group). They
examined alcohol effects on hostility and found "no significant effect nor a significant interaction between level of drinking" and any form of provocation (p. 439). Their overall results were theoretically inconclusive in that they found that alcohol increases aggression in social and moderate drinkers and decreases it in heavy drinkers. Again similar methodological problems develop in this study (e.g., small n, realistic generalizability etc.).

Myers (1984) probably presents the most clearly written and quantitatively oriented research available in this area of alcohol and violent crime (although it is again dated). It further lacks comparative value for American researchers due to its setting in the nation of Scotland. His methodology is unusual, but useful in establishing proper controls for secondary, tertiary and/or intervening variables when attempting to confirm the quantifiable linkage between alcohol and violent crime. He used a number of non-violent offenders as a control group (his terminology) for comparative purposes (actually it is a comparison group; Myers, 1984). He concluded statistically significant correlation between alcohol abuse and violent crime (in Scotland), but lacked a sufficient scope for his survey and reviewed very little other theoretical literature to develop
his conclusions. His work is not generalizable to any larger population. This is a severe limitation.

Holcomb and Adams (1985) studied 259 males in a state forensic center who committed murder while intoxicated (the actual break down for those who were also using drugs simultaneously was not provided). Medical records, social history information and arrest records were used to substantiate intoxication at the time of commission of the alleged offense. These sources combined with the self-reports of the chronically mentally ill are very unreliable (Baldwin and Randolph, 1982). The authors also included Minnesota Multiphasic Personality Inventory (MMPI) scores to suggest coincidental antisocial personality disorder and alcohol abuse.

Lightfoot and Ross (1985) present a contrasting pattern concerning alcohol and violent crime. They believe that the prevalence of problem drinking among criminal offenders varies in a pronounced way according to location and agreeing with Roizen (1981) by cultural conditions. It logically follows, according to the authors that violent criminal alcohol abusers also be categorically assigned in this way (Lightfoot & Ross, 1985). They interject numerous other social or societal factors such as regional poverty rates and long-standing
family disputes into the alcohol-crime mixed relationship equation (Lightfoot & Ross, 1985). These ideas were helpful in formulating control variables in order to isolate the actual statistical relationship between alcohol and violent crime.

Gary (1986) also researched minority populations which are more affected by alcohol abuse and its effects. Gary submits "alcoholism is the number one health problem and the number one social problem in black America" (p. 16). The author uses alcohol as a variable in the increased incidence of black on black violence in urban America. He claims alcohol is "present" in 40-60% of all homicides of African Americans (specifically 59% in Atlanta, 53% in Cleveland, 56% in Miami & 49% in Washington, D.C. according to coroner's reports). Gary's final conclusion using various levels of "methodological rigor" claims to "consistently show a relationship between drinking [how much?] and homicidal violence" (p. 25).

Hesselbrock (1986) reports on the extraordinary influence of childhood behavioral choices which lead to susceptibility to the development of alcohol problems and subsequently adult antisocial personality disorder. Antisocial personality disorder is the hallmark of criminal activity as monitored by the psychiatric,
psychological and general mental health community (APA, 1994). She accurately identifies antisocial personalities and behaviors in a quantitative analysis and then cross-compares these subjects with alcohol abuse variables (Hesselbrock, 1986).

**Contemporary Theory**

Forest & Gordon (1990) inaugurated the prevalence of the use of large bodies of secondary data (in this case national arrest statistics) to research violent crime and alcohol. They compared arrest statistics with self-reported surveys of alcohol consumption rates. Their study is an acceptable format example, but certainly lacks credible reliability due to the method.

Baldwin (1991) provides an additional series of explanations which are similar to those previously reported except that he surveyed a strictly juvenile criminal population. He also concluded that most researchers and treatment practitioners are united in a belief that some connection between alcohol and violent crime or behavior exists, but the precise nature of this relationship remains "obscure" (Baldwin, 1991).

Pernanen (1991) has presented the most comprehensive analysis of alcohol and crime as he builds on two previously mentioned writings. Pernanen (1991) makes numerous assertions concerning national crime...
relating to alcohol abuse (e.g., an inference that over half of the violent crime in the United States is alcohol related). His research however fails to conclusively link the two variables and relies for the most part on a return to limited methods such as analysis of case studies (Pernanen, 1991). He also neglects to coherently define alcohol abuse and relies on instrumentation which may be too complicated for the average violent criminal (e.g., the MMPI).

Criticizing Recent Theory

Several more recent authors have criticized Pernanen in general while admitting his overall contribution to this particular genre of scientific literature. Szabo (1992) lamented Pernanen's lack of inclusion of the connection between alcohol addictive disorders and general psychopathology. This criticism is especially relevant in terms of personal insight, situational judgment, cognitive impairment, individual control and various alcohol related dementias (Szabo, 1992). The severe disturbance of personality is a clear result of alcohol abuse and probably a credible conjunctive factor in the development of (violent) criminal intent (Szabo, 1992).

Donovan (1992) credits Pernanen's important alcohol-crime research and labels it "an ingenious,
naturalistic study of the everyday relation between alcohol and aggression" (p. 142). Donovan (1992) de-emphasizes the results of Pernanen's work because of the seemingly contraindicated conclusions reached under the guise of his original anthropological assumptions (relative to behavioral predisposition).

Likewise, Marshall (1992) of the University of Iowa discounts gratuitous claims by the author Pernanen and labels his book "hard reading" as well as inappropriate for a non-anthropology classroom. He further attacks several of the book's conclusions as lacking scope foundation for the type of generalizations that Kai Pernanen made.

Wieczorek (1993) points out numerous oversights in Pernanen's study format, methodological explanation, variable conceptualizations and the omission of suicide as a violent outgrowth of alcohol abuse. The best basic conclusionary detail to be drawn from their criticism is that Pernanen uses an elementary modality for prediction of the potential relationship between alcohol and violent crime.

Additionally, Van Soest (1995) describes violence as "any act that injures the health or well-being of others" (p. 1,811). Using this definition as a base, Fraser (1995) includes a guide list of risk factors
such as poverty, the lack of economic opportunity and media violence which are correlates for violence to possibly occur. These type of issues should be included as inserted controls in the overall comparative analysis. The is, as is pointed out by Fraser, the singular most important literature deficiency in this particular area. It was manifested throughout this review as the lack of inserted controls to the overall comparative analysis of alcohol abuse and violent crime.

In that Pernanen's work is likely the best to date in this area in terms of comprehensiveness and methodological sufficiency, there is an apparent need for more comprehensive, quantitatively powerful and contemporary examination of this problem. A better combination of clinical expertise, comprehensive data collection and multivariate analysis will very likely produce a more precise linkage between the variables in question. This has only been implied thus far and not conclusively demonstrated.

Etiological and Epidemiological Perspectives

The precise etiology of alcoholism or (a diagnosis of) alcohol abuse remains unknown. Physiological and psychological addiction, genetic inheritance factors, familial patterns and endocrine system failure are all
suspected to be in causal relationship to the condition (Lender & Martin, 1983).

The traditional model of alcoholism derived primarily from Alcoholics Anonymous (AA) literature is expressed by Pattison, Sobell & Sobell (1977) in six concepts:

1. Alcoholism as a unitary phenomenon.
2. Alcoholics are different from nonalcoholics.
3. Alcoholics lack control.
4. Alcoholism is permanent.
5. Alcoholics experience irresistible physical cravings.
6. Alcoholism is a progressive disease (p. 2).

Further in their writing, Pattison et al. (1977) provide a more contemporary conceptual perspective which is in line with more modern etiological thinking. These include no single unitary alcoholism entity (thus multiple diagnostic categories in the DSM-IV). In addition, no clear dichotomy between alcoholics and non-alcoholics was noted, symptomology is variable, alcohol problems are reversible and alcohol problems are typically integrated with other life problems. (pp. 189-190).

Schuckit (1995) explains these general contributory factors in detail using scientific/experimental studies of identical twins as a focus. Other modern authors writing in journals of so called "hard science" have linked chemical anxiety reactions, (exclusive)
combinations with other illegal narcotic agents, sexual hormones and biosocial factors to the preliminary causal model in the alcohol and violence chain reaction (e.g., Blanchard, Veniegas, Elloran and Blanchard, R., 1993; Taylor & Chermack, 1993; Gomberg, 1993; Leonard & Senchak, 1993; Pihl, Peterson & Lau, 1993). Alcohol-related aggression studies from the 1990s also suggest little or no linkage (Kelly & Cherek, 1993), a predominance of causative influences in adolescence (c.f., Milgram, 1993; White, Brick & Hansel, 1993) and a new link to violent pornography (Norris & Kerr, 1993). In each case, the many varied causal factors are all directly linked to violent behavior in and of themselves (Schuckit, 1995). The etiological concerns of researchers are included as a reminder that alcohol abuse is asserted as a causative factor in violent crime and not the single "cause."

Anderson (1995) called for a "moral model" of alcohol etiology (p. 204). This approach combines the most "diverse" and plausible multivariate causal model. It includes numerous previously concluded causative possibilities (e.g., personality disorder, maladaptive development, social-learning theories, biological theories and sociocultural theories). Anderson (1995)
also reports monozygotic twin studies which produce "biological risk markers" for alcohol abuse (p. 205).

The epidemiological drinking patterns of citizens of various ages in the United States has been reported in numerous peer refereed journals and extensively in the popular media. For example, Schuckit (1995) submits that more than 50% of Americans drink more than just occasionally and the actual adult per capita annual consumption is approximately 2.46 gallons [both statistics in 1990]. Alcoholics are also 21 times more likely to have a dual-diagnosed mental disorder (Anderson, 1995). The elderly over 65 abuse alcohol at a rate of 8%, while 66% of college educated and 36% of those with a high school education use alcohol regularly (Anderson, 1995). High risk occupations include food service workers (especially bar tenders and waiters/waitresses), farmers, fishermen, factory workers, mechanics, construction workers, machine operators and laborers (Anderson, 1995, p. 207). It is relatively easy to therefore attach these demographics to needed controls and cohort construction for analyzing the relationship between violent crime and alcohol abuse.

In a very large cross-sectional nation-wide government sponsored study (N = 9,985), Hanna & Grant (1997) compared alcohol use disorders (AUD) for gender
differences and clinical implications. Demographic
distributions included: 7.6% African-American and 62%
mixed married from a total of 3,166 males and 2,004 females
(31% & 20% respectively) having AUDs. They also pointed
out the incidences of comorbidity of alcohol effects
with other diagnosed mental disorders. The most severe
alcohol abuse rates are invariably in age cohorts 20-29
and 30-38 (Cornelius, Fabrega, Maher, Jones-Barlock,
Salloum, Ulrich & Mezzich, 1997). This includes the
highest age-related block of criminal offenders, 15-24
and could be listed as a contributory factor in the
overall incidence of crime among this group (Shihadeh
& Flynn, 1996). This certainly speaks to the overall
epidemiological patterns of alcohol abuse and therefore
the large potential pool for violent crime interaction.

Reports of the comorbidity of DSM-IV diagnosed
alcohol abuse and various personality disorders are
also relevant. Morgenstern, Lamgenburcher, Labouvic &
Miller (1997) present empirical findings as to antisocial
personality disorder (DSM-IV, 301.7) and alcohol abuse.
In their study (N = 366), about 25% of the males and
9.1% of the females (22.7% overall) registered in both
diagnostic categories (p < .01). These results were
derived as statistically significant using cross-products
odds ratios and the chi-square analysis. Antisocial
personality disorder is often synonymous with those individuals engaged in repeated criminal and especially violent criminal acts (see DSM-IV for details).

Dinwiddle (1997) also pointed out that the likelihood of the coexistence of other psychoactive substance abuse disorders with alcoholism is extraordinarily high ($N = 5,520$). For example, the potential for Cannabis use in 20 times more if alcohol is also used. Susceptibility to intravenous drug use is also ten time higher if alcohol is used (Dinwiddle, 1997). These are general indicators of the tragic proportions of the nation's alcohol problem and the potential violence connected with numerous alcohol abusers (Lender & Martin, 1987; Schuckit, 1995).

**Instrumentation Review**

In accordance with the primary objective of this research, to quantitatively link alcohol abuse and violent crime, a standard formatted survey instrument will be used to determine alcohol abuse (DSM-IV, 305.00). The Michigan Alcoholism Screening Test (MAST) will be used as the primary test instrument. It is a nominal scaled (yes/no), easily recognizable, complete and scored screening test with proven reliability and validity (Watson, 1989). The original MAST was authored by Melvin Selzer in 1971 (updated in 1985).
Validity of the MAST was assessed by Selzer (1971), using independent corroborating evidence of alcohol abuse with the original test subjects for comparison purposes (e.g., medical and mental health cases and several other reliable record sources). A validation score was then determined for each subject from the drinking related data obtained from medical, social history, driver and criminal records (Selzer, 1971). A non-drinking control group plus four identified heavy alcohol using population groups (e.g., those arrested for DUI) were used to compare for validity of measurement (Selzer, 1971). This experiment and other related measures established construct and content (face) validity which has been accepted by the treatment and research community for many years.

Original test reliability was established using the inter-rater method with > .80 correlation. Extensive time stability test and retest experiments were also conducted using psychiatric hospital intake patients. A ten item "Brief MAST" was constructed and correlated by form A/B reliability in 1972 by Porkorny, Miller & Kaplan. They also confirmed test-to-test reliability using the Pearson's r for item by item correlation. According to the Buros Mental Measurements Yearbook (1998), the Brief MAST is in widespread usage today.
by both clinicians and researchers for the diagnosis of alcohol abuse.

The ten question Brief MAST was used to facilitate working with a semi-literate (and occasionally illiterate) population. The investigator read and reread each question, as well as further explained and assisted inmates as was needed. The information provided by the MAST is sufficient to provide a licensed clinician enough criteria to make an alcohol abuse diagnosis in accordance with the parameters given by the DSM-IV (DSM-IV, pp. 183-184).

Up-To-Date Alcohol-Crime Research

An exhaustive review of the most current research relative to alcohol and crime was conducted in order to establish a literature foundation (to build this study's design upon). The total amount of broad alcohol-crime related research in existence now is enormous (on the order of 10,000 entries in a complete data base search which includes key words such as crime, alcohol, corrections, violence or criminal justice etc. in various combinations and sequences). Additional present day literature (using 1992 as a delimiting date) is limited, especially relative to the specific topic of this research. In addition to a pure computerized data base search, major criminological and alcohol study journals...
and prominent justice organization internet sites were searched for non-dated material (e.g., Criminology, Crime & Delinquency and the Journal of Alcohol Studies and on-line sites sponsored by the National Institutes of Justice). Large numbers of research reports which studied alcohol and crime in some capacity were noted. Six coincident trends were identified in the current literature:

1. The general linkage between alcohol and crime (not necessarily alcohol and violent crime although these are often, but not always part of the analysis).
2. Alcohol and violence are accepted as at least nominally linked correlates. All further research efforts should therefore concentrate on treatment and prevention of alcohol use/abuse.
3. Alcohol related violence as manifested by spousal abuse.
4. Alcohol abuse and violence as is expressed in driving while intoxicated or driving under the influence (DWI/DUI) statistics.
5. The growing youthful offender alcohol abuse and resulting violence problem.

The research trends above are listed in descending order of importance, based strictly on the volume of literature located in each area. Numbers one, three and five are also trend lines which can be traced farther back in the alcohol-crime literature (than 1992 as above).

Trends in Recent Literature

Six basic trends emerged from the review of the most current literature. They can also be identified
as four major (numbers one through four) and two lesser (numbers five and six) emphases in terms of the volume of research in each category. Three of the trends (numbers two, four & six) also mark a significant departure from the historical material presented earlier in this chapter.¹

Trend One

The first identified trend reference to alcohol and violence crime (directly or indirectly) is reflected in a large amount of criminological and substance abuse writings since 1992. In this type of research, alcohol and crime are expressed as in a primary (causative) relationship, but violence and violent crime or non-violent crime are not necessarily included in the analytical mix (i.e., these two variables are presented and discussed as an overall component of the substance abuse [including drug] and crime problem).

As an example, Lanza-Kaduce, Bishop & Winner (1997) investigated the role that alcohol consumption plays in "social-psychological processes" such as morality (as defined by the substance abuser, p. 222). Alcohol's role in various risk calculations is also discussed. They found that alcohol reduced both moral inhibitions that mitigate against criminal violence and "relaxed" crime/risk perceptions (p. 222).² Both are areas of
major criminological theory related to crime (it should be noted that alcohol consumption amounts were unspecified).

Costanza (1998) also reported (in a recent doctoral dissertation) the effect of the availability of beverage alcohol on crime rates in neighborhood block groups. This analysis includes all types of crime, not just those which are violent, as measured against the number of places of ready availability, such as walk-in package liquor or convenience stores. He consistently found that in high crime areas of East Baton Rouge Parish, crime rates (the number of crimes per 100,000 citizens) were significantly higher where greater or easier alcohol access occurs (a parish equals a county in Louisiana; East Baton Rouge is an urban parish in which the state capital is located)." 

Trend Two

This literature trend generally accepts alcohol and crime as causal chain correlates, but does not limit the analytical framework in terms of alcohol and violence or violent crime. The primary emphasis, given the premise above is treatment of chronic abusers (especially those who could become violent) and prevention matters (such as education programs). The acceptance of alcohol and crime (and nominally alcohol and violence) as correlates
is primarily based on biological and biochemistry experiments. In this vain, Collins & Messerschmidt (1993) presented epidemiological statistics to support this notion which is generally repetitive (versus those presented earlier in the chapter's epidemiological literature review).

The Center for Substance Abuse Prevention (1998) also briefly presents descriptive statistics such as DWI/DUI arrests etc. to conclude that over one-third of all arrests in this country are alcohol or alcohol and drug related. Their conclusions also include reasons for this assumed relationship (e.g., to achieve inebriation in order to blunt their life's various traumas). After the authors explain what they characterize as a complex causal "interplay" between alcohol and other drugs (AOD) and crime, prevention and treatment suggestions are then outlined in great detail (p. 2).

Finally, Wren (1998) from the National Center for Policy Analysis links the explosion of inmate populations in America with substance abuse problems. This includes nearly 1.4 million drug and alcohol convictions. Alcohol abuse is not given prominence in their analysis which concentrates primarily on illegal narcotics.
Trend Three

Mignon & Holmes (1995) studied 24 police departments in Massachusetts in order to evaluate mandatory arrest laws relative to spousal abuse (N = 861, ultimately analyzed using the chi-square with an alpha level of 0.05). One of the key factors in the need for such laws to control and reduce domestic violence was alcohol use. Although they found significant variation across the state, their overall analysis concluded approximately 37% of all domestic violence cases resulting in arrest involved alcohol (with an additional 11% where drugs were also used along with alcohol). They also linked alcohol-related disorderly conduct and other such criminal history trends as predictors of involvement in (future) spousal abuse (overall, only about 2% of the cases showed these type of correlations).6

Feder (1998) also included alcohol use as an individual variable in the likelihood of spousal assaults. His correlation score between alcohol and domestic assaults was nearly .9 (again unspecified drugs were also included in their analysis; N = 155 using the chi-square analysis and odds ratio comparisons). These articles mentioned under this trend heading provide some substance for the initial conceptualization.
established earlier in this chapter that alcohol and violence are general correlates. 7

Trend Four

This trend reflects a large amount of published literature relative to perhaps the most obvious alcohol-crime-violence connection, that is DWI and DUI. Many of these authors such as Grasmick, Bursik & Arnesklev (1993) argue that DWI/DUI arrests are at the center of alcohol-related violence. This is especially true in terms of the aftermath of thousands of DWI/DUI related casualties (in what can be conclusively argued as a violent death). Although this is not the direct focus of this research, it is included nevertheless due to the voluminous amount of published literature and research dollars which are attracted to the issue.

Most of the focus in this area is linked to trend two in terms of prevention of what Applegate, Collen, Barton, Richards, Lanza-Kaduce & Link (1995) call "killer drunks" (p. 171). Other focuses included various deterrence measures, treatment issues and the real scope of this problem (which may be hidden by researching arrest records and alcohol-related traffic deaths only, e.g., see Piquero & Paternoster, 1998). 8 Although the number of fatalities attributable to DUI/DWI have fallen in recent years, this remains a high research priority.
Trend Five

The identified research interest in trend five is related to the explosion in juvenile criminal activity in America. Some researchers have attributed this increase, at least in large part to the uptake in population in the most vulnerable to crime commission age cohort years 17-25 (e.g., Shihadeh & Flynn, 1996). McMurran & Hollin (1993) add alcohol to this analysis as a combustible agent which exacerbates this population's trend towards crime in general and violence in particular. It is also related to disinhibition or the lack of inhibition theory which plays a role in enabling young people to commit crimes in which they might not otherwise be willing to be involved (i.e., under the influence of alcohol with the resulting accompanying chemical changes which take place in the brain). Other youth-related issues concerning alcohol use increasing the propensity for crime include stealing alcoholic beverages or shoplifting to obtain liquor, drinking just prior to a criminal act to obtain courage, alcohol as an impairment in decision making and the coincidence of the heaviest alcohol usage/consumption and crime commission by the 17-25 age group (e.g., see McMurran & Hollin, 1993 etc.).
Trend Six

The final literature trend found in the published research is that of international interest in alcohol problems (both by American and foreign authors published primarily in journals, books etc. available in the United States and internationally). The World Health Organization (WHO), a subsidiary of the United Nations (UN) which operates out of Geneva, Switzerland has been concerned with alcohol abuse since the middle of the 20th century (the WHO is a part of the UN charter). They periodically published an alcohol and crime fact sheet which surveys various national problems. These statistics include data which support the contention of linkage between alcohol and crime abroad. Their charter document states "all people have the right to a family, community and working life protected from accidents, violence and other negative consequences of alcohol consumption" (p. 2, emphasis is mine).

Their synopsis studies provide information on the scale of each UN member nation's alcohol/crime problem. Arrest reports relating to alcohol and medical association categorization of the morbidity associated with drinking alcohol are also provided.

Individual nations such as the United Kingdom also publish extensive information on alcohol-related
problems within their borders (much like the U.S. Department of Justice does). The 1995 All Party Group on Alcohol Misuse concluded a "strong association" between alcohol and crime (p. 1).

The negative statistics presented are in many cases similar to those published in the United States. An extensive amount of very detailed information from these type of sources is available and a potential subject for the future comparisons.

Major Contemporary Studies

The above explained six trends are related to the research of this study essentially only in a tangential way. The following major recent research reports are more directly related and will be used as a backdrop to compare to the final results of this study's findings.

Roth (1994) published an extensive study of psychoactive substance abuse (including alcohol) as it relates to violence. This National Institutes of Justice/National Criminal Justice Clearing House sponsored paper included in its key findings that alcohol and violence (not necessarily violent crime) "are linked through pharmacological effects on behavior, through expectations that heavy drinking and violence go together in certain settings, and through patterns of binge
drinking and fighting that sometimes develop in adolescence" (p. 1). Other findings included that what the author labeled "chronic drinkers" are more likely than non-drinkers to have a history of "violent behavior" (p. 1; however, does chronic drinker equal DSM-IV alcohol abuse and does violent behavior include, exclude or is it equivalent to violent criminal activity?). In addition Roth (1991) agrees with the National Institutes of Justice (NIJ) contention of the last 30 or more years that beverage alcohol drinking just prior to a criminal event by the perpetrator or the victim was present in nearly 50% of all cases involving an arrest.13 The NIJ Drug Forecasting Program, which has 24 sites nationwide determined that the majority of males and females arrested for a violent crime (unspecified as to which crimes this includes) had been drinking (an unknown quantity) within the last three days (Roth, 1994). This is partially accounted for by Roth in the conclusion that alcohol is the only psychoactive substance which can uniformly increase aggressive behavioral tendencies.14 His findings are tempered by other factors (in terms of the strength of the alcohol-aggression relationship) such as when and where the drinking occurs and particular customs relative to alcohol.
Alcohol abuse also seems to relate to both abuse of other psychoactive substances and antisocial personality disorder which in turn often creates a person who is extremely susceptible to involvement in violence. It is concluded with particular certainty (i.e., verified by animal laboratory biochemical testing) that individuals who already have aggressive tendencies are likely to have those propensities exacerbated by alcohol use (Roth, 1994).

Alcohol use is also associated with sexual violence through comparison by Roth of alcoholic histories and high levels of testosterone in the blood. The above described contention is also born out in animal experiments where higher testosterone levels combined with introduced alcohol intake increases both the frequency and intensity of episodic aggression. Roth (1994) also points out an association between acquaintance or "date rape" and drinking related to sexual expectations produced by mood alteration which can eventually lead to forcible or surreptitious sexual advances. Roth does suggest that comparisons to non-violent sex offenders are needed to strengthen the causal chain between alcohol and sexual assaults.

The other aspects of the situational context of alcohol consumption (when, where etc.) may also
(according to Roth) be linked to the presence or absence of violence (e.g., there are few bars, nightclubs or other alcohol consumption locations with a reputation for violence or a significant potential thereof). The majority of the remainder of Roth's report (if not the overall majority of his writing) discussed illegal drugs and violence as well as drug prevention strategies. His overall conclusion does suggest most importantly that further research in this area is necessary. Roth submits that "too few of the links between violence and psychoactive substances have been established with enough certainty to advocate for a comprehensive national policy for preventing violence related to those substances" (p. 13).15

The second major study published by the Bureau of Justice Statistics (BJS) in 1995 obtained an extensive amount of data from their 1991 survey of state prison inmates. Their large survey studied 1,239 institutions which housed 711,643 inmates at that time. Ethnicity was broken down as 35% white (non-Hispanic), 46% black, 17% Hispanic and 2% other racial classifications. The age ranges were as follows: < 18 (1%), 18-24 (21%), 25-34 (46%), 35-44 (23%), 45-54 (7%), 55-64 (2%) & > 64 (1%). Eighteen percent were married, 19% were divorced, 2% widowed, 6% separated & 55% never married.
Educational level of attainment included 19% < 9th grade, 46% some high school, 22% high school graduate & 12% some college or more. Sixty-seven percent were employed prior to incarceration (55% full-time), leaving about 33% unemployed (with approximately 16% each looking or not looking for work). Income range data mentioned includes $0 (3%), < $3,000 (19%), $3-4,999 (10%), $5-9,999 (21%), $10-14,999 (17%), $15-24,999 (16%) & > $24,999 (15%). These figures are given here in that the provide methodological impetus for this study's individual locally devised survey items and a basis for comparison of national data statistical trends to the state of Louisiana and vice-versa.

The percentile breakdown for violent versus non-violent offenses was 32 & 68% respectively (29% property, 33% drug related & 6% public order for the non-violent category). The individual offenses under the auspices of violent crimes (in the four Uniform Crime Reports categories) included 12% homicide (murder of manslaughter), 15% robbery, 8% assault & 8% sexual assault (various rape related crimes).

Nationwide sentencing for all types of crime also varied widely with life terms having 9%, > 120 months (34%), 61-120 months (23%), 25-60 months (24%) & 1-24 months (10%). The median sentence for violent crimes
across the country was 200 months. About 1 in 23 inmates or approximately 4% were not citizens of the United States, with the majority of these (47%) being from Mexico. In every offense category, racial and gender differences in both criminal acts and precipitating events were described in detail. For example, 50% of female inmates killed their victim, while only 28% of males did so. Conversely 28% of all male offenders sexually assaulted their victim, while only 5% of females did. These gender and racial breakdowns may be important to the final analysis presented in this study and suggest the need for the insertion of control variables into that analysis which control for race, gender and other factors.

According to this study, 36% of white and 17% of black inmates reported parental "alcohol abuse" (p. 14). Fifty-percent of inmates reported being "under the influence of alcohol or drugs" at the time of their committing offense (as well as 30% of their victims, p. 26). This includes 52% for homicide, 42% for sexual assault, 52% for robbery & 50% for aggravated assault assailants (with the victim percentages being 46, 17, 19 & 42 respectively, p. 26). The study's concentration
on drugs (and not alcohol) is evident by the volume of material and data relative to each. The alcohol influence only numbers are much lower: all offenses (18%), violent offenses (21%), property crimes (18%), drug offenses (8%) & public order crimes such as DWI/DUI (31%). This represents a general decline from 54% under the influence in 1986, the last time this large study was conducted.

A key finding was that "the pattern of drinking" did not differ widely among the major offense type groups (p. 36). For example, the amount of alcohol consumed in ounces before the offense occurred was similar across all crime categories: violents (8.1), property (9.4), drug (6.4) & public order (7.8). Nine ounces of alcohol ("ethanol") is equal to approximately three six-packs of ordinary beer or two quarts of wine (p. 37). Approximately 50% of the inmates under the influence (in some capacity) at the time of their commitment offense had consumed alcohol within six hours of that occurrence. Daily drinking was not as common as would be suspected (29% males, 19% females, 34% white, 23% black & 25% Hispanic, p. 37).

These statistics provide an important basis for comparison and justifications for the methodology of this research in terms of questionnaire content/record
search and which controls should be inserted into the analysis. Their study method also used personal interviews to generate summary descriptive statistics. Their sampling method was also random in which 277 actual prisons were surveyed (from a possible universe of 1,239 mentioned earlier). General prison demographics were derived by the 1990 census enumeration of all prisons. Accuracy of their extrapolations and extensive definitional appendixes are also provided (including their raw number counts). No effort was made to undertake more complex multivariate statistical analyses in order to determine a more precise causal linkage between any of the above mentioned variables. This BJS study is however useful as a foundational basis for expanded analysis of their provided data.

The final and most recent study of criminological data was published in 1998 (also by) the NIJ and their Bureau of Justice Statistics (BJS). It is entitled Alcohol and Crime. This publication was revised and updated on April 4, 1998, but is does (unfortunately) reflect survey data sources from throughout the 1990s. The most recent statistics they use are from 1996. To emphasize the seriousness of this issue, the report's cover sheet submits that almost 2 million offenders or nearly 36% of the 1996 total inmate population were
drinking alcohol at the time of their commitment offense. The study's primary author was Lawrence Greenfield, Deputy Director, Bureau of Justice Statistics. There were numerous contributing writers who are listed in the credits. Two of the primary source documents used in compiling this data were the (previously referred to) Uniform Crime Reports (UCR) and the National Crime Victimization Survey (NCVS). These are the primary sources of information relative to criminal activity in the United States. The BJS also used traffic death information from the National Highway Traffic Safety Administration.

The report presents general statistical linkage between alcohol and crime including "3 million violent crimes each year in which the victims perceived the [convicted] offender to have been drinking" (p. v). The majority (2/3) of these occurrences mentioned here were involved in simple assaults, not a UCR listed category for violent crime. In addition, 2/3 of those assaulted by an intimate acquaintance such as a current or former spouse or boyfriend/girlfriend reported that "alcohol had been a factor" (p. v). The majority of the spousal assaults (3/4) also involved the perpetrator drinking. What exactly constitutes "a factor" above is not specified other than by implication (as playing
some causative role in the violent situation; i.e., no quantity or other situational context information is included). Seven out of ten of these incidents occurred in a primary residence after 10:59 p.m. with only about 20% involving a weapon.

The majority of this report deals with the extensive DUI/DWI problem in the United States. They equate the 17,126 alcohol-related traffic deaths as a major indicator of the violence that can be linked to alcohol use/abuse. This is reflective of literature trend four mentioned earlier. A large volume of material on alcohol and accidents is presented.

The report also estimates blood alcohol content (BAC) for violent offenders at .28, more than twice the legal limits in most states (with the overall BAC rate for all types of crime at .27, .30 for property offenses and public order offenses including DUI only .23). This is based on self-reports from state prisoners and seems to indicate both the usefulness of this type of information and a propensity for violent criminals to drink more heavily at the time of the commission act (reinforcing various disinhibition theory notions). Other epidemiological statistics relative to alcohol consumption, alcohol and health related death rates
and usage patterns are similar to those already presented earlier in this chapter.

About one in four of the 11.1 million victims of violence in the United States in 1996 were "sure" that their assailant had been using alcohol before they committed the crime in question (p. 3). This assuredness (of assailant usage) drops off for alcohol and drugs to about 5% and for alcohol or drugs less than 1%. This includes about 30% of the rape/sexual assault offenders (using alcohol only), 7% drugs and alcohol and 2% drugs or alcohol being used coincident to the crime's commission. The alcohol only percentages for robbery, aggravated assault and simple assault were 10, 21 and 21% respectively. Again this material relies heavily on self-reports, this time from victims. Its reliability without confirmatory sourcing may therefore be suspect.

The report characterizes (referring to literature trend number three) alcohol as a part of "about 40% of the domestic violence disputes reported" (p. 6). This includes 34% of current or former spouses or boyfriends/girlfriends, 19% of parent versus children violence, 16% of the casual or well-known acquaintance violence and 20% of the stranger violence (p. 6). The general trend downward of drug and/or alcohol combinations also continues with this data grouping.
(6/1%, 6/1%, 5/<1% & 4/2% respectively each as above, p. 6). Medical expenses for victims were also reported in this block of data. Nearly $400 million in direct losses were suffered by one in five victims of violence who blamed this occurrence on assailant alcohol use (p. 6).

Alcohol was also involved in approximately 41% of college on-campus violence. The number decreases to 37% for students living off-campus. These trends are in line with age cohort data that was reported. Thirty-six percent of the violent offenders who used alcohol at the time of the crime's commission were between 15 and 29 (nearly 38% between 30-39 for a total of 76% between 15 and 39, p. 9). These figures indicate a stronger alcohol-related tendency for violence among younger people. Most of this type of violence also occurs in a home, late at night.

This very extensive report goes on to explain probationers who drink and reoffend (or not) and how many state inmates have been in one or more substance abuse treatment facilities. The BJS also publishes several other lengthy documents which provide very similar information. They are however presented in a more textual and less graphically oriented manner (in terms of style only). Among these are: Alcohol and Crime:
An Analysis of the National Data on Prevention of Alcohol Involvement in Crime and Alcohol Abuse and Crime, Parts I - V. The analytical presentation is not dissimilar to information presented by Pernanen (1991) or Wolfgang (1989) which were explained in detail earlier in this chapter.\textsuperscript{19}

The theoretical orientation of the BJS publication is not completely clear, although the situational context of drinking (e.g., when, where, with whom etc.) and the role of disinhibition theory are a part of the objective analysis.\textsuperscript{20} It is clear from this research that alcohol plays a general role in criminal activity and is a specific component of the incidence of violent crime. It is not clear from this data and its explanations what the magnitude of this role is or how large a factor alcohol is in violent crime.

The authors also differentiate violence in a very different way than does this report (e.g., including the huge number of simple assaults and DWI/DUI offenses which skew all other criminal occurrence statistics and which are not a part of the UCR's definition of violent crime). The extent of alcohol usage by volume is not linked in a concrete way with violent crime, nor is the effect of the amount of alcohol on the incidence of violent crime explained. Although all three
of these reports offer much useful data for further study, comparison and premise building, it leaves many unanswered questions which this research will attempt to answer.

Literature Overview and Summary

Literature was reviewed herein that links alcohol use and/or abuse to a form of criminal or deviant behavior or other abnormal activity in general and to violence and/or violent crime in particular. The examined research data was concentrated by emphasis on information derived from the last five years. This was done in order to account for all the current research and to develop literature sources which can in turn be used to enact some measure of problem reformulation and methodological refinement. This study attempts to address the gaps noted in the major conceptual published literature on alcohol and violent crime.

A preliminary analysis revealed six major research trends (see page 47). In addition to these trends, specific previous research which was reviewed will be built upon by this project. For example Myers (1984) used a very small sample of inmates, did not validate his self-reported alcohol consumption and other demographic data and conducted his research in a foreign nation (Scotland). This research attempts to correct
all of these deficiencies.\textsuperscript{22} Pernanen (1991) used a large sample, but his analyses were of qualitative research (case studies) and secondary data (Minnesota Multiphasic Personality Inventory results). The generalizability and predictive value of these methods are limited. This research quantitatively analyzes primary data which has been verified.

Both Roth (1994) and the two NIJ BJS studies (1995 & 1998) also used large scale secondary survey data samples. Their data is nationwide in its scope, but the reliability of their census and self-reported data is suspect as a predictor. Their use of extrapolations relative to BAC without inferential statistical measures to produce estimates are also difficult to verify or substantiate as factual. In addition, these research efforts fail to always separate alcohol from drugs in each analytical frame, thus confusing or convoluting the genuine effect that alcohol itself (and alone) has on violent crime (this is especially true of Roth). There is also some level of confusion in terms of clarity of definitions of alcohol abuse (versus just use) and violence (versus violent crime). Failure to separate simple assaults, such as purse snatching from other significantly more serious violent crimes is an example of this type of definitional problem (as is the inclusion
of DWI/DUI statistics as alcohol related violence). In addition, these research efforts fail to always separate alcohol from drugs in each analytical frame, thus confusing or convoluting the genuine effect that alcohol itself (and alone) has on violent crime (this is especially true of Roth). There is also some level of confusion in terms of clarity of definitions of alcohol abuse (versus just use) and violence (versus violent crime). In each of those cases an argument can be made for inclusion or exclusion, but the numbers for simple assaults and/or DWI/DUI are so large that they markedly statistically skew any crime rate report in which they are included). Additionally many of the sub-analyses provided by the above compare alcohol to crime in general and do not emphasize or separate violent offenses.

This research attempts to specify the variables more clearly and define them with substantially more clarity. The analytical procedures performed with large volumes of data generated by the research reports mentioned above (especially the nationwide surveys of state prisons) included only percentages and other descriptive statistics. Mean occurrence scores and other measures of central tendency and dispersion were not included nor was there an attempt to use inferential
statistical procedures (other than in sampling measures) to extend the predictive value the their data further (e.g., a regression of alcohol abuse rates on violent crime rates using various demographic control variables such as race, education level etc.). This research includes these type of more sophisticated and statistically powerful analyses, while keeping the large sample size and broad range of inquiry used by the governmental justice organization research (see method for additional and more specific details).

This research also builds upon the two previously presented connecting theories relative to alcohol abuse and violent crime: the influence of the situational context of drinking and disinhibition theory (see Rada, 1975 and Ripa, 1985, Roth, 1994 etc.) Using the situational context theoretical conceptualization as a premise, this research explores factors in the incidence and prevalence of violent crime such as where the drinking occurs prior to the commitment offense, the duration of drinking, the quantity consumed, precisely who (demographically speaking) is doing the pre-criminal act drinking and timing (e.g., how long before and other chronologically associated patterns).

The role that habitual alcohol usage (as previously described in clinical, DSM-IV terms) plays in violent
crime will be used to support or refute the disinhibition theory of criminal violence propensity. Roth (1994) actually suggested that comparisons with non-violent sexual offenders in terms of alcohol use patterns were needed in order to determine the true role that alcohol plays in violent sexual assaults (these questions can be easily extrapolated to compare all violent and non-violent offense in the same manner). Roth also fails to indicate the clinical connection between "chronic drinking" and the DSM-IV diagnostic criteria for alcohol abuse (or any other alcohol-related mental health disorder). Neither Roth nor the NIJ studies provide specific violent crime definitional breakdowns. The quote submitted earlier spells out the problem with these types of omissions very clearly: "too few of the links between violence and psychoactive substances have been established with enough certainty to advocate for a comprehensive national policy for preventing violence related to those substances" (Roth, 1994, p. 13). This research should then therefore add to the knowledge base in this area.

As this study attempts to address the gap in the major conceptual literature on alcohol and violent crime, the first step in filling that gap is to attempt to quantitatively determine the relationship between alcohol
abuse and inmates convicted of violent crimes. In concert with the unanswered methodological questions (or deficiencies in method process) listed above, several other fine-tuned lines of inquiry were pursued in relation to alcohol abuse and violent crime. This research will address the alcohol abuse-violence linkage continuum by comparing a sample of violent and nonviolent convicted felons who are currently incarcerated. Examining these coexisting phenomenon within the theoretical frame work of the situational context of drinking and violent crime and disinhibition theory will help to further explain why excessive drinking often leads to violence (see Greenburg, 1981; Roman, 1981; Collins 1981 & 1983; Weiner & Wolfgang, 1982).

Other more specific questions are raised and go unanswered by the literature to date. For example will the results from secondary survey data confirm or refute the findings associated with a primary data collection of interviews etc.? Will the national data trends compare favorably with this study's information derived from a single state's inmates and vice-versa? Will the percentile and other descriptive/inferential statistical relationships found by Myers (1984), Forest & Gordon (1990), Pernanen (1991), Roth (1994) and the BJS studies (1995 & 1998) hold when compared with the results from
this research? Will the demographic profiles of Louisiana inmates correlate to states across the country and the national or international trends? If they do so, then the external validity of this research will automatically be strengthened. Using the aforementioned theoretical framework along with the insertion of control variables will help in determining the real magnitude relationship between alcohol abuse and violent crime. This is the ultimate objective of this research.

End Notes

1. Some of the difference in trends are accounted for by the passage of time, societal values changes and more modern inventions. For example, the proliferation and prevalence of automobiles in the United States or the mostly recent emphasis on studying domestic violence or more sophisticated research methods which enable the establishment of correlation between a given set of independent and dependent variables more easily. The ease of cross-border and international communication and research cooperation and exchange facilitates increased availability of foreign research. The overall increase in the number of children in the most vulnerable 13-18 age cohort increases the attention on a growing juvenile crime problem and its cause such as substance abuse. Hundreds of dated reports (as defined by this research) also address these trends either directly or in an ancillary way. Where possible, some of the most recent are noted in the text on research trends and explained in the chapter's end notes to follow.

2. The National clearing House for Alcohol and Drug Abuse Information presents a more directly established link between alcohol (as a drug, but, again in what quantities?) and violence. They quote the Seventh Special Report to the U.S. Congress on Alcohol and Health (United States Secretary of Health and Human Services, 1990) "In both animal and human studies, alcohol, more than any other drug has been linked with a high incidence of violence and aggression." Their accompanying statistics (although again dated) are sobering. Alcohol is a "key factor" in 'up to 68% of the manslaughters,
62% of the assaults, 54% of the murders/attempted murders, 48% of the robberies and 44% of the burglaries. From inmates they describe about 42% who are convicted of rape as under the influence of alcohol (or alcohol and other drugs, known as "AOD") at the time of their offense. Similarly 64% of the child abuse and neglect cases reported in New York City in 1987 were linked with "parental AOD abuse." Their statistics as noted are however even older and derived primarily from the United States Department of Health and Human Services (National Institute on Alcohol Abuse, Alcoholism, Alcohol & Health, Sixth Special Report to Congress on Alcohol and Health, 1987). This lengthy series of reports goes on to provide numerous other statistics which at least nominally linked alcohol to violence and violent behavior. It should also be noted that the inclusive combinations with drugs shown as AOD distort the results of this research in so far as determining the effect of alcohol alone in these areas (all quotes are from p. 1, the introduction to the document's findings).

3. This theory was pre-tested by Gelberg, Linn & Leake (1988) as a part of an overall analysis of mental health problems, alcohol and drug use and homelessness versus various criminal history patterns. They also found high correlation scores between alcohol use frequency/problems and felony convictions in a sample of 529 homeless adults in Los Angeles County (California). They used a chi-square analysis procedure for non-categoric data. Homelessness was associated with alcohol availability in the poorer neighborhood areas frequently by the compulsive users of alcohol.

4. A survey of prison inmates conducted in 1991 by the United States Department of Justice (Survey of State Prison Inmates, Bureau of Justice Statistics, Office of Justice Programs) furnished supporting statistics relative to the sub-contextual problems of comorbidity with other drugs (in formerly homeless convicted felons) and other drinking pattern issues. The survey also found regular and common drinking among 34% of white, 25% of black, 25% of Hispanic, 29% of male and 19% of female inmates. These numbers are slightly smaller than those reported in more recent state inmate surveys.

5. See for example Lang, Goeckner, Adessor & Marlatt (1975), Journal of Abnormal Psychology, Vol. 184, No. 5, 508-518. Their objective was to "determine the effects of alcohol on aggressive behavior in male social drinkers" (p. 508). Their sample was 96. In their
results they claim that there is "little doubt about
the existence of a strong relationship between alcohol
consumption and aggressive or destructive behavior"
(p. 508). This finding is of course relative to their
population and derivative sample parameters/statistics
only and their is little evident generalizability to
a larger population group or universe of other ordinary
citizens. They cite as supporting evidence many reports
previously discussed in this research in the historical
literature review (e.g., Shupe, 1954 & Wolfgang, 1958
etc.) Pernanen (1976) also reported similar conclusions
(discussed on pp. 29-31 of this chapter).

6. In a special issue of Crime & Delinquency
(Volume 41, Number 4, October, 1995) devoted to the
study of violence against women, several other authors
found and developed similar conclusions regarding alcohol
abuse's effect on the incidence, prevalence and intensity
of domestic violence (e.g., Stalans & Lurgio, Finn &
Stalans or Block & Christakos, all 1995).

& the United States DOJ BJS (1991) all surveyed alcohol's
involvement in rape crimes. The particular focus was
on what is labeled "acquaintance rape" or that which
occurs in association with an overall pattern of domestic
at a sample of college students (N = 64 men & 68 women,
all age 21 and older) drawing on their perceptions as
to the relationship between these variables (alcohol,
vioence and rape). Rada's research concludes that 25%
of the assailants as "alcoholic" in these cases (n =
100, a small sample). The BJS survey of women in prison
provides some correlation between alcohol abuse by a
female assailant in various cases of domestic violence
up to and including the murder of a spouse. This
involvement appears to be more incidental and a part
of a long series of factors rather than causal.

8. As an example of the missing scope
substantiation, approximately 93,300 positive or refused
breath tests (for alcohol) were recorded and research
for one year (1994) in the United Kingdom (this was
about 14% of the total 678,500 total tests administered
to British drivers stopped by authorities under suspicion
of DWI/DUI). These percentages compared favorably with
the numbers surrounding the average of nearly 2.1 million
DWI/DUI arrests in the United States each year. In the
United States, refusal to take a breath test is treated
as positive or over the legal limit (in most states).
This is an area for future comparison (with the results

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of this study; i.e., the incidence of violent crime affected by alcohol compared to DWI/DUI occurrence rates). See also Alcohol & Crime: An Analysis of National Data on the Prevalence of Alcohol Involvement in Crime, United States DOJ, BJS, Office of Justice Programs (1994). U.S. Government printing Office (published yearly).

9. Precisely what role drinking plays in disinhibition is a subject of much speculation, debate and research bound argument. This theoretical viewpoint is also related to biological correlate research mentioned earlier (e.g., in #2 above). See McMurray & Hollins, 1993 for further details.

10. See also Drink, Delinquency & Prison (1987) by the Prison Reform Trust. Also see Breaking Into the System (1995), a report by Webster & Chappell of the Alcohol Concern Group which discusses both prison based work (primarily in relation to treatment) with youthful alcohol users and work with police, probation and parole agencies in the interdiction of youth alcohol problems.

11. Parties here refers to political parties in Britain (e.g., the Labor, Conservative and Liberal Democratic parties). Private researchers from the United Kingdom such as Myers (1984) have also written in general about the commonwealth's alcohol problem and specifically about alcohol and crime/violence (in the case of Myers, his research was done in Scottish prisons, see p. 34 this chapter for further explanation).

12. Some of Britain's relevant available statistics include alcohol as a factor in 60-70% of homicides, 75% of stabbings, 70% of beatings and 50% of fights and domestic assaults (British Medical Association, 1995, cited in the All Party Group of Members of Parliament Alcohol Misuse Inquiry Report, p. 2). What extent alcohol is a "factor" in these matters is not provided. In addition, that same report claimed 30% of the probationers and 58% of the prisoners in Britain have "severe alcohol problems" (p. 2 above). Their extensive report cites dozens of other statistical correlations between the incidence of crime and alcohol usage (even with wording used like "severe," no quantification detail was provided as to how much alcohol was involved at what frequency or what timing was coincidental to the research questions). Finnish researchers found alcohol-related aggressive tendencies strongest in those with hypoglycemia and low levels of the neurotransmitter chemical serotonin, a known
causal agent in abnormal brain wave patterns and susceptibility to stress, anxiety, depression and other general mood disturbances (see Roth, 1994, p. 6).

13. However as a counter-example and counter-cyclic trend, Lieberman & Haran (1985) studied 500 bank robbers and found that only about 12.5% were "alcoholic" and another 48% were "moderate drinkers" (actual N = 423 due to 77 subjects which the extent of their alcohol use curiously could not be determined; p. 1, abstract). Budd (1982) studied 100 Los Angeles County (California) homicide victims from the year 1980 and found 61% with a post-mortem BAC at levels of 0.01% or more. His conclusion that "alcohol use is one factor that increases the chances of a person becoming a homicide victim" squares with the NIJ data based contentions mentioned, but it is not demonstrated conclusively (p. 105).

14. For example Ripa et al (1985) studied 19 assaultive and 19 nonassaultive "offenders" and found that the "assaultive subjects" reported greater "subjective responses [read as loss of control] and greater affective change" as a result of drinking alcohol (p. 1, abstract). They also found increased or greater alcohol consumption prior to the commission of the criminal assault (as above).

15. Other studies which are dated, but back up this contention include Grigsby (1963); Habberman & Badenn (1974); Herjanic & Myer (1977); Lang, Coeckner, Addesso & Marlatt (1975); Lindelius & Salum (1973); and Maule & Cooper (1966). These studies are presented in alphabetical, not chronological order (see references). The subject matters presented by the above listed articles are wide ranging, but generally directly related to this research (e.g., alcohol and violent death/homicide, alcohol effects on aggression and alcohol versus criminality).

16. Other countries represented included Cuba (10%), the Dominican republic (9%), Columbia (4%), Jamaica (4%), El Salvador (4%), Guatemala (2%), Trinidad & Tobago (2%), the United Kingdom (1%), Vietnam (1%) and others (16%).

17. These numbers are found on study page 36. Interestingly, the violent crimes are broken down further to 25% of the homicide, 22% of the sexual assault, 15% of the robbery & 27% of the aggravated assault assailants under the influence of alcohol at the time of the commitment offense. More than 70% of the public order
offenses were DWI/DUI (skewing the numbers of all other offenses in the category and reducing the statistical usefulness of this category).

18. Similar collective secondary data research has been done as far back as the 1950s. For example Spain, Bradness & Eggston, (1951); Fisher, (1952); Wilentz, (1953); Shupe, (previously mentioned, 1954); Tinkleburg, (1973); and Taylor, (1977). See reference section for citation information. These studies are dated and redundant, so are not explained further in this research.

19. Pernanen's body of work also includes older reports written in 1976 (an unpublished conference presentation) and 1979 which were intellectual building block impetus for his later publications already explained in some detail (1976, 1981 & 1991). Three other Wolfgang research pieces also shed light on this subject and (apparently) influence the large NIJ BJS studies explicated in this chapter (e.g., Wolfgang, 1956, 1967 & 1972, all also dated and somewhat redundant).

20. These ideas (disinhibition and the situational context of drinking/violence) correspond in general with the concepts linking alcohol and crime (not necessarily violence and violent crime) presented by the previously referred to 1995 House of Commons "all Party Group on Alcohol Misuse" Alcohol & Crime: Breaking the Link document. For example: disinhibition (p. 1), Dutch Courage (or drinking just before a risky act in order to bolster one's bravery, p. 27) or alcohol used in certain situations to combat isolation and loneliness (p. 27). They also discuss heavy consumption at closing time just before alcohol sales are discontinued (a situational factor). Drinking coincidental to crime such as liquor law violations, subject incapacitation through cognitive impairment and criminal incompetence which is enhanced by alcohol are also general situational factors.

21. Deviance or abnormal activity indicates some violation of societal norms, while criminal activity involves breaking of norms which have been codified in legal statutes (see Sutherland & Cressy, 1966 cited in references). This statement accounts for those who by chance are caught, arrested and indicted (in the case of serious crimes), convicted and serving time in a prison overseen by the government at some level. In the American criminal justice system violent and
nonviolent individuals exit the above mentioned chain of events all along the way prior to more permanent incarceration. Thus all violent individuals are not accounted for (perhaps nor will they ever be in relation to alcohol abuse or any other selected variable).

22. For example data confirmation can be accomplished by cross-referencing inmate self-reports referred to here and used in larger collective studies. Inmate responses can also be checked by their case record for specific response accuracy (e.g., to demographic questions) and overall truthfulness. As a final check, a standardized instrument can be used to "test" accurately for alcohol abuse as specified in the DSM-IV. Thus data triangulation will be achieved by using triplicated sourcing. The reliability of the information gained and the subsequent analyses is then significantly increased (see method section for details).
METHOD

Two of the most important theoretical issues largely missing from the current literature on alcohol abuse are the situational context of drinking and crime and the effect of alcohol disinhibition on the occurrence of violence (see Roman, 1981; see also Rada, 1975; Greenburg, 1981; Collins 1981; Weiner & Wolfgang, 1982; Collins, 1983; Ripa, 1985; and Roth, 1994). This research addresses the study of alcohol abuse and violent crime through the framework of the above specified theories. This chapter is divided into six sections: research questions, hypotheses, data collection, research design, experimental subject protection and reliability/validity of method.

The previous chapter reviewed the research literature on alcohol abuse and violent crime. Deficiencies in the understanding of the relationship between these two variables were identified. These included: (1) loosely defined concepts of alcohol abuse and violent crime, (2) biased sampling procedures, (3) failure to control for intervening variables, (4) missing contextual information, (5) lack of a governing theory and (6) the failure to distinguish between cultural subgroups of drinkers who commit violent crimes (e.g., see Greenburg, 1981; Myers, 1984; Forest & Gordon,
1990; Pernanen, 1991; Roth, 1994 etc.). In general, this study addresses four of these issues: (1) definitions, (2) random sample collection, (3) theory insertion and (4) subgroup analysis. Additionally, this research builds on the findings from previously published studies in this area that were explained in chapter two. Among these are Myers, 1984; Forest & Gordon, 1990; Pernanen, 1991; Roth, 1990 and both Bureau of Justice Statistics studies (1995 & 1998). 

Research Questions

In general this study asks: are inmates whose crimes are classified as violent more likely to be diagnosed as long-term alcohol abusers than inmates who are nonviolent? Specifically, can inmates who are violent or nonviolent based on their criminal convictions be differentiated in terms of frequency and quantity of alcohol usage? Additionally, what effect does race, gender, age, income level, occupation and educational attainment have on the primary research questions above (i.e., will controlling for these factors alter the results)?

Additional specific questions answered included: (a) Does the consumption of alcohol in excessive quantities immediately prior to or simultaneous with the commission of a criminal offense significantly
increase the likelihood that this event will turn
violent? (b) Are inmates charged with alcohol related
crimes more likely to also be involved in violent crimes?
(c) Does the amount of alcohol used or where it is
consumed or where it is obtained or where the crime
actually occurs or the type of criminal offense matter
as above. These questions are addressed individually
by the chosen instrumentation for data collection.

Other questions which were derived from the
literature review and answered in chapter five in order
to build on the previously published research include:

1. Will the results from nationwide secondary
data survey of inmates confirm or refute findings
associated with a primary data collection of
interviews etc.?
2. Will the national data trends compare favorably
with this study's information derived from a single
state's inmates and vice-versa?
3. How will all the data trends identified in
this research compare with the international results
4. Will the percentile and other descriptive/
inferential statistical relationships found by
Myers, 1981, Forest & Gordon, 1990, Pernanen,
hold when compared with results from this research?
5. Will demographic profiles of Louisiana inmates
compare to states across the United States and/or
nationally?

Hypotheses

General Hypothesis One

Alcohol abuse, as defined by the DSM-IV is not
statistically related to whether an inmate who is
currently serving time in a Louisiana prison was
convicted of a violent crime at the .05 level of significance as tested by multiple regression analysis.

Specific Hypothesis One

The amount of alcohol consumed during the commission of a crime is not statistically related to whether an inmate was convicted of a violent crime.

Specific Hypothesis Two

The frequency of alcohol intake prior to the commission of a crime is not statistically related to whether an inmate was convicted of a violent crime.

Specific Hypothesis Three

The time that alcohol was consumed prior to the commission of a crime is not statistically related to whether an inmate was convicted of a violent crime.

Specific Hypothesis Four

The location where alcohol is consumed prior to the commission of a crime is not statistically related to whether an inmate was convicted of a violent crime.

Specific Hypothesis Five

Alcohol abuse is not statistically related to whether an inmate was convicted of a violent crime when controlling for the following demographic variables: (1) race, (2) gender, (3) age, (4) income level, (5) occupation, or (6) educational attainment.
Operationalization

The dependent variable is violent crime (murder, rape, armed robbery and aggravated assault) and the main independent variable is alcohol abuse. Violent crime is defined by the FBI (UCR) and alcohol abuse by the DSM-IV (a yes answer to one or more of the criteria explained in the DSM-IV on p. 182). The dependent variable was categorically broken down and stratified by (a) those inmates convicted of one of the four crimes above and serving time at LSP, DCI or LCIW; or (b) those inmates with a criminal history of arrest for one of the violent crimes, but currently serving time on another type of offense. Inmate current charges, criminal history and self-reported alcohol usage were also used to establish five stratified classifications of the dependent variable: violent crimes involving alcohol, violent crimes without alcohol present, non-violent crimes involving alcohol, non-violent crimes with no alcohol involvement and no criminal history.

The independent variable was established by the results of inmate completion of demographic/consumption interviews and the MAST questionnaire (with some level of verification added by record information reviews). Operationalization was therefore controlled by the general criminal profile and an ex-post-facto clinical
diagnosis developed from the previously reported instrumentation. Alcohol consumption was measured in ounces (i.e., one beer, one bottle of wine or one shot of whiskey etc.).

Data Collection

Three types of data were collected: (1) personal demographic information interviews, (2) a standardized alcohol abuse questionnaire and (3) a random sample of inmate record information. Data were collected by identifying randomly chosen offenders by the typology previously mentioned and then interviewing 424 inmates on-site in the prison. Demographic data collected included age, race, marital status, home of record, commitment offenses, criminal history, occupation, educational attainment, income level and length of sentence. Additionally, self-reported consumption rates simultaneous to the offense, for the date of criminal offense, within two days of the offense, the week of the offense and during a typical week were obtained. Data referring to where the crime occurred, where the inmate usually drinks and where they normally obtain their alcohol were also collected.

Setting

Three prisons within the Louisiana Department of Public Safety & Correction (LDPS&C) were chosen as field
research sites: the Louisiana State Penitentiary (LSP), Dixon Correctional Institute (DCI) and the Louisiana Correctional Institute for Women (LCIW). These prisons were chosen for their diverse inmate populations, long-term incarceration designation (for the development of subject continuity) and their availability to the researcher. These sites were also selected because their inmate populations included a wide variety of sentence and other demographic parameters (e.g., males and females, shorter-term medium custody level and longer-term maximum custody level inmates etc.).

Institutional Identification

LSP at Angola, Louisiana is a maximum security 5,200 (inmate) bed adult penal facility located on 18,000 acres (encompassing 28 square miles) approximately 50 miles north of the capital city of Baton Rouge. It is isolated on three sides by the flood prone Mississippi River as well as the heavily wooded Tunica Hills on the fourth. LSP employs more than 1,500 workers and is acknowledged as the largest maximum security prison in the United States (LDPS&C, 1999).

DCI is located in Jackson, Louisiana approximately 30 miles north of Baton Rouge. It is a 1,620 inmate bed medium security prison. It was chosen to balance the large number of male inmates classified as maximum
security at LSP and to counterbalance Angola in terms of sentence length (LSP typically houses inmates with much longer sentences). Although DCI is officially classified as medium custody level security, it does also house a number of maximum security inmates for various reason (e.g., those taken from LSP who have special skills needed for work performance within DCI's campus).

LCIW is located in St. Gabriel, Louisiana, approximately 20 miles south of Baton Rouge. All female prisoners are processed and incarcerated here (after conviction and formal sentencing is accomplished). The facility's capacity, which remains at or near full at all times is 909 beds. Inmates are primarily from Louisiana (ordinarily representing all 64 civil parishes), but as many as 25 other states in various regions of the United States have been represented in the prison's history.

Population

The population for this study was drawn from adult inmates from the Louisiana Department of Public Safety & Corrections (LDPS&C). The possible (population) participants included males and females age eighteen and older from all general racial, ethnic and socioeconomic backgrounds. All subjects were convicted
of felonies in Louisiana, given determinant or life sentences and assigned to the LDPS&C, post-adjudication.

The various setting populations are also inclusive of former citizens from more than 18 states and three foreign countries which adds to the generalizability of this research. The population was incarcerated at the facilities in question and were available for consideration during the sampling period (except small numbers of inmates who are on death row, in isolation facilities due to disciplinary infractions or illness or off site for court or medical treatment). Using a large cross-sectional sample increases the power of the study and therefore its sensitivity to detect a real magnitude effect of the independent variable. Using different types of prisons with various rule structures, in different locations (cities) with demographically different types of inmates serves the additional function to increase external validity and as another control measure.

Sample

Study subjects were chosen randomly by each of the three facilities' security and administrative personnel using offenders on their inmate roster at the time of the sample. Every other available inmate was selected and then initially asked in their current
housing location by LDPS&C employees if they would volunteer to participate in this study. Those who accepted were assembled in group interview locations (the chapel at LSP, the visiting room at DCI and gymnasium at LCIW). The details of the project were then explained to the inmates by the principle investigator so that written consent for participation could be obtained.9

Approximately 155 (or about 37%) inmates refused participation at this juncture which resulted in a resampling of the derivative populations to acquire additional volunteers (systematic random sampling with replacement; a profile of the inmates who refused participation is presented with the other results in chapter four). The sampling method was purposive in the area of site selection.10 The raw data was collected and placed into a tabular matrix for analytical purposes to follow.11

Quality Control and Time Frame Analysis

Interviews took place in the assigned locations with the principal investigator supervising two research assistants. Appropriate assistance was provided by LDPS&C security, mental health and classification personnel in accordance with each facility's standard operating procedures (see acknowledgments for names of those who
provided assistance). The response rate was approximately 73% due to the refusals mentioned above. The attrition rate was less than 2%, taking into account the small number of study drop-outs due to disciplinary or validity of answers issues. Permission for all research work was first obtained from the Louisiana Department of Public Safety & Corrections as well as individual facility administrative authorities and Louisiana State University's Institutional Review Board (IRB), Human Subjects Committee, full review process. Data collection at the three prisons required approximately two weeks using sessions scheduled by the institution's point of contact.

Materials

Each inmate was given a standard formatted survey instrument to complete (the "Brief MAST"). This instrument was chosen because it is easy to use with inmate populations, easy to complete and score and because of its proven reliability and validity in the matter of determining alcohol abuse (Watson, 1989).

General biographic, demographic and alcohol consumption information was collected using a survey form. It is locally devised and designed to easily and quickly capture this data from inmates with a small
number of questions (refer to Appendix A for the types of data collected in this manner).

The screening instrument identified ambiguities and deceptive answers from the self-reported information. This along with consumption data allowed for a licensed clinician (in this case, the principle investigator) to make a diagnosis of alcohol abuse based on the criteria published in the DSM-IV (see 305.00, p. 196). Available case record information which verified certain answers added another control measure to the data collection and analytical process.

Research Design

The study's overall design was ex-post facto in that the inmates were classified by their relative level of alcohol use and crime which occurred in the past. The investigation judges inmates now, but based on the situational context and time frame which could have occurred many years previously. Meeting the diagnostic criteria for alcohol abuse was also to some extent based in past events, although the MAST instrument does pose some relevant questions based on the inmate's more recent potential status relative to alcohol abuse.

The study's level of measurement is nominal (yes/no diagnoses and other demographic and crime categories such as gender or the inmate's criminal charge) and
ordinal (non-equivalent and equally spaced scaling in terms of alcohol quantities and certain information derived from the control variables; see Appendix D, data coding). Most data were also categorical. The unit of analysis was nonaggregated individual data with a total sample of 424 inmates (using limited sample individual level data acts as an additional non-attached control measure).

Data Analysis

In order to quantitatively assess the magnitude relationship between alcohol consumption and violent adult crime, inmates imprisoned for violent offenses were compared to nonviolent-violent offenders. Effect means derived from the survey instrumentation from each group were cross-compared. Demographics from each questionnaire were sorted out using measures of central tendency and dispersion in order to search for patterns. This included race, age, home of record (mostly for generalizability), marital status, gender, income level in dollars, occupation, educational level of attainment and length of sentence. This information was also used to assert external validity (see Appendix D for coding of these items).

Raw number reports of the violent crime group and the comparison groups' positive tests for alcohol abuse
and alcohol consumption amounts (at five timed levels) were compared for each dependent variable category (male and female adults) using a step-wise multiple regression analysis (with inserted controls as previously described). The basic design compares the assigned groups (violent versus non-violent) for alcohol abuse, reinforcing alcohol consumption, location patterns and types/location of crimes committed. Factors or levels of the independent and dependent variable are thus established. Using two typologies of both violent and non-violent offenders establishes a comparison group (non-violent inmates) to contrast with the violent offenders.

Each group's descriptive statistics scores were analyzed for cross comparison. This procedure was used to provide some level of inference and by implication, generalizability. Testable questions related to these descriptors are presented on the primary data form in Appendix A. The standardized survey instrument (see Appendix B) provided ten categories of information which along with alcohol consumption data retrospectively established the diagnosis of alcohol abuse (in accordance with the DSM-IV) for a conclusive contrast.

Multiple regression was used to analyze and test hypotheses general one and specific one through five.
Six demographic control variables (race, gender, age, income, occupation and educational attainment) were inserted for comparison to test specific hypothesis five which allowed direct manipulation of the primary independent variable (alcohol abuse). Using subclassifications of alcohol use versus no alcohol use as well as actual criminal charges (the charge that the offender is serving time for) versus the previous criminal history's highest offense provided stratification both alcohol abuse and violence. The true impact of the independent variable on the dependent variable is then in this case isolated to create a more coherent (potential) causal chain. This also helps to address autocorrelation (serial dependency or serial correlation of the equational error term). This is accomplished by not omitting what Neter, Kutner, Nachtsheim & Wasserman (1996) call "one or several key variables" fundamentally necessary for the (regression) model's successful prediction of the independent variable's effect on the dependent variable (p. 497).

Analytical Procedure

The basic analysis strategy used multiple (multivariate) regression to synthesize categories of information obtained from the instruments and analyze
for statistically significant differences. The comparison of inmate derived information (again corresponding to each category) addressed testing on two levels and thus provided a more powerful overall statistical analysis. Correlations were provided by using step-wise multiple regression and are reported in tabular format with appropriate textual explication. Correlation coefficients and other analytical information are provided in chapter four (results) as was generated by a typical Statistical Package for Social Sciences (SPSS) operation.

One general and five specific hypotheses were tested individually using multiple regression (by regressing the rates of alcohol abuse, quantity of consumption etc. on the numbers of violent versus non-violent criminals). In order to reject general hypothesis one, three of the five specific derivative hypotheses had to be accepted in the null. Specific hypothesis five was also a stand alone fail to reject decision. Each category was also further compared by the percentages of inmates with alcohol abuse problems who were violent offenders to the non-violent comparison group (examining descriptive statistic demographic profiles). This hypothesis test strategy was economical, provided strong technical qualities and objectivity, as well as quick-scoring and uniformity.
Experimental Subject Protection

Formal approval for experiments on human subjects was obtained from the Louisiana State University (LSU) Institutional Review Board (IRB) using the full review process. LDPS&C officials and prison officials were also consulted for on-site approval and it was obtained. This was done by contacting each warden involved (Burl Cain at LSP, James LeBlanc at DCI and Johnny Jones at LCIW), who then in turn petitioned departmental headquarters for project approval. Informed consent from each voluntary participant was obtained prior to the conduct of the study (using a form approved by LSU IRB, see appendix C). Group briefings were held prior to beginning to stress the voluntary nature of this project, that no consequences will occur if they refuse to participate and the lack of potential secondary gain for inmates (e.g., an early release, favorable notations in inmate case or mental health records, pardon or parole recommendations etc.).

In all cases, strict process confidentiality was observed. No names will be used after selection. Handwritten survey results will be kept in a secure filing cabinet with limited access. The principal investigator assigned anonymous case numbers to all paperwork. Operating procedures consistent with the professional
ethical codes involved were also implemented. The National Association of Social Workers (NASW) and the Louisiana State Board of Social Work (license) Examiners both require that practitioners and researchers alike to "consider carefully the consequences for human beings" when conducting research (Hepworth & Larson, 1990, pp. A2-A3). This includes informed consent without any real or perceived penalty for non-participation, confidentiality of results and non-disclosure of information, other than in a professional and appropriately redacted setting. Protection of study participants from deprivation or harm is also strictly required (Hepworth & Larson, 1990).

This research involved no clinical treatment, counseling or therapy of any kind and did not involve any intrusive bodily or medical procedures. Sensitive personal information which was gathered for this research will not be used in any proscribed manner. Data files will be kept confidential and shared only in aggregate form (i.e., no individual data, only the collective numerical values in the final report). The information in final written form will be maintained by LSU and provided to the LDPS&C. No other data, information or hand-written forms will be maintained beyond the length of this research effort. Informed consent documents
will be maintained for three years in accordance with LSU IRB policy. These steps minimize or eliminate any risks to this very vulnerable human population. Reliability and Validity of Methodology

This research was designed to avoid a capricious analysis and to account for most extraneous variance. Limits to internal validity were carefully controlled for by use of a large sample (n), tight variable operationalization, use of a comparison group, and insertion of control variables. Randomized sampling and selection of a previously published primary research instrument with proven reliability and validity also reinforce study reliability.

External validity is a more formidable problem, but is nonetheless provided by the demographic diversity profile of the inmates used and the representative comparison of the random sample versus the population surveyed. This allows for generalization to the state of Louisiana and beyond to the region. Generalizability to the entire state population or beyond to the United States is a more difficult proposition. Randomization and holding factors constant will help to mitigate against the plausibility of rival hypotheses developing (with this specified population and variable selection). The sample's size is large enough to add power to the
study and reduce hypothetical error rates without becoming so large so that no additional information is derived from the additional logistical difficulties generated thereof.

End Notes

1. The control variables chosen for use in this research have been widely justified in the literature as predictors in the area of substance abuse (which would otherwise skew a straightforward statistical analysis). For example see Anderson, 1993 (p. 207) or Fraser, 1993 (p. 2,453-2,455) who list risk factors in substance abuse which generally correspond to the control variables chosen herein. Numerous other authors have written extensively about race and crime, sex and crime, poverty and crime, age and crime or occupation and crime (e.g., Steffensmeir & Allan, 1991; Shihadeh & Flynn, 1996; Massy & Denton, 1991; Kasarda & Janowitz, 1974; Steffensmeir & Harer, 1991; Shihadeh & Steffensmeier, 1994 etc.). The importance of these individual variables as confounding issues in alcohol abuse can also be easily inferred from the national statistics presented by Roth, 1994 or the BJS studies (1995 & 1998).

2. For typical break-out patterns of disbursement in terms of percentages of offenders nationally who fall into these type of categories, see Forest & Gordon, 1990, Pernanen, 1991 etc. The 12 months referred to here is applied to the pre-incarceration commission of the crime (i.e., the 12 months preceding the criminal incident for which they are imprisoned). The DSM-IV parameters for alcohol abuse (and substance abuse in general) include (paraphrased) a maladaptive pattern of abuse leading to clinically significant impairment or distress, as manifested by one (or more) of the following within a 12-month period: failure to fulfill major role obligations at work, school or home [e.g., repeated absences, suspensions, expulsions or neglect/abuse of children]; recurrent abuse in situations in which it is physically hazardous [e.g., driving automobiles or operating machines/equipment]; recurrent legal problems [e.g., arrests for disorderly conduct related to alcohol]; or continued use despite persistent social or interpersonal problems caused or exacerbated by the effects of alcohol; pp. 182-183).
3. Criminological literature and statistics also suggest that offenders are possibly serving time in some states for an offense other than the one which was actually committed at the scene of the crime due to various plea arrangements. The ultimate typological breakdown is as previously presented: violent crimes involving alcohol, violent crimes without alcohol involvement, non-violent crimes involving alcohol and non-violent crimes with no alcohol involvement.

4. The lack of reliability of self-reported alcohol consumption data taken from inmates is addressed by Myers, 1984. Also see Plant & Plant, 1979 among other sources. This fact of lacking reliability and the sensitive internal validity issue necessitate the need for multiple sourcing where inmates are concerned. A sample of record information was used to verify inmate responses on questionnaires and add to the reliability and validity of the data collection (confirming and triangulating data sources).

5. A 95% confidence interval establishes 424 (359 adult males and 65 adult females) as a representative sample of the subpopulations at the three facilities in question. This procedure was obtained from Pagano, 1994 and represents approximately 6% of the population of about 7,837 inmates. These 6,100 inmates also represent approximately 28% of Louisiana's nearly 27,000 incarcerated persons.

6. State correctional facilities were selected since the preponderance of violent criminals are charged, convicted and incarcerated in the states (i.e., few violent offenses being considered federal). The three prisons chosen are also more attractive in terms of their location and accessibility. The principal investigator is a former employee of LSP at Angola and thus familiar with procedures, security restrictions and other potential limiting factors within the prison environment in question.

7. The state penitentiary's history dates back to the year 1880. It is named for the African nation from which many of its first inmates who were former slaves originated. The facility was labelled by the media as "America's worst prison" in the 1950s (Carleton, 1971; p. 135). Substantial reforms have been instituted since the state of Louisiana entered into a consent decree with the federal court which monitors numerous prison conditions (e.g., see Head v. King, 1979). The original judge in the case E. Gordon West has retired...
and was replaced by Judge Frank Polozola who released Angola from day to day oversight in February of 1999, but continues to monitor the facility periodically for compliance with court orders (Federal Middle District Court of Louisiana).

8. The error margin is \( \pm 0.05/5\% \). This large cross-sectional sample size will increase the power of the study and therefore its sensitivity to detect a real magnitude effect of the independent variable (if any). Alpha level was set at the standard rate for social science experiments (0.05). This step also increases power \( (\beta = 1 - \text{power or in this case the probability of a type II error; see data analysis}) \).

9. As required by the LSU IRB and the LDPS&C, no inmate identifying information was used beyond his or her assignment to the to be interviewed group and physical location within the prison (see experimental subject protection for details).

10. The sample was not pre-stratified before group assignment (by alcohol abuse, violent and non-violent criminals or other previously specified break downs such as gender). This allows for creation of a desired set of heterogeneous groups (see data analysis). No additional stratification of the sample is required (i.e., no pre-clustering by age etc.). Once inmates were all interviewed and the forms collected, they were assigned into groups by typology (e.g., violent offenders with alcohol-related charges etc.).

11. Those convicted of multiple violent and non-violent crimes were assigned in each case by their highest charge in terms of the LDPS&C severity of criminal offense index.

12. Refer to the literature review in chapter 2 for more detailed information on the MAST (p. 47). The MAST is often used by clinicians and researchers for determination of alcohol abuse.

13. These steps eliminate or at least minimize any risks to this very vulnerable human population (see the Belmont Report, 1979; benefits must be greater than risks associated with the study's participants).

14. As above, see instrumentation section for details on the reliability and validity of the MAST. A determination of the reliability of the locally devised instrument was not necessary in that it derives general
demographic information only to establish analytical categories (based on the controls to be inserted and verified by the literature review). This information was straightforwardly obtained by the preliminary demographic questionnaire. It was also verified by sampling information from inmate case records. This adds an additional control measure and data triangulation to the analysis (two questionnaires plus a random sample of approximately 10% of the available case record jackets). All easily verifiable information was checked in the case record to identify inconsistent or altogether untruthful answers given by inmates. In this manner, inmate information which was identified as suspect could be discarded (and thus did not contaminate the analysis).

The quantity of alcohol amounts were chosen (see Appendixes A or D) in accordance with the literature. See Myers, 1984 and Gelberg et al, 1988 (p. 194) for justification of quantification.

15. Generalizability is conclusive to a population of only 7,637 inmates, but demonstrably generalizable to an inmate population in Louisiana of nearly 27,000. Generalizability to similar prisons/inmates (demographically speaking) in the region of the South, especially the so called deep old South is possible (states such as Mississippi and Alabama). Generalizing beyond those areas to the rest of the nation is much more difficult to establish a priori.
RESULTS

This chapter reports the findings of this research. It is divided into three major sections: hypothesis testing, sample demographics and a comparative summary of the results.

Hypothesis Tests

One general and five specific hypotheses were tested using multivariate multiple regression analyses.¹ The testing resulted in failure to reject four of five specific hypotheses (numbers one through four) in null form. General hypothesis one and specific hypothesis five were rejected. Tables one, two and three are inserted and present reinforcement to the textual explanation of the hypothesis tests. Refer to Appendix F for an additional tabular presentation of the raw data which was collected.

General Hypothesis One

It was hypothesized that alcohol abuse is not statistically related to whether an inmate is convicted of a violent crime. General hypothesis one was not supported (rejected). Bivariate correlations and regression of alcohol abuse diagnoses on primary criminal offenses, prior charges and individual alcohol consumption patterns at five timed levels revealed very significant statistical relationships.² This relationship between alcohol and violence as manifested by violent
crime remains consistent with only two interruptions in statistical significance. Table 1 shown below presents the overall results of these preliminary analyses.

Table 1

<table>
<thead>
<tr>
<th>Dependent Variable Combinations</th>
<th>a</th>
<th>b</th>
<th>r</th>
<th>p</th>
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</thead>
<tbody>
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<td>Primary Offense &amp; Alcohol Abuse</td>
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<td>.800</td>
<td>.048</td>
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<tr>
<td>Prior Offense &amp; Alcohol Abuse</td>
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<td>.906</td>
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<td>.018</td>
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<td>.563</td>
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<tr>
<td>Primary Offense &amp; 24 Hour Consumption</td>
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<td>.349</td>
<td>.877</td>
</tr>
<tr>
<td>Primary Offense &amp; 48 Hour Consumption</td>
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<td>.169</td>
<td>.875</td>
<td>.026</td>
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<tr>
<td>Primary Offense &amp; 1 Week consumption</td>
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<td>.016</td>
</tr>
<tr>
<td>Primary Offense &amp; Typical Consumption</td>
<td>.549</td>
<td>.415</td>
<td>.894</td>
<td>.022</td>
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</table>

n = 424

As Table 1 reports, alcohol abuse was significantly correlated with both current and prior criminal offense. Drinking simultaneous to and the day of the offender's current criminal charge did not show significance. Lengthier time periods in relation to the crime for which the inmate is currently serving sentence and
amounts of alcohol consumed were shown to be significant (within 48 hours and 1 week consumption as well as typical drinking patterns which are a much more reliable indication of alcohol abuse as a diagnosis). The results presented by table 1 were also used in the analysis of specific hypotheses two and three.

Violent criminals composed 173/424 members of the sample (41%). Of those 61/112 or 54% were identified as having their crime related to alcohol use (see end note nine for an explanation of "alcohol related crime"). Additionally, 73/173 or 42% of violent criminals received a DSM-IV based ex-post-facto diagnosis of alcohol abuse (DSM-IV # 305.00). This indication is further supported by observation of the trends in individual violent crimes. Sixty-percent of those sampled who were convicted of aggravated rape received an alcohol abuse diagnosis. Of those charged with aggravated battery, 50% were diagnosed as alcohol abusers. Approximately 39% of all violent criminals sampled were drinking alcohol in some quantity at the time of the commission of their crime. This includes 36% of first degree murderers, 38% of second degree murderers, 83% of those convicted of aggravated battery and 56% of the rapists surveyed.

It should therefore be concluded based on 5/7 alcohol use and violent crime combination criteria
achieving statistical significance and the descriptive statistical evidence presented above, that alcohol involvement in crime increases the possibility of coincident violence resulting in a charge for a violent crime (given this sample). The primary null hypothesis is rejected.

Specific Hypothesis One

It was hypothesized that the amount of alcohol consumed during the commission of a crime is not statistically related to whether an inmate is convicted of a violent crime. Specific hypothesis one was supported (failed to reject null). Similarity between the type of crime and consumption amount relative to that crime was refuted by the regression analysis of the same which failed to achieve statistical significance (a = −.323, b = .400 and p = .060). A significant interaction effect is only achieved when violent criminal activity is removed from the analysis (i.e., alcohol's interaction with any crime was significant, but not with violent crime alone).

In addition, approximately 60% of the violent offenders surveyed consumed no alcohol around their commitment crime. About 17% consumed a negligible amount (< 4 ounces) which is unlikely to have contributed to the behavior in a significant way (a conclusive total of 77% with little or no alcohol consumption).
Specific Hypothesis Two

It was hypothesized that the frequency of alcohol intake is not statistically related to whether an inmate is convicted of a violent crime. Specific hypothesis two was supported (failed to reject null). Drinking alcohol in any amount any number of times measured on the day of the crime was not found to be a factor of influence in the criminal event in question turning to violence. A statistical relationship between alcohol intake frequency and an inmate's crime being violent was contraindicated by regression analysis (a = .304, b = .415, p = .877).

Frequency comparisons of the distributions of inmates who fell into each separate category also support specific hypothesis two. For example, the number of inmates who consumed alcohol more than one hour, but within 24 hours of their incarceration offense increased by only eight points (39 to 47%). With individual crimes, the increase was similarly marginal (second degree murder: 38 to 45%; armed robbery: 25 to 33%; aggravated rape: 52 to 64%; and aggravated assault about 83% each). It should be concluded based on this sample that frequency of drinking did not influence the chance for a crime to be violent and therefore result in more likelihood of the inmate's charge being for a violent rather than a nonviolent crime.
Specific Hypothesis Three

It was hypothesized that the timing of alcohol consumption is not statistically related to whether an inmate is convicted of a violent crime. Specific hypothesis three was supported (failed to reject null). Alcohol consumption simultaneous to the crime was not as previously reported (under specific hypothesis one) significant to the propensity for these crimes to be violent (in fact just the opposite was found to be true with this sample). Of the five timing levels for alcohol consumption used in the analysis, 48 hour consumption the amount consumed during the entire week in which the offense occurred and typical weekly consumption were found to be significant (48 hours: $a = .121$, $b = .169$, $p = .026$; within 1 week: $a = .213$, $b = .286$, $p = .016$; typical week: $a = .549$, $b = .413$, $p = .022$).

These are substantially less accurate measures of alcohol's chemical and psychological effect on criminality and more generally indications of a pattern of alcohol use problems (thus resulting in a greater likelihood of being assigned the long-term diagnosis of alcohol abuse, even though in this instance, it had marginal effect on their commitment circumstances). Little linkage can therefore be asserted between the timing of alcohol use and an inmate's crime being violent (given this sample).
Specific Hypothesis Four

It was hypothesized that the location of an alcohol related crime is not statistically related to whether an inmate is convicted of a violent crime. Specific hypothesis four was also supported (failed to reject null). Regression of the location where the crimes in question took place on crimes involving alcohol did not reveal statistical significance ($a = .507$, $b = .066$, $p = .070$). In other words, the location of the crime was incidental to it being violent and places where alcohol was coincidentally served were no more or less likely to be the location of a violent crime.

For the entire sample, a plurality of the crimes (34%) occurred on the street (outside, not in a home or business). Other significant percentages for crime locations included 9% in the offender's home and 11% in the victims' homes. For violent criminals, 24% of the crimes occurred on the street and 12% in their victims' home. All other categories were distributed evenly to approximately 6-9% each. Locations where alcohol is ordinarily available (such as bars or stores) accounted for significantly fewer locations where crimes occurred (approximately 6% each).

Specific Hypothesis Five

It was hypothesized that alcohol abuse is not statistically related to whether an inmate was convicted
of a violent crime when controlling for the following demographic variables: race, gender, age, income level, occupation and educational attainment. Specific hypothesis five was not supported (rejected). Alcohol abuse was a statistically significant factor in an inmate's crime being violent, given this sample (after inserting controls mentioned above which were previously reported in the literature as potential interruptions in the alcohol-crime causal chain). Table 2 below presents these correlation scores.

Table 2
Intercorrelation Matrix

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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>7</th>
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<td></td>
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<tr>
<td>4</td>
<td>.806*</td>
<td>.919*</td>
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<td>.837*</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

n = 424

1 = violent crime 5 = race
2 = alcohol abuse diagnosis 6 = occupation
3 = gender 7 = income
4 = age 8 = education

*indicates statistical significance at the .05 level or below.

High correlation scores between alcohol abuse, violent crimes and all six control variables were noted.
Correlation scores greater than or equal to .6 are indicated in table 2 as statistically significant. The large number of highly significant correlations is not only a sign of a close relationship between the primary dependent and independent variable and the controls, but also a suggested need to confirm these relationships with a more rigorous and powerful regression test. These results are presented below in table 3.

Table 3

Multiple Regression Analysis of Violent Crime Predictors: Unstandardized and Standardized Regression Coefficients

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>p</th>
</tr>
</thead>
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<td>(constant)</td>
<td>.546</td>
<td>-</td>
<td>.000</td>
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<tr>
<td>Alcohol Abuse</td>
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<td>Gender</td>
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<td>Age</td>
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<td>.609</td>
<td>.032</td>
</tr>
<tr>
<td>Income</td>
<td>.278</td>
<td>.124</td>
<td>.056</td>
</tr>
<tr>
<td>Education</td>
<td>-.199</td>
<td>-.010</td>
<td>.039</td>
</tr>
</tbody>
</table>

n = 424

Each of the six control variables was regressed with alcohol abuse and violent crime for significance. Individually, all showed highly significant relationships which is a suspect conclusion, despite variance inflation within acceptable limits (for each separate analysis, variance inflation factor [VIF] was less than 3.0 which is well within the normal range). When all of the above
are mixed in a single (multiple) regression analysis (which is a more appropriate model for regression in this case), the significance of alcohol abuse in relationship to violent crime remains. 3

Tables 2 and 3 also illustrate the significant relationships between these variable in a way so as to demonstrate that the demographic variables occupation, age and education also predict alcohol abuse in this case which in turn predicts a stronger predilection for violent crime (manifested by a violent criminal charge being more likely than a nonviolent offense, given this sample). The model used here can also be strengthened further by a component analysis of alcohol abuse and the four UCR individual violent crime types (i.e., regressing alcohol abuse on murder, rape, armed robbery and aggravated assault). This secondary analysis of the sample's overall violent crime selection supports the conclusion that alcohol abuse is a significant statistical factor in violent crime. Alcohol abuse was significant in murder (a = .484, b = .516, p = .032), rape (a = .863, b = .137, p = .022), armed robbery (a = .724, b = .276, p = .029) and aggravated assault (a = .940, b = -.044, p = .015).

Sample Demographic and Comparative Summary

The demographic profile derived from surveys of inmates and facility records compared favorably to the
actual characteristics of the total populations incarcerated in the three prisons in question. The percentages of inmates which fell in the various comparison categories (e.g., racial make up) compared somewhat less favorably with the state wide corrections population. Demographic percentile scores were even less compatible with Louisiana, other regional states and/or United States citizens at large.

Nearly 50% of Angola's inmates have been convicted on murder (first or second degree), as were 48% of those sampled. In addition, 13.4% of Angola inmates are armed robbers and 11% are rapists which compared with approximately 13 and 12% respectively for the random sample taken. Overall, violent offenders represent about 78% of the LSP population and 73% of the sample participants. Eighty-five percent of Angola inmates are serving ten or more years as their sentences (as were 86% of those sampled). This includes approximately 70 and 69% respectively having incurred a life sentence. The majority of Angola inmates (57%) are between the ages of 30 and 60, while the sample's percentage from this age range was 67. The percentage of Angola inmates under 30 is 13 and those over 60 represent approximately 1% (the sample chose 12 and 4% respectively).

LSP's inmate racial classification breaks down as compared to the sample as follows: African-Americans
(72 versus 68%), Caucasians (27% each), all others (1 versus 5%). Particular ethnic groups listed in the other race classification such as Native Americans are slightly over-represented (.1% versus approximately 3%). Likewise Hispanics make up about 1% of the LSP population and about 3% of this sample. The generalizability of this sample of approximately 4% of Angola's inmates is relatively conclusive (see tables 5-18 in Appendix F).

DCI was added to the sites selected to increase generalizability by also sampling inmates from a medium security facility which houses substantially more short-term offenders when compared to Angola (in relation to the crime committed by severity and ultimately the corresponding length of sentence). This provides for a more balanced analysis of Louisiana inmates. For example, no inmates sampled from DCI had life sentences and only approximately 11% were to be held for longer than ten years (most of these inmates are kept at this facility for various work crew assignments). This leaves 89% of DCI inmates with shorter determinate sentences as were an equal 89% of the sample. Approximately 18% of DCI inmates were considered violent offenders by their charge (20% of those sampled). More specifically, at DCI only 1, 14 and 2% respectively of their assigned inmates were held for serious violent crimes (murder, armed robbery or rape/the sample: 2, 15 & 2%).

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DCI also houses a substantially younger inmate population than Angola. About 40% of DCI inmates are less than 30 years old (30% of the sample) and 66% were between 30 and 60 (63% of the sample). DCI has less than 1% who are over 60 (1 inmate from the sample or about .06%). Generalizability to DCI from the random sample taken there was also achieved.

LCIW's inmate profile is somewhat different than each of the other two institutions. This is primarily due to locating all of the state's female convicted felons in a single facility. About 76% of LCIW's population are sentenced to less than five years (as were 81% of those sampled). LCIW houses 60% inmates who are age 30-60 and 35% under 30 years old (about 65% and an equivalent 35% for those surveyed). LCIW has no inmates over 60 (0 sampled). The LCIW is 70% African-American, 26% Caucasian and 4% other races (the sample being 63%, 29% and 8% in comparison). LCIW has 10% of its inmates who are violent offenders while the sampling procedure chose 8% (from all four UCR categories for violent offenses; again see tables 5-18 in appendix F for additional detail by institution). The LCIW sample is also highly compatible with that institution's population.

When the sample is combined across all three institutions, it is less representative of the overall
LDPS&C population. For example, the female gender is over-represented in this sample (15% as opposed to 7.4% for the LDPS&C). This was done purposefully however to more appropriately balance this sample in terms of male versus female so that gender differences relative to alcohol abuse could be accounted for. Nearly 40% of all LDPS&C inmates are considered violent offenders (49% of the sample). More specifically, this compares with the sample's distribution of UCR violent crimes as follows: 11 versus 22% murderers, 13 versus 12% armed robbers, 3 versus 6% rapists and 14 versus 4% who committed aggravated assault. The racial breakdown for the LDPS&C is 73% African-American, 26% Caucasian and approximately 1% other races (including .1% Native Americans and .5% Hispanics). The sample's racial make-up by corresponding percentages are 68, 23 and 9 respectively (with 3% Native Americans and 4% Hispanics).

State-wide sentencing results also varied from the sample. Fifty-seven-percent of LDPS&C inmates have a sentence of greater than 10 years (only 40% of the sample). Conversely 30% of the sample selectees had life sentences while only 10% did in the entire Department of Corrections. Age classification brackets also differed substantially (< 30, 72 versus 46%; 30-60, 72 versus 51%; and a similar result over 60, 2/1%).
No notable similarities were found between the collective profile of all state and federally held inmates across the nation and this sample. This is not a surprising result in that Louisiana's inmate population as a whole does not compare well with inmates across the country in terms of demographic generalizability (this fact is not particularly remarkable either since Louisiana's overall population of citizens is reasonably unique and does not compare well with other parts of the United States). As an example, approximately 6% of all inmates nationwide are female (and 15% of this sample). Further, races of inmates break down closer, but still with marked differences noted (49 versus 69% African-American; 37 versus 23% Caucasian; 1 versus 4% Hispanic; 3 versus 8% other including a somewhat similar 1.8 versus 3% Native Americans).

The demographic profile comparison of sampled inmates versus the non-incarcerated population of Louisiana and the entire nation is much less favorable. In Louisiana, Caucasian make up 67% of the population, African-Americans compose 30% and other races about 3% (including approximately 2.2% Hispanic and 0.4% Native American). These population trends are nearly a reverse of this study's sample. The difference from this sample to the U.S. population is more pronounced (c.f., 79% Caucasian; 12% African-American; 8% Hispanic; <1% other).
Age bracket comparisons differed significantly from the sample to Louisiana and the United States (those sampled: less than 30, 26%; 30-60, 72%; older than 60 2%). The percentages for Louisiana and the U.S. are 55, 35, 21 plus 51, 34 and 15 respectively. The inmate sample (as would be any sampling of U.S. inmates) is significantly more concentrated in the 30-60 age cohort. Similarly, gender sample differences exist (85% males sampled; 62% in Louisiana and 49% in the U.S.). Marital status differences were also noted vis-a-vis the U.S. population (sample: 16% married, 63% single & 21% divorced versus 59%, 23% & 18% respectively for the entire United States). 5

Finally, inmates in the sample had significantly smaller median incomes and educational attainment compared to both Louisiana and the United States as a whole ($P_{50}$ inmate income: $12,500; $15,700 for Louisiana and $36,000 for the U.S.). 6 In both the entire United States and Louisiana approximately 73% of citizens had four or more years of high school (only 26% of inmates achieved this level of education). 7 In Louisiana and the U.S. 17 and 21% respectively had completed a college degree of some kind whereas only 8% of the inmates sampled fell into this educational category. Nearly 66% of inmates surveyed herein had less than a high school diploma (while only 6% of Louisianians
and 10% of U.S. citizens have this dubious distinction). Proper statistical inference from this study case can only be assuredly made to each of the three institutions examined, to Louisiana's incarcerated population collectively and to a much lesser extent to the aggregate of all inmates in the United States.

Other Gender Differences

Overall, category by category, male and female inmates had generally dissimilar characteristics in this sample. As an example, significant dispersion in income range was observed. The percentage with $0-5,000 was 27 for males, but almost 42% for females. Likewise nearly 10% of males reported over $40,000 in yearly income while no females did so. The next largest categories in terms of differences shown were $5-10,000 (20% male and 11% female) and $10-15,000 (18% male and 12% female). Raw income data by institution (and thus gender) are provided in Appendix F, table 18.

As a further indicator of disparity in the area of wealth/poverty dispersion/concentration, a much larger percentage of female had lower paying (and more alcohol abuse risk prone) jobs in bars and food service (26% female to 6% male). Males inmates also held a much higher percentage of higher paying jobs in manufacturing and skilled machine operation (19% versus 4.5%). However, females and male had similar unemployment
numbers (21 versus 24%). These statistics are generally confirmatory of lower overall indications of wealth and higher concentrations of poverty in the United States among women (see table 13, Appendix F for raw data on occupation by institution/gender).

On the whole, female inmates were slightly more educated than their male counterparts. Approximately 55% of females had 12 or more years of education (including 25% with high school diplomas, 18% with trade school training and 8% with at some college). Males with 12 or more years education represented 52% of those sampled (31, 17 and 7% respectively as above). The numbers who were poorly educated or very poorly educated were also slightly larger among males (10-11 grade: 27% female and 26% male; less than 10th grade: 23% and 26%; 5-7 years: 3% and 7%). Seven males (about 2% of the total) had 0-4 years of education (no female inmates fit this description). Table 14 (appendix F) presents raw education level data by institution/gender.

The women inmates sampled also tended to be less violent than the males (in terms of criminal offense). Approximately 6% of the females had violent commitment offenses as opposed to 47% of males (the percentages are substantially lower at 3 and 12% violent crimes for prior offenses). The number of females with alcohol related crimes was also less overall (12 versus 42%).

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Male inmates sampled tended to be younger (45% of males less than 35 years old versus 35% of females). There were only three females over 50 years old in the sample as opposed to 44 males (5 and 12% respectively). Most male and female inmates were between the ages of 30 and 60 (64 and 60% each; see table 15, appendix F).

The majority of both male and female drinking locations were in descending order in their own home, at a bar/club or another unspecified location (31% male and 21% female; 25 and 23%; 12 and 23% for each category above). The individual percentile discrepancies above fit with the overall pattern of male/female differences. No males or females reported drinking at a school most often. Most males and females obtained their alcohol from liquor stores (26 and 23% each). Convenience stores and bars scored next highest by percentage for primary alcohol source (22 and 15%; 12 and 26%). Female inmates (according to this sample) appeared to obtain their alcohol significantly more often from bars. This corresponds to the larger number who also worked in such establishments. Both are indications of a greater predisposition to criminal activity (especially violent crime) according to the literature previously reported on (tables 20 and 21, Appendix F provide additional detail relative to institutional/gender differences and drinking location/obtaining alcohol).
Some alcohol consumption details demonstrated gender differences. Typical weekly consumption did differ substantially in the no alcohol category (41% male and 29% female). Smaller differences were noted in heavy typical weekly consumption (31 and 40%). Twenty-four hours prior to the crime's commission, consumption levels were markedly dispersed (none: 52% males, 68% females; heavy: 21 and 11%). More females consumed no alcohol within 48 hours (71%) than did the males (58%). Within one week of the commitment offense, 47% of the males and 60% of the females consumed no alcohol. Almost 38% of female inmates received an alcohol abuse diagnosis compared to 43% of males.

Gender Similarities

In addition to the differences reported above, similarities in sample statistics from males to females were also noted. For example, the percentages of inmates with no prior offense were very similar and approached one-half of those surveyed from each gender (42% female and 47% male). Where the primary criminal events occurred was also similar between the genders (34% of females and 35% of males had their crime occur on the "street"). The next most frequently occurring categories were similarly arranged (your home: 12 & 9%; the victim's home 8 and 13%). The least appearing categories were generally similar as well (work: 0/2%; school: 0/1%).

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As another reinforcing set of counter-examples, gender break downs by race were very similar. This included for males versus females about 68/63% African-American and 21/29% Caucasian (these two figures aggregated equal roughly 90 and 92% of their incarcerated populations similarly distributed by race). Along with these numbers, an unusually large and identical 23% of both male and female inmates reported never drinking alcohol. Most males and females did not drink simultaneously to the criminal event (57 and 63% each). A slightly larger percentage of males indicated heavy (more than 12 ounces) simultaneous consumption (16% versus 14% of the female inmates; for all consumption data details corresponding to the listed above and below, see table 31, Appendix F). Heavy 48 hour consumption amounts were also similar (18 and 15% each). Generally small differences were noted in heavy typical weekly consumption (31 and 40%). Nearly 32% of male inmates and 28% of females consumed large quantities within one week of their commitment offense.

Other Racial Differences

From the surveys processed, some similarities and some significant differences were noted in relation to inmate race. This was particularly true for African-American and Caucasian respondents. Sentencing in terms of number of months to serve was remarkably similar.
across categories between black and white inmates (1-24 months: 17 and 16%; 25-60 months: 23 and 21%; 61-120 months: 16 and 15%; more than 120 months: 15 and 9%). The only comparable category not within the overall margin of statistical error was those with a life sentence (29 versus 39%). Typologies of commitment offenses were also very similar between black and white inmates (alcohol involved violent crime - category 01: 13 and 16%; non-alcohol involved violent crime - category 02: both at 21%; alcohol involved non-violent crime - category 03: just beyond ±.05 at 23 and 15%; non-alcohol involved non-violent crime - category 04: 43 and 48%). Some nominal differences were also observed in the previous crimes category of criminal offense typologies (01: 4 and 6%; 02: both 2%; 03: 20 and 28%; 04: 25 and 28%; and no previous offense - category 05: 49 and 36% each). Significantly more African-Americans from this sample had no prior felony crime history previous to their current commitment offense.

African-Americans had much lower incomes when compared to their Caucasian counterparts (e.g., in the $0-5,000 per year category, 39 versus 14%; similarly those with less than $30,000 in earnings totaled 85 and 63%). This statistical trend indicates that the overwhelming majority of inmates had no or low income in the last full year of gainful employment with African-
Americans particularly subject to lower earnings. African-American inmates were typically educated less than Caucasians, but the differences were generally small. More African-Americans had less than a high school education (47 versus 34%) and less had trade school training (16 versus 20%) or any education beyond high school (22 versus 36%). Lower levels of education correlates strongly with the above mentioned lower incomes among all prisoners in general and black inmates in particular.

The alcohol use patterns of inmates broken down by race also produced some pronounced differences (and a few marginal similarities). Substantially more Caucasians were diagnosed as DSM-IV criteria alcohol abusers (55 to 38%). Typical week consumption differences were less profound. Approximately 34% of African-Americans and 22% of Caucasians registered zero alcohol use. Low weekly consumption percentages were nearly even at 21 and 22 (less than 7 ounces). Moderate consumption habits (7-12 ounces) were the same (10% each) and heavy consumers (more than 12 ounces) were more often Caucasian (43 to 35%).

No significant discernible patterns, statistical outliers or anomalies were found among the small number of other race inmates surveyed. The distributions by percentage approached normality in all three cases (i.e.,
the data spread dispersions from the means were not skewed positively of negatively). The small sample numbers of Asians, Hispanics and other minorities also tends to distort any realistic comparison that might be made with the much larger cohorts of black and white inmates (thus the impetus for extended comparisons of blacks and whites only, each with a relatively compatible n).

A few noteworthy patterns did emerge from the small sampling of Native American inmates (n = 12; including one female). For instance, a large number were charged with alcohol related non-violent primary or previous offenses (category 03 = 58%). Nearly 62% were designated as alcohol abusers. About 50% consumed moderately and 50% consumed alcohol heavily in a typical week (0% related light or no consumption). All Native American inmates were regular consumers of alcohol. No other racial group met this criteria (even from the other small n racial designations). This is in line with the literature presented relative to native peoples and drinking (in chapter two). Coincidental to their heavier alcohol usage patterns, Native Americans were also generally more poorly educated (less than high school: 58%) and had much lower family incomes (less than $15,000 per year: 68%). Statistics for Native Americans in the survey compare favorably with demographics available
in the census literature (again presented earlier; see tables 26-32, Appendix F for raw number/percentile distributions relative to race and the inmates surveyed).

**Noted Institutional Differences**

Many demographic descriptors and identifying characteristics were found to also be different across the institution samples in question. For example in age ranges 65% of DCI inmates were less than 30 and 82% less than 50 (compared with 22 and 77% for Angola). DCI's sample is younger overall as is evidenced by 12% of LSP inmates considered to be "elderly" or over 55 while DCI had only one inmate in this category (.06%). Racial distributions were also somewhat dissimilar (LSP versus DCI: 72 and 68% African-American; 16 and 27% Caucasian; 12 and 5% other). In addition 13/17 (or 76%) of out of state inmates were found at Angola while both foreign nationals were housed at DCI (one from Columbia and one from Indonesia). The percentages around marital status were extremely dispersed by institutions. Seventy-three percent of DCI inmates sampled were single (57% LSP). About 13 and 16% respectively were married as well as 14 and 27% divorced.

LSP inmates sampled tended to be much more violent in terms of their commitment offenses (primary: 18% DCI/77% LSP). Highest prior violent offense and first offender numbers were more closely associated (10 and

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Murder sentences represented 48% of LSP inmates, but only 2% at DCI. Rape offenders were .1% of the sample at DCI and 12% at LSP. The total numbers of violent offenders (primary or previous offense) was only about 20% at DCI and nearly 79% at Angola. Only rape offenses as a category were much the same (15 and 13% each).

As an indication of the more typical, less violent by charge inmate housed by design at DCI, 48% of the sample had a possession and/or intent to distribute a schedule II controlled dangerous substance (like cocaine; only 11% at LSP). The inordinately large number of drug offenders also reflects in the difference in most often occurring location of crime (45% on the street for DCI and only 24% for LSP; also 19% of LSP crimes occurred in the victim's home while only 7% of those at DCI did). As a consequence of the larger number of drug related crimes versus violent offenses, differences in sentencing were also statistically extreme. DCI had no life sentenced inmates in the sample versus 69% for Angola (although one inmate in the DCI sample had a life sentence which was recently commuted to a lesser number of years). The number of DCI inmates with less than five years was 65% (only 8% at LSP).

No clear pattern in education level, occupation or income was derived from comparing the LSP and DCI
samples. About 54% of DCI inmates had less than a high school education (42% for LSP) and 23% greater than high school (31% for LSP). General cohort parity for those with a high school diploma was observed (23 and 27%). By far the largest represented category for occupation was in the construction and transportation industries (31 and 37% each). The only remarkable entry with a measurable difference was in the number of factory workers (only 4% at DCI, 17% at LSP). Rough parity was noted in all income ranges except $0-5,000 (35% DCI/19% LSP) and $10-15,000 (15% DCI/23% LSP).

Drinking habits differences were found across institutional lines. Non-drinkers composed 15 and 26% of LSP/DCI inmates while 30 and 33% each did most or all of their drinking at home. Nearly twice as many DCI inmates drank on the street (15 versus 8% reflecting coincidental drug related activity and the large number of drug offenders at DCI). Most inmates in both locations obtained their alcohol in stores (liquor, grocery or convenience, 59 and 63% each). The alcohol abuse diagnoses were also roughly compatible at 47 and 38% respectively.

Other consumption habit results were generally mixed. Simultaneous consumption levels included none (54 and 59%) and more than 12 ounces (25 and 41%). Consumption twenty-four hours prior to the crime included
none (51 and 52%) and greater than twelve ounces (25 and 17%). Forty-eight hour consumption levels showed considerable differences including none (51 and 64%) and heavy (24 and 63%). One week and typical week consumption amounts also showed some serious differences (none 43 and 52%; heavy 40 and 23%; none 55 and 27%; heavy 27 and 36%). Most consumption habits were similar enough to draw no serious differentiating conclusions (cross-institutional results are presented by tables 4-30 in Appendix F).

Results of the MAST

The Brief MAST (by Pokorny, Miller & Kaplan, 1972) was selected as a detection instrument for alcohol abuse. All sample participants completed this short diagnostic screening instrument. According to Selzer (the original designer in 1971), the MAST provides "a consistent, quantifiable, structured interview instrument to detect alcoholism" (p. 89). Selzer (1971) also asserts that the MAST can be "rapidly administered" and is useful with less literate population subjects (p. 89). It can be used to quickly identify what Selzer referred to as "false negatives" and other similar efforts to deceive the alcohol abuse investigator (p. 89). The brief version of the MAST was correlated with the original by Pokorny et al (1977) using the Pearson r resulting in a nearly exact .99/1.0 correlation.
The collective aggregate results of the MAST in terms of percentages of answers yes of no is a marginally useful statistic (i.e., to identify gender, racial or institutional differences as previously presented).

MAST results generally coincided with alcohol consumption habit indexes taken from the demographic data collection form (see Appendix A for form). Significant institutional differences were noted on questions 3-6 and 8-10. LSP percentages for negative answers on the above questions versus those of DCI inmates sampled were as follows:

41/56%, 24/37%, 9/27%, 15/33%, 13/27% and 9/17% each.

This covered the following areas related to alcohol: Alcoholics Anonymous attendance, loss of relationships due to alcohol use, alcohol related trouble at work, familial neglect due to alcohol, seeking of treatment help, hospitalization for alcohol problems and a DWI/DUI charge.

Questions one, two and seven were of nearly equal proportions in terms of yes/no answers. Gender differences were less precipitous on the same question responses (#6: 11 and 26% was the only beyond the margin significant difference noticed). All other responses were similar (e.g., #1 54 versus 59%, #2 35 versus 37%, #9 20 versus 24% and so on). The familial neglect question (#6) produced the most pronounced difference and could be accounted for by gender relationships to
their families of origin (e.g., the females ordinarily stronger familial support instincts). No significant differences in MAST results by racial distinction were found (see table 6, Appendix F for a selection of MAST results raw response numbers).

**Elaboration of Findings**

This section summarizes and synthesizes the previously presented analytical results. The overall conclusion from all analyses of inmate charges for violent crimes and alcohol abuse (based on this sample) resulted in a statistically significant linkage. More specifically however, inmates classified as violent based on their criminal offense were not significantly different than their nonviolent counterparts in terms of the frequency and/or quantity of alcohol usage. Consumption patterns provided no coherent picture of interunit variance in terms of the way alcohol use influences criminal events to turn violent. Twice as many violent offenders received an alcohol abuse diagnosis (42 versus 21% for nonviolent). These raw percentages were substantiated and reinforced by regression of the violent crime typology and alcohol abuse which also demonstrated a significant interactive relationship. These findings showed strong statistical evidence that these two major variables were connected by an independent linear relationship.
Inmates who in general were charged in an alcohol-related crime were however much more likely to have committed a nonviolent offense (in fact nearly two times as likely, 61% nonviolent and alcohol-related offenses to just 39% violent and alcohol-related). No other statistical pattern differences were found in the two offender subgroups which were analyzed (violent and nonviolent criminals). Race, gender, age, income level, occupation and educational attainment were all found to be statistically significant confounding factors and thus controlled for in the final alcohol abuse and violent crime analysis (both as single effect variables, i.e., each control with the primary dependent and independent variables and collectively with all controls inserted). Heavy alcohol consumption was not found to be a significant indicator or predictor of the propensity for criminal events to become violent. It was further determined that neither the overall quantity (light, moderate or heavy consumption) of alcohol, nor the timing of drinking, nor where the drinking occurred, nor where the crime occurred had any statistically significant impact on whether any inmate sampled was convicted of a violent crime.\textsuperscript{12}

It is therefore difficult to relate or associate large alcohol consumption amounts in a cohesive way with violence. The presence or absence of alcohol
coincidental to a criminal event was not shown to create a statistically significant interaction effect that further influenced criminal violence within the scope of this sample. In general, this does not support the findings of other researchers. It must not be overlooked that although alcohol abuse is obviously material to criminal causation, it is in this case one of several possible explanations thereof. Making further and more substantial conclusions from this sample would require further study.

End Notes

1. Considerations for using multiple regression as the primary analysis tool including meeting the basic assumptions of regression. These included the establishment of a linear relationship between the dependent and independent variables, a representative sample from the population, predictions used are restricted to within the range of the values of X and Y originally used to create the regression line and homoscedasticity (homogeneity of variance or the data points spread fairly evenly on either side of the regression line; i.e., no large number of extreme outlier data). Other analyses such as the t-test or analysis of variance would have increased the chance for a type I statistical conclusion error (non-parametric tests such as the chi-square analysis are generally less powerful or able to detect a real effect of the independent variables and thus were not used). In this case ordinary least squares and step-wise multiple regression was used in that the distribution shape was generally normal (or approached normality and can be easily transformed to relieve any observed skewness). Mean skewness of the one-tailed analysis was .35 and kurtosis 1.56 (a relatively flat distribution curve). The experimental power of this research is also enhanced by a large sample, a moderate alpha level (inversely proportional to beta) and regression's sensitivity to identify distributional variance between the dependent and independent variables.

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2. Correlation here accounts for the proportion of variability of the dependent variable caused by each independent variable. This is not enough evidence to assert cause (> .7 = a very high correlation). Regression is the natural follow-on and confirmatory analysis to provide reinforcement to correlation.

3. The regression model equation used was:

\[ Y (\text{predicted}) = a + b_1X_1 + b_2X_2 + \ldots b_6X_6. \]

This model randomizes and accounts for extraneous or excessive variance created by the controls and fixes the direct linear relationship (at some level) between the dependent variable (violent crime) and the primary independent variable (alcohol abuse). When all controls are factored in simultaneously, this isolates the causal effect of the independent variable on the dependent variable. Also see end note two, chapter three for more information on control variables chosen. The multiple regression decision was uniform throughout the analysis process (±.05 for significance).

4. Curiously manslaughter is not considered or reported as a violent crime by the FBI in the UCR. This is possibly accounted for by the large number of negligent, but not necessarily violent deaths produced by automobile and other accidents which sometimes result in a manslaughter conviction.

5. All comparative demographic information for the United States and Louisiana are taken from a combination of sources including Wright (1998, see references), the Federal Bureau of Prisons Quick Facts web site (http://www.bop.gov/fact0598.html) and specifics from individual prison administrations. Wright obtained data from the last available U.S. census (1990) and modified it based on more recent findings. Other web sites of interest included www.doc.state and us/research/graph.htm. Information was rounded off with the following rule for simplicity (.05 and larger to next whole number).

6. This further stratifies to U.S. medium income for whites $38,000 (caucasian inmates $22,500), for African-Americans $22,000 ($7,500 for black inmates) and $24,000 for Hispanics (closer for Latino inmates at $17,500). The P50 income percentages for male versus females in the U.S. were $30,000 and $21,000 respectively compared to $7,500 and $12,500 for male and female inmates (Wright, 1998).
7. These kinds of inmate versus free population differences are to be expected as a rule. Inmates are generally a distinct minority and subculture within the entirety of a nation. The inmate population is often structured very differently in terms of its identifying characteristics, ordinarily related to the level of deviance and antisocial behaviors present in that subpopulation.

8. Generalizability to other Southern or similarly profiled states is easier to establish. For example, Mississippi with 16,000 similar inmates (1,500 females), Alabama with 22,000 inmates (1,400 females) and Georgia with 36,000 inmates (2,300 females). Other states in other geographic regions are also individually compatible in their rate and types of citizens who are incarcerated.

9. This comes from four stratified categories (01-04) which are identified as violent crime with alcohol involvement (01), violent crime with no alcohol involved (02), non-violent crime with alcohol involved (03) and non-violent crime with no alcohol involved (04). As previously mentioned, violent versus non-violent crimes are separated by the UCR (four violent typologies: murder, rape, armed robbery and aggravated assault; all others are considered non-violent by the FBI). Alcohol involvement in the primary offense was indicated by the consumption of three or more ounces within one hour of the criminal event. Also included in the alcohol-related categories (01 and 03) were individuals who by self-report consumed more than 12 ounces of alcohol the day of the commitment crime (this allowed for additional and other possible impairment). This is based on a BAC of greater than .1 for an averaged sized male or female of near ideal body weight (±10% IBW). Small differences in impairment would naturally result from weight, timing in terms of how fast the alcohol was consumed, food intake and other consumption habits. This information is taken from the survey instrument. For prior offenses, categories 01-04 were also assigned based on the UCR and potential impairment by alcohol at the time of the commission of their highest severity crime (based on heavy consumption or greater than 12 ounces per day, every day which indicates regular potential impairment by their typical consumption habits).

10. The differences between LCIW and DCI/LSP were identified collectively and accounted for in the previous section on gender. This section by contrast concentrates on the difference noted between a maximum security (LSP) and a medium security (DCI) facility.
11. B. J. Zung evaluated the MAST in five different publications (see references for listing). He consistently concluded sensitivity for alcohol abuse detection overall accuracy and general specificity to reinforce earlier work done on the MAST and its reliability/validity. He did however indicate that using the MAST alone for assessing lifetime patterns of alcohol abuse versus recent problems would be insufficient as a diagnostic tool. This factor necessitated using alternate means to bolster MAST results (e.g., in this case alcohol consumption and habit data). The primary role of the MAST here is to identify those inmates who should be considered "alcohol abusers" and further those who are attempting to deceive researchers with deceptive self-reports. For determination of alcohol abuse in relationship to a DSM-IV diagnosis, the Brief MAST was used to match given diagnostic parameters from the DSM-IV. The MAST is scored by positive or negative answers to each question which has a point value attached totalling 0-34 points. A total of greater than five points indicates the presence of alcohol abuse (see Appendix A for a display of point value assignments for each corresponding question). Other influencing factors in the yes/no ex-post-facto alcohol abuse diagnosis decision rule included heavy typical consumption, deception used on the MAST questionnaire, vulnerable occupations (e.g., bar tender) or appropriately linked criminal histories (e.g., if the crime occurred in a bar or more than one alcohol-related/multiple DWI/DUI offenses). These factors were inserted as a verification measure, primarily if MAST results were suspicious or inconclusive (see discussion of MAST as an appropriate alcohol screening instrument in chapters two, three and four).

12. Six surveys were eliminated for obviously bogus item answers such as "666" or "007" and/or extreme inconsistencies in primary demographic information when their responses were compared to the case record (e.g., indicating that their commitment charge was the federal offense "espionage"). A random (unscientific) survey by the investigator and research assistants of inmates who refused to participate identified the following reasons for their refusal: reluctance to provide a signature on the consent form, general anger at the legal system and their own claims of innocence, heavy drug users who never drank alcohol (thus intimating that in their view, this research is irrelevant, despite explanation to the contrary) and specific distrust of prison officials/administration and generally of authority figures (these responses are given in order of prominence by number of inmates who made them). Survey refusal...
Participants included 142 males and 3 females. They also included 140 from LSP, 12 from DCI and 3 from LCIW. The estimated demographic and behavioral profile of these non-participating inmates indicated that most had longer term sentences, more violent crimes, were younger, were more predisposed to mental illness (especially paranoia) and more prone to in-prison violence and disciplinary problems. They also as a rule tended to be very vocal about corruption in Louisiana's legal/correctional system and primarily from this state. These results were not presented in the chapter text because the surveys were unscientific and reported as hearsay and anecdotal evidence only (taken from angry inmate self-reports, classification and security officer comments and other unsolicited words from staff such as mental health personnel).
CONCLUSION

This chapter presents the study's conclusions in five major sections: a summary discussion and overview, extending these findings to build on previous research, theoretical implications, study limitations and future directions. The conceptual gaps in the literature and ambiguities in research in this area mentioned by Myers (1984) and Parker & Rebhun (1995) are also addressed (see chapter one). In most cases the results from this study did not compare favorably to conclusions reported in other previously published research (in a broader sense, some mixed comparison and positively correlated results were obtained).

Summary Discussion and Overview

Alcohol abuse and being charged with a violent crime were generally found to have a consistent and statistically significant relationship among this study's sample of inmates. The first order relationship between alcohol abuse and a violent criminal charge was established (given this sample) and confirmed by second order relationships (provided by the insertion of six control variables). Other related issues beyond the inmate meeting the diagnostic criteria for alcohol abuse such as frequency, quantity and timing of drinking showed no statistically significant impact on a criminal charge
being for a violent crime. How much alcohol use (as opposed to the previously established as connected "alcohol abuse") actually contributes to violent crime in terms of a linear relationship remains undetermined using these data structures. Table four below shows if a statistically significant interaction impact was established between the variables given this study's sample data (i.e., statistically significant inter-relatedness between the dependent and independent variable).

Table 4
Significance of Relationships Between Alcohol & Violence

<table>
<thead>
<tr>
<th>Alcohol Abuse Factors</th>
<th>Violent Crime</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Frequency</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Time of Consumption</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Quantity</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

Controls added to violent crime = gender, age, race, occupation, income and education.

Extension of Findings

The research produced by this study generally failed to confirm the preliminary conclusions of the previously referred to articles and other publications. This cross-comparison was achieved by replicating their population intervals and interpreting data packets in a similar fashion. For example Myers (1984) reported
that the literature consistently found a close association between alcohol (usage) and violent crime.¹ By targeting a similar population to a number of research reports published in the recent past, the previous findings were built upon for comparison. Included are comparisons to and extensions of Shupe (1954), Myers (1984), Gary (1986), Collins (1989), Forest & Gordon (1990), Pernanen (1991), Roth (1994), Anderson (1995), the Bureau of Justice Statistics (BJS, 1995), Singer & Husey (1995) and the BJS (1998).

Many of the more dated results produced by earlier researchers did not compare favorably to this study despite some methodological construct and design component similarities. For example, Shupe (1954) asserted that 64% of the violent offenders he surveyed were "severely impaired" at the time of commitment offense. The category of subjects in this research corresponding to severely impaired (heavy simultaneous consumption) included only 13% of the violent inmates surveyed. Also for initial comparative purposes, Myers (1984) in a foreign study (undertaken in Scotland) reported both 66% of the violent offenders he surveyed as well as 86% of the individuals convicted of murder under the influence of alcohol at the time of the commitment offense. This survey's results found only
39% of the violent offenders overall and 36% of the murderers similarly under the influence. As a lead racial indicator, Gary (1986) found 60% of the African-Americans in his study who were convicted of homicide (first or second degree) were also under the simultaneous influence of alcohol. This study's percentage in the same classification was only 34.

Finally, in reporting older studies, Collins (1989) submitted that 50% of the convicted rapists he surveyed had a BAC of greater than .1 (over the legal limit in most states) when they were arrested coincident to the crime (not many hours later). This is an indication of moderate to heavy simultaneous alcohol consumption for those with body weights within normal ranges. This study identified only 32% (of rapists) in that range.

These disparities in findings suggested on some level that the samples from the majority of these older studies reported generally spurious correlations (i.e., based on anecdotal type evidence rather than scientific linkage). It is difficult to reconcile debatable and perhaps artificially high correlations established between these two primary variables based on qualitatively oriented research or outmoded biserial analyses. The results from this study which are derived from a random sample appear to be more reliable.
Comparison With Contemporary Studies

Studies from the last decade beginning with Forest & Gordon (1990) continued to find high percentages of violent offenders under the influence of alcohol (in that particular case 55% of all homicide offenders). This major pattern was contradicted by this study (36% of first degree and 38% of second degree murderers). Pernanen's 1991 assessment of rapist under the influence of alcohol while committing their crime produced only 24% in a very large survey compared to 56% in this study's sample. In a broader context, Roth (1994) indicated that as many as 50% of all felony arrests involved alcohol's influence in some capacity (only 37% in this study's findings).

For more specific populations by ethnicity, such as Native American inmates, the disparity in findings continues. Anderson (1995) related that 80% of Native American homicides were alcohol-related. This study's admittedly small sample of Native Americans convicted of homicide found the rate of alcohol use only 50%. Other small sample surveys without an ethnic specific focus which were recently published were less contradictory with the results provided by this survey (i.e., the results were more mixed than suggesting extreme differences). Among these are Singer & Husey
(1995) with alcohol involvement in 49% of murders (versus approximately 37% in this study) and a 1997 DOJ survey which concluded that 36% of all adult offenders were drinking in some amount at the time of arrest (as were an identical 37% in this study).

The largest amount of data in this area (in aggregate form) was reported by the BJS (1995). Many of these results showed different conclusions and identified patterns than this research. As previously stated, the demographics of the BJS study of all state and federal prisoners did not in each case match this sample well (indicating only that Louisiana's general and inmate populations are both atypical and difficult to attach generalizable conclusions to from the rest of the nation). For example, the BJS survey sampled 46% African-Americans as opposed to 68% in this study (as well as 46 versus 23% Caucasians). The percentages of Hispanics and other racial classifications were however identical at 17 and 2% each.

Marital status numbers were very comparable to this sample (18 and 16% married; 19 and 21% divorced; 63% each single). Age brackets for the less than 30 and 31-60 categories were essentially reversed, comparing the two studies results. The BJS reported 68% less than 30 and 30% 31-60, while this research presented 26 and
71% respectively. Educational attainment was somewhat dissimilar. BJS surveyed 68% less than high school, 12% completed high school and 12% with some college (this study 76% less than high school, 26% completed high school and 8% some college). Aliens made up 4% of the BJS sample and only .05% in this research (47% from Mexico in the national results versus 0% herein). Louisiana inmates sampled income ranges compared reasonably favorably to the BJS: less than $5,000/year BJS 32 and this sample 29%; $5-10,000 21 and 12%; $10-15,000 17 and 20%; $15-25,000 15 and 18%; greater than $25,000 15 and 21% each.

Sentencing cohort comparisons were mixed. The short-term offender category (less than 24 months) was 10% for the BJS and 21% for this research. The 25-60 month range was close at 24 and 22%. Both 61-120 and greater than 120 months were essentially different (23 and 14%; 34 and 13% each). The largest categorical difference was in life sentences (30% for this study's results reflects Louisiana's relatively harsh sentencing policies as compared to most of the remainder of the nation). BJS inmates sampled with life sentences made up only 9%. The median number of months actually served in prison favored the BJS inmates (200 versus about 95 in the Louisiana sample). Violent criminal offenders
by category in both samples were reasonably similar. Types of criminal offenses by percentage of those surveyed included (for the BJS results versus this study): 32 and 41% violent crimes overall, 12 and 21% murder convictions, 15 and 12% armed robbery convictions, 8 and 3% aggravated assault offenses and 8 and 6% rapists.

The final study considered for general comparative purposes was the BJS annual report on prisoner substance abuse for the year 1998. Alcohol consumption information related to violent crimes surveyed as aggregate figures yielded some marginal similarities to this research. Fifty-percent of all BJS survey inmates were under the influence of alcohol at the time of commitment offense (as reported earlier, 37% in this study). The comparative percentages for violent criminals alone were 21 and 39% respectively indicating that this study's sample of violent criminals was more substantially influenced by alcohol usage. These numbers break down to 52 and 36% for murderers, 42 versus 56% for rapists, 52 versus 25% for armed robbers and 50 versus 83% for aggravated assault (first number is BJS). Daily alcohol consumption percentages for the BJS sample were 29% for males and 19% for females (27 and 28% for this work). Lastly, daily consumption by race for the BJS included 23% of
African-Americans, 34% of Caucasians and 25% of Hispanics (much less at 10, 14 and 6% for this study).

The BJS (1998) estimated that 36% of the population of 2 million inmates that their survey inferred to was drinking at the time of the commitment offense (58% total in this study). This included 19% of the armed robbers, 21% of those with aggravated assault charges and 2/3 of all (not just UCR's four typologies) those involved in what the study refers to as interpersonal violence (25, 83 and an estimated 55% in this study). High BAC/simultaneous consumption was found in about 28% of their violent and 27% of their nonviolent offenders (only 9 and 16% in this study). No other significant percentile differences between the BJS inmate substance abuse results and this survey were observed.

Overall, the results from this study compared reasonably well with the majority of all previously reported literature (in general) with many specific categorical differences noted (some of which were precipitous and identified as such). The importance of the percentile figures given above is in direct proportion to the large number of regular drinkers of alcohol in the United States (98 million or 87% of men and 79% of women according to Anderson, 1995) in terms of potentiality of subsequent violent events or simply
a propensity thereof. This potential reality is bolstered by approximately 3% of all Americans who Anderson (1995) characterized as heavy drinkers of alcohol and 20% of 12-17 year olds demonstrated to be so-called problem drinkers (in the later case, an age group already, at least in part predisposed to acts of impulsivity and in many cases violence). These results and the conclusions of this research can therefore be considered a natural and more concurrent extension of a number of previously reported conclusions in this important area of alcohol abuse and violent crime.

Theoretical Implications

Another of the primary objectives of this research was to interpret its overall results in light of and through the framework of two major alcohol and crime co-occurrence theories: the situational context of drinking and crime and disinhibition produced by drinking. This research explored situational aspects of drinking relative to the incidence and prevalence of violent crime. Situational constraints such as the location where the criminal offense occurred, where the offender ordinarily drinks, where they normally obtain their alcohol, drinking quantities and other consumption patterns (measured precisely around the criminal event) were searched for patterns. In addition,
certain prerequisite demographic factors were researched as a part of the atmospherics situationally necessary for drinking/violent crime interaction in a logical cross-analysis (e.g., age ranges and percentages of individuals who drink in larger quantities).

The majority of the violent offenders surveyed herein drank the majority of their alcoholic beverages in their own home (29%). The next largest percentage drank in a bar (21%) for a total of 50% drinking in these two locations. In that only 17% of the overall number of crimes surveyed occurred in these two locations, this particular aspect of drinking, crime and location would appear to be in general refuted. Nearly 30% of the crimes committed by those surveyed occurred in an unspecified "street" location which compared to less than 10% who drank in the same place regularly. Likewise about 59% ordinarily obtained their alcohol in a retail liquor sales establishment such as a package liquor, convenience or grocery stores while less than 7% of the primary criminal offenses occurred in corresponding locations. About 14% obtained and 25% drank strictly in the context of bars or social clubs while only about 27% of the crimes occurred in that same venue. It would appear from this sample at least, that where a felony offender drinks or obtains his or
her alcohol has little impact on criminal causation in terms of a chain of linkable events (and even less impact on that crime turning violent).

A more complicated and less preliminary quantitative analysis of consumption figures among this sample was presented in detail in the previous chapter. It was revealed that the overall number of inmates who were drinking simultaneous to their respective criminal events was conspicuously large (although not a simple majority at 42%). Unlike the above listed examples, these permutations at least in part confirm the validity of the situational context of alcohol and crime co-occurrence relationship (that is spontaneous action caused at least in part by alcohol versus a general predispositional propensity towards action caused for the most part by premeditation). This is often a considerable factor in terms of mitigating and extenuating circumstances which are used to determine criminal code severity (seriousness of a crime and the subsequent state response and ultimately punishment). The fact of the theoretical notion that the concurrent presence of drinking influences the opportunity structure for a crime to occur and as previously presented, to turn violent is in general indeterminable from this sample's results (which is an inconclusive result).
This conclusion is also a key indicator of the disinhibition effect of drinking alcohol which in turn creates attitudes and false beliefs (bravado) which can in many cases encourage criminal activity. This factor is most appropriately applied to younger offenders who are already as a rule prone to impulsivity and risk taking behaviors (in this sample, 26% of the inmates being less than 30 years old). The total number of alcohol-related crimes (157 or 37%) and the number of alcohol-related violent crimes (61 or 14%) on the surface both further indicate the removal of certain otherwise present inhibitions which may have presented or at least postponed the criminality from occurring. An additional 30% of the previous offenses also involved a pattern of alcohol abuse around criminal events. Heavy daily and weekly alcohol consumption patterns (about 38% of all inmates sampled) corresponds very closely to the number/percentage of alcohol related crimes mentioned above (showing a potential linkage in terms of removal of restrictions or ordinary restraint, especially where impulsive, not preconceived out violence is concerned).¹

Control variables such as gender, race and education level were demonstrated as related to alcohol abuse and violent crime, but revealed no predisposition towards uninhibited behaviors caused by alcohol's presence in

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the relatable chain of events. For example, even though race taken as a whole category related to alcohol abuse and violent crime was used as an analytical control, individual races in the sample were no more or less predisposed to disinhibition/impulsivity than the other racial classifications. Neither were the poorly versus the highly educated nor the higher versus lower income earners etc.

It would also however appear that the level of impulsivity was increased among both the occasional and chronic drinking inmates when age, gender, education and race are factored in creating a consumption pattern difference (rather than a demographic distinction). In all cases, alcohol was still considered "a factor" in the causal chain in each of the surveyed 180 criminal events in which it was present. This truth remains even though many of these 180 inmates consumed alcohol moderately or less or were assigned to the no alcohol abuse diagnostic category overall. Alcohol still played some disinhibition role in the crime that took place which eventuated in each inmate serving time in prison.

Generally speaking on behalf of this study's sample or any generalizability beyond its population parameters, the situational context theory of alcohol and violent crime co-occurrence was not supported, while
disinhibition theory was. The numerous and varied criminal event and individual habit situational differences explained in chapter three and reported in tabular form in Appendix F made little measurable difference in a violent (or even nonviolent) crime happening or not. Alcohol use (apparently in almost any amount) did make any user significantly more predisposed to commit a crime and/or a coincidental act of violence. A number of alternative factors and explanatory effects should also be supposed here as these two theories are less than exact in terms of causal explanations. Based on this research and the majority of the heretofore presented literature's primarily external conclusions, alcohol almost certainly does however play some role in any crime in which it is present. All other further suppositions should be should be interpreted in responsible context in light of this premise.

**Policy Applications**

The results from this research can be cross-applied to the realm of alcohol-related policy, especially in and around criminological issues. Government, school and spiritual leaders among others could do more to counter alcohol abuse's affects and protect public safety and health in this critical area. With more information,
education and treatment, individual citizens could also contribute more to reducing the toll which alcohol abuse exacts on American life. In an open society, making alcohol illegal as happened during the failed prohibition experiment, is not an acceptable option. Some prudent measures short of absolute illegality are certainly warranted and could be enacted with reasonably little resistance.

As the most widely used drug which has been a part of human culture for millennia and European originated societies for centuries, alcohol should be treated as dangerous by those with any kind of an addictive personality. Unfortunately these individual personality types are a significant fraction of the American population (Bacon, 1963). Positively identifying these individuals could be accomplished with simple and relatively inexpensive standardized psychological (personality inventory) tests administered in the school system (such as the Minnesota Multiphasic Personality Inventory or MMPI as it is known by). Also in accordance with this measure, younger adults as well as children and all convicted and/or incarcerated felons/misdemeanor offenders should be forewarned about the potential dangers of alcohol in a public information and disclosure campaign (mailings and advertisements which have
heretofore been limited to anti-drug or smoking efforts). It may also emphasize (or even necessitate) the need for more involvement by publicly funded law enforcement, control and research agencies like the Food and Drug Administration (FDA) for possible regulation of alcohol as a controllable drug as has been suggested for cigarettes. The Bureau of Alcohol, Tobacco and Firearms (BATF), local Alcoholic Beverage Control (ABC) boards, the National Institutes for Alcohol Abuse or university based research consortiums could also support a conventional public awareness campaign. Like-minded private interest organizations such as Mothers or Students Against Drunk Driving (MADD/SADD) could be recruited and mobilized to help in carefully manipulating tradition and attitudes which enable excessive alcohol consumption and abuse without policy or legal mandates being enforced on an unwilling public. In that according to Bacon (1963), alcohol is related to many more harmful events than just violent crime, its abuse should certainly receive additional public attention as well as funding for research, treatment and education (perhaps funded by new alcohol consumption taxes which would also discourage and drive down usage to some degree)."* These findings have shown that the two major variables in question are related and that there is
a correspondence between the intoxicating effects of alcohol and criminals charged with violent crime which is (statistically speaking) highly significant. This fact should be therefore coupled with what Joseph Califano, President of the Columbia University based National Center on Addiction and Substance Abuse reported to the White House Office of National Drug Control Policy (and its Czar, retired General Barry McCaffery) blaming substance related problems (including alcohol abuse) for tripling this country's inmate population. In short, this problem has received altogether too little attention when it is considered versus its scope.

Study Limitations, Reliability and Validity of Results

This study has several notable limitations, including its reduced generalizability beyond inmates (certainly beyond criminal offenders). The external validity of this research is also somewhat limited in terms of national or international inmate comparisons. Louisiana's atypical population naturally produces a majority of atypical inmates in its prisons compared to foreign, nationwide aggregations or federally held inmates. This study also (as with many experiments in the social sciences) relied on the cooperation of inmates who are in many cases notoriously uncooperative. Inmate treatment (be it good, fair or poor) in the
individual institutions where there are held (LCIW versus DCI versus LSP in various combinations) probably impacted the level and extent of cooperation received for this field research. This factor may have potentially influenced the overall reliability of subject self-reports.

Access to Louisiana's 78 male and 1 female death row inmates was denied which reduced one sentence stratification typology from the analysis sample. A small number of inmates were also unavailable for consideration who were concurrently locked down for violence, other unspecified disciplinary infractions or off site in the hospital or court etc. (perhaps as many as 200 at the time of the sample, which were accounted for in the sampling procedure). Reviews of six topical areas from the survey forms produced an estimated accuracy of 85% with most of the remaining discrepancies in the reporting of previous offenses. Perhaps this deficit was more due to memory lapses rather than deliberate deception (especially with those who have been incarcerated for many years and are poorly educated/less literate). When this answer category is removed, inmate answer accuracy for basic demographic questions becomes nearly 100% (see Appendix A for survey form and which questions were verified). This adds to
the potential validity of all inmate self-reported survey answers (truthfulness is not transferrable, but credibility lacking in one portion would certainly be an indicator of problems with subsequent testimony). In this fashion, triangulation of data collection methods with self-reported surveys, record information reviews and a recognized as reliable standardized questionnaire helped to eliminate epistemological concerns which were initially raised.

Problems in the area of internal validity such as testing, instrumentation, reactive arrangement of data collection methods, selection, instrumentation, history effects, gender/ethnic/ability level biases and statistical regression errors were all eliminated by careful choices in terms of data collection (e.g., reliability and validity of the MAST and analysis tools chosen; for more explanation, see reliability and validity section in chapter three). Other discrepant findings were reported previously in the analysis of the MAST results, step comparisons with preconclusions/analytical assumptions and by noncorrelated alcohol consumption claims. In all cases, extreme caution should be exerted when attempting to extrapolate the results of this research beyond its stated statistical scope.
Areas for Further Study and Future Directions

Conclusions and results from this study could be replicated in several obvious ways and varied to include additional questions raised herein. For example, a similar study of federal prison populations, juvenile facilities, other state penitentiaries or foreign jails or prisons could be separately conducted. County or parish level jails could be examined either individually or in some clustering arrangement using the same design and analysis strategies. Any number of these possible study variations could then be compared and contrasted with this research or combined in a meta-analysis of several or all calculated permutations. In prison violence (both criminal actions and less serious disciplinary violations for fighting etc.) could also be targeted in relation to alcohol abusers having a predisposition to remain violent, even after they are incarcerated.

A more longitudinal approach could be used as a further variation of this study's basic research. Single crimes could be extracted from this study and analyzed individually in comparison to other reporting areas as mentioned above (e.g., violence expressed by the crime of rape). Enlarging the violence category of comparison beyond the parameters of the UCR four to
include all crimes of interpersonal violence is an additional option (e.g., simple assaults, sex offenses less than rape, all aggravated circumstance or weapon usage crimes etc.). Variables could also be slightly or dramatically altered to produce new research avenues (e.g., including suicide, vehicular homicide or DWI/DUI related manslaughter as "violence" versus the alcohol variable). A detailed case study of 3-5 inmates from this study's sample could be used to flesh out the statistical detail herein and combine qualitative and quantitative research methods (e.g., an inmate at DCI who volunteered that his crime occurred in a bar where he killed a man while drunk. The inmate had no previous criminal record). Combining or comparing and contrasting this study to a similarly conducted trial on drug-related crime and violence would open up a large avenue of approach to crime and all substance abuse (i.e., comparing individual drugs used to alcohol usage etc.). Finally this study's literature review could be used as seed research in compiling a separate historical piece on the history of alcohol abuse and crime.

End Notes

1. Close association, as far as this analysis is concerned becomes a highly correlated association when gender, age, race, earned income and educational attainment are accounted for and factored in as controls.

2. As previously mentioned, despite the UCR classifications of four reportable violent crimes, it
could be conclusively argued that other forms of interpersonal violence such as simple assaults are more often than not "violent." If this is done in the case of this research, the percentage of crime which would be violent would rise from about 41 to 52% (including such obviously violent crimes as first degree robbery, manslaughter and lesser sexual assaults). This would change the entire analysis structure. For example this study contained about 3% who were convicted of manslaughter related to DWI/DUI (in many cases a conjunctive third or fourth offense or more). This is a less direct form of violence but nonetheless a violent act.

3. It should be noted and accounted for that around 23% did not drink alcohol at all and thus these results by percentage may be somewhat skewed. The large number of non-drinkers for a primarily South Louisiana sample in terms of drinking culture identification is a surprising result.

4. Seldon Bacon, an alcohol and crime/delinquency pioneer assessed alcohol involvement in the central nervous system changes, allowable or excusable deviations which could harm others like accidents, inept youthful indiscretions, foreign behaviors, temporary desocialization and asocial behavior. In 1963 Bacon perhaps made the most persuasive case for more to be done by multifaceted coalitions in this country in the area of addressing alcohol abuse.

5. The report of Joseph Califano (a former United States secretary of the Department of Health and Human Services, called Health, Education and Welfare at the time) was published by the Associated Press wire service on 1-9-98 and widely reported in the nation's newspapers, other print media and on television news programs.

6. For example the over-representation of African-Americans which are a much larger percentage of both the inmate and general populations of Louisiana. Another apparently over-represented demographic is the excessive number of inmates from the greater New Orleans area of Louisiana. This is accounted for by the largest percentage of the state's criminal and overall populations originating from that region.

7. For example for multiple regression to be face valid, somewhere between 40 and 60% of the inmate sample should have alcohol abuse diagnosis yes. This is in order to achieve an approximated 60/40 split when using
dichotomous, nominal variables in conjunction with and compared to other ordinal scale variables (in this case alcohol abuse diagnosed inmates = 40-41%).

8. Other incomplete or negative findings: a remarkable number of inmates completed trade school and were working in that skill area when their crime took place (77 or 18% overall). This is a refutation of the usual claim that advances in education and job skill training always equate to reductions in crime (including alcohol-related crimes). College educated numbers are however small and do more (at least by surface or superficial analysis) to confirm rather than refute the above mentioned conventional wisdom (only 8% in this sample with some college, less than 4% with a four year degree or more). Other statistical outliers which are fundamentally in line with more traditional views of prisoners included the number of poor inmates (less than $10,000, 175 or 41%), the number of poorly educated inmates (less than 9 years, 92 or 22%) and the number of first time offenders (197 or 46%). Perhaps the latter is an indication of the number of crimes represented in the sample which manifest a more abrupt onset of criminal activity (especially in the case of those with single violent episodic offenses like second degree murder of a family member or close acquaintance producing a corresponding automatic life sentence in Louisiana).
REFERENCES


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Head versus King. (1979). United States Federal Court for the Middle District of Louisiana


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APPENDIX A

BIOGRAPHICAL AND CONSUMPTION SURVEY DATA FORM

Case Number __________

Gender: _____ Age: _____ Marital Status: M S D

Home of Record: ____________________________________________

Race: African-American Caucasian Native American
       Asian American Hispanic OTHER

Commitment Offense(s): (3 highest)*
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Criminal History: (5 most recent, list chronologically)*
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Length of Sentence in Months: 1-24 25-60 61-120
>120 life death penalty*

Occupation: _____________________________________________________

Approximate Income in Dollars for Last Year of Work:
0-5,000 5,001-10,000 10,001-15,000 15,001-20,000
20,001-25,000 25,001-30,000 30,001-35,000
35,001-40,000 >40,000
Education Level:*
0-4  5-7  8-9  10-11  12 or High School
Trade School  Associates Degree  Bachelors Degree
Graduate or Professional Degree

Self-reported Alcohol Consumption Rates in Ounces:
Simultaneous to Commitment Offense = ____________
Within 24 Hours of Committing Offense = ________
Within 48 Hours of Committing Offense = ________
Within One Week of Commitment Offense = ________
During a Typical Week = _________________________

Where did your crime occur (primary offense)?*
your home  victim's home  another house  bar  store
school  work place  car  street  another place

In what location do you normally drink?
your home  someone else's home  store  bar
school  work place  automobile  other location/street

Where do you obtain your alcohol?
liquor store  convenience store  grocery store
bar  a friend  a relative  at home  another place

Definitions:
One Ounce = 1 Beer, 1 Mixed Drink or 1 Glass of Wine
40 Ounce Beer = 6 Ounces of Alcohol
5th of Wine = 8 Ounces of Alcohol
1 Shot of "Hard Liquor" = 2 Ounces of Alcohol

*Indicates need for confirmatory record check.
APPENDIX B
THE BRIEF MAST

Questions:

1. Do you feel you are a normal drinker? Yes(0) No(2)

2. Do friends and relatives think you are a normal drinker? Yes(0) No(2)

3. Have you ever attended a meeting of Alcoholics Anonymous (AA)? Yes(5) No(0)

4. Have you ever lost friends or girlfriends/boyfriends because of drinking? Yes(2) No(0)

5. Have you ever gotten into trouble at work because of drinking? Yes(2) No(0)

6. Have you ever neglected your obligations, your family, or your work for 2 or more days in a row because you were drinking? Yes(2) No(0)

7. Have you ever had delirium tremens (DTs), severe shaking, heard voices or seen things that weren't there after heavy drinking? Yes(2) No(0)

8. Have you ever gone to anyone for help about your drinking? Yes(5) No(0)

9. Have you ever been in a hospital because of drinking? Yes(5) No(0)

10. Have you ever been arrested for drunk driving or driving after drinking? Yes(2) No(0)
APPENDIX C

INFORMED CONSENT DOCUMENT AND ASSENT FORM FORMINORS

1. Study Title: Alcohol Abuse and Violent Crime: A Contemporary Examination and Comparison of Violent and Nonviolent Adult Male and Female Criminal Offenders

2. Performance Sites: Louisiana State Penitentiary Angola, Louisiana
   Dixon Correctional Institute Jackson, Louisiana
   Louisiana Correctional Institute for Women St. Gabriel, Louisiana

3. Investigator: The following individual is the primary researcher and is available for questions, M-F 8:30 a.m. - 4:30 p.m.
   Randy Haley, MSW, LCSW-BAS 388-5875, School of Social Work

4. Purpose of the Study: The purpose of this research was to determine whether or not there is a link between alcohol abuse and violent criminal charges.

5. Subject Inclusion: Male and female individual offenders between the ages of 18 and 90 who are incarcerated for various criminal offenses in one of the three facilities listed above (in #2).

6. Number of Subjects: 424
7. Study Procedures: Subjects spent approximately 30 minutes completing two questionnaires, one which captures biographical, demographic and alcohol quantity consumption information; and the "Brief MAST" which is a ten-item survey which was used to make a clinical diagnosis of alcohol abuse.

8. Benefits: This study may yield important information relative to the role of alcohol abuse in violent crime. Subjects were not paid for participation.

9. Risks: The only study risk is the potential release of personal information from either questionnaire. However, no subject names were used on any document. A case number was assigned to paper forms. Collected forms will be kept in a secure filling cabinet in the researcher's office.

10. Right to Refuse: Subjects could choose to not participate or to withdraw from the study at any time without penalty or loss of any benefit to which they might otherwise be entitled.

11. Privacy: Results of the study may be published, but no names or other personally identifying information relative to the subjects will be included in any subsequent publication. Subject identity will remain confidential unless disclosure is required by law.
SUBJECT CONSENT OR ASSENT FORM

This study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigator. If I have questions about subject's rights or other concerns, I can contact Charles E. Graham, Institutional Review Board, (225) 388-1492. I agree to participate in the study described above and acknowledge the investigator's obligation to provide me with a signed copy of this consent form.

Signature of Subject Date Age if Less Than 18

The study subject has indicated to me that he/she is unable to read. I certify that I have read this consent form to the subject and explained that by completing the signature line above, subject has agreed to participate.

Signature of Reader Date

Inmate Consent for Reading of Their Case Record

This study has been discussed with me and all my questions have been answered. I may direct additional questions or concerns about subject rights to Charles E. Graham, Institutional Review Board, (225) 388-1492. I agree to allow researchers to read, but not copy my case record as needed as long as anonymity is guaranteed.

Inmate's Signature Date

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APPENDIX D

DATA CODING

Study variables were coded as is described below:

a. Criminal Typology

01 = violent criminals with alcohol-related crimes
02 = violent criminals with non-alcohol-related crimes
03 = nonviolent criminals with alcohol-related crimes
04 = nonviolent criminals with non-alcohol-related crimes
05 = no prior offense (for criminal history)

Violent crimes were restricted to the four UCR reported categories: murder, armed robbery, rape & aggravated assault (for statistical purposes, violent criminals = 0, all others = 1).

b. Control Variables

race = white/Caucasian (01),
African American (02),
Asian (03) *for statistical purposes, African-Americans = 0, all others = 1
Hispanic (04)
Native American (05)
Other (06)

gender = male (01),
female (02)
marital status = married (01),
single (02),
divorced (03)

age = (cohorts) <16 (01), 16-17 (02), 18-21 (03),
22-25 (04), 26-30 (05), 31-35 (06), 36-40 (07),
41-50 (08), 51-55 (09), 56-60 (10), >60 (11)

income = 0-$5,000 (01),
$5,001-10,000 (02),
$10,001-15,000 (03),
$15,001-20,000 (04),
$20,001-25,000 (05),
$25,001-30,000 (06),
$30,001-35,000 (07),
$35,001-40,000 (08),
& >$40,000 (09).

See method, chapter two, end note #1 for justification of choice of control variable.

These numerical brackets were taken from the categorical data found in the 1990 decennial U.S. Census (Bureau).
occupation" = service industry (01)
   food service (02)
   laborer (03)
   construction worker (04)
   machine operator (05)
   fisherman (06)
   farmer (07)
   factory worker (08)
   professional (09)
   other/unemployed (10)

'This registers the last full-time employment for a
full work year. A full work year was described as six
or more months contiguous service in a calendar 12 months
in which 30 or more hours per week were on the job with
pay. The employment types were also drawn from census
related categories.

educational attainment = in number of years includes:
0-4 (01); 5-7 (02); 8-9
(03); 10-11 (04); 12 or
high school diploma or
equivalent (05); trade
school, vocational or
technical training (06)
two years college or an
associates degree (07);
four years college or a
bachelor's degree (08);
masters, other graduate,
doctorate or professional
degree (09); These
categories were chosen for
typical educational
attainment which emphasizes
lower levels of achievement
(a more likely profile for
inmate populations).

Length of sentence was coded in months as follows: 1-
24, 25-60, 61-120, >120 or life (01-05).

Location of crime was coded as follows: assailant's
home, victim's home, another house, bar, store, school,
work place, automobile, street, another place (01-10).
Typical location of drinking was coded as follows: assailant's home, someone else's home, store, bar, school, work place, automobile, other location/street (01-08).

Typical location where alcohol is obtained was coded as follows: liquor store, convenience store, grocery store, bar, a friend, a relative, at home, another place (01-09).

c. Alcohol consumption rates were coded in ounces per day: 0, 1-2, 3-6, 7-12 or >12 (01-05). The frequency and/or time of consumption was labeled appropriate in the text and tables (as is). Alcohol abuse diagnostics were columnar yes/no (01/02).
APPENDIX E

RECORD INFORMATION IN CASE JACKET

(1) The following information is found on the left side of the offender's case record and is filled from top to bottom:

(a) Current Master Prison Record and corresponding Time Computation Worksheet.
(b) Approved form for Educational Good Time credit.
(c) Good Time Rate Option and Approval Form.
(d) Conduct Report
(e) Status Profile.
(f) Jail Credit Letter/Court Papers/Sentence Documentation. Documents pertaining to each conviction shall be kept together and filled with latest conviction on top.
(g) DF-49 and Clemency certificate.
(h) Current State Police Rap Sheet and FBI Rap Sheet, if available.
(i) Presentence or Postsentence investigations.
(j) Classification Admission Summary and A & I sheet
(k) Parole related material (warrants, revocation vote sheets/letters and release certificates with most recent on top.
(l) Crime Victimc Notification requests.
(m) Detainers/Warrants/NCIC flashes - all official related material.
(n) Voided copies of Master Prison record, with the most recent dated copy on top.
(o) Fingerprint card.
(p) Photograph.

(2) the following information shall be filled on the right side in order from top to bottom:

(a) Inmate Location Sheet.
(b) Request for participation in educational good time programs.
(c) Correspondence, incident reports, disciplinary reports, disciplinary reports, pre-paroles, institutional release processing documents, clemency related materials, lawsuits, inmate master telephone list, memos, etc. in chronological order with the newest material on top.
Taken from Louisiana department of Public safety & Corrections regulation no. B-03-001, 15 April, 1997, Page Four. Access to the record information is limited by law and in this case granted under the proviso that the Secretary [of corrections] or his designated representative, [in this case, the institution's warden] may approve the reading (but not the copying) of information to the following:

(3) Approved researchers who have guaranteed in writing anonymity of all subjects (1-2 N/A, Dept. reg. B-03-004, February 1, 1993, Page 3).

The inmate's medical record, some classification information and some educational records are not available to researchers.
APPENDIX F

TABULAR PRESENTATION OF PRIMARY RESULTS RAW DATA

Table 5
Raw Sample Data of Racial Distributions

<table>
<thead>
<tr>
<th>Race</th>
<th>Male</th>
<th>Female</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>42</td>
<td>291</td>
</tr>
<tr>
<td>2</td>
<td>77</td>
<td>19</td>
<td>96</td>
</tr>
<tr>
<td>3</td>
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<td>4</td>
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<td>1</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

n = 359 65 424

1 = African-American 4 = Hispanic
2 = Caucasian         5 = Native American
3 = Asian-American   6 = Other Race

Table 6
Raw Sample Data MAST Results by Institution (& Gender)

<table>
<thead>
<tr>
<th>MAST</th>
<th>LSP</th>
<th>DCI</th>
<th>LCIW</th>
<th>ALL</th>
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<tbody>
<tr>
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<td>Y/N</td>
<td>Y/N</td>
<td>Y/N</td>
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<td>101/78</td>
<td>35/30</td>
<td>213/211</td>
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<td>59/120</td>
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<td>8/57</td>
<td>58/366</td>
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<tr>
<td>8</td>
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<td>28/151</td>
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</table>

n = 424

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Table 7
Raw Sample Data For Simultaneous Alcohol Consumption

<table>
<thead>
<tr>
<th>Ounces</th>
<th>DCI</th>
<th>LSP</th>
<th>Males</th>
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<td>107</td>
<td>203</td>
<td>41</td>
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<td>38</td>
<td>21</td>
<td>59</td>
<td>9</td>
<td>68</td>
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<tr>
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<td>180</td>
<td>359</td>
<td>65</td>
<td>424</td>
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Table 8
Raw Sample Data for 24 Hour Alcohol Consumption

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<th>All</th>
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</thead>
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<td>93</td>
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<td>44</td>
<td>229</td>
</tr>
<tr>
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<tr>
<td>3-6</td>
<td>15</td>
<td>14</td>
<td>29</td>
<td>5</td>
<td>34</td>
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<tr>
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<td>31</td>
<td>9</td>
<td>40</td>
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<td>7</td>
<td>81</td>
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<tr>
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<td>180</td>
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Table 9
Raw Sample Data for 48 Hour Alcohol Consumption

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<td>116</td>
<td>208</td>
<td>46</td>
<td>254</td>
</tr>
<tr>
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<td>9</td>
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<td>13</td>
</tr>
<tr>
<td>3-6</td>
<td>23</td>
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### Table 10
**Raw Sample Data for One Week Alcohol Consumption**

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<th>Ounces</th>
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<th>LSP</th>
<th>Males</th>
<th>LCIW</th>
<th>All</th>
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<tbody>
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### Table 11
**Raw Sample Data for Typical Week Alcohol Consumption**

<table>
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<th>LCIW</th>
<th>All</th>
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<td>180</td>
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### Table 12
**Raw Sample Data for Alcohol Abuse Diagnoses**

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<td>LCIW</td>
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<tr>
<td>All</td>
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Table 13
Raw Sample Data for Inmate Occupations

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<td>20</td>
<td>5</td>
<td>25</td>
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<td>04</td>
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<td>67</td>
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</table>

n = 179 180 359 65 424

01 = service/secretarial/clerical 06 = fishing/seafood
02 = food service/bar 07 = farmer/landscape
03 = laborer/janitorial 08 = factory worker
04 = construction/transportation 09 = professional
05 = machine operator 10 = unemployed

Table 14
Raw Sample Data for Inmate Education

<table>
<thead>
<tr>
<th>Years</th>
<th>DCI</th>
<th>LSP</th>
<th>Males</th>
<th>LCIW</th>
<th>All</th>
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<td>2</td>
<td>28</td>
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</tr>
<tr>
<td>12</td>
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<td>90</td>
<td>20</td>
<td>110</td>
</tr>
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</table>

n = 179 180 359 65 424
Table 15
Raw Sample Data for Inmate Age

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<th>All</th>
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<td>12</td>
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n = 179 180 359 65 424

Table 16
Inmate Commitment Offenses by Four Chosen Typologies

<table>
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<tr>
<th>Type/Crime</th>
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<th>LSP</th>
<th>Males</th>
<th>LCIW</th>
<th>All</th>
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<tbody>
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<td>28</td>
<td>101</td>
<td>54</td>
<td>155</td>
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</tbody>
</table>

n = 179 180 359 65 424

01 = violent/alcohol-related crime
02 = violent/non-alcohol-related crime
03 = non-violent/alcohol-related crime
04 = non-violent/non-alcohol-related crime
Table 17
Inmate Prior Offenses by Four Chosen Typologies

<table>
<thead>
<tr>
<th>Type/Crime</th>
<th>DCI</th>
<th>LSP</th>
<th>Males</th>
<th>LCIW</th>
<th>All</th>
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<td>89</td>
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<td>90</td>
<td>170</td>
<td>27</td>
<td>197</td>
</tr>
</tbody>
</table>

n = 179 180 359 65 424

01 = violent/alcohol-related crime
02 = violent/non-alcohol-related crime
03 = non-violent/alcohol-related crime
04 = non-violent/non-alcohol-related crime
05 = no prior offense

Table 18
Raw Sample Data for Inmate Income

<table>
<thead>
<tr>
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<th>Males</th>
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<tr>
<td>0-5,000</td>
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<td>38</td>
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<td>69</td>
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<td>35</td>
<td>5</td>
<td>40</td>
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<td>20,001-25,000</td>
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<td>19</td>
<td>34</td>
<td>5</td>
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<td>25,001-30,000</td>
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n = 179 180 359 65 424
### Table 19
**Raw Sample Data for Criminal Event Location**

<table>
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<th>LCIW</th>
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<tr>
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<td>14</td>
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<td>5</td>
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<td>24</td>
<td>42</td>
<td>8</td>
<td>49</td>
</tr>
</tbody>
</table>

n = 179 180 359 65 424

01 = their home
02 = victim's home
03 = another house
04 = bar
05 = store
06 = school
07 = work place
08 = automobile
09 = street
10 = another place

### Table 20
**Raw Sample Data for Where Alcohol is Typically Obtained**

<table>
<thead>
<tr>
<th>Location</th>
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<th>Males</th>
<th>LCIW</th>
<th>All</th>
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<td>94</td>
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</tbody>
</table>

n = 179 180 359 65 424

01 = liquor store
02 = convenience store
03 = grocery store
04 = bar
05 = a friend
06 = a relative
07 = at home
08 = another place
09 = do not drink
### Table 21
Raw Sample Data for Typical Drinking Location

<table>
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<tr>
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<th>LCIW</th>
<th>All</th>
</tr>
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<td>47</td>
<td>83</td>
<td>5</td>
<td>88</td>
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</tbody>
</table>

n = 179 180 359 65 424

01 = their home  
02 = someone else's home  
03 = grocery store  
04 = bar  
05 = liquor store  
06 = work place  
07 = automobile  
08 = other/street location

### Table 22
Raw Sample Data for Length of Sentence

<table>
<thead>
<tr>
<th>Months</th>
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<th>LSP</th>
<th>Males</th>
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<td>59</td>
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<td>68</td>
<td>24</td>
<td>92</td>
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<tr>
<td>61-120</td>
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n = 179 180 359 65 424

### Table 23
Raw Sample Data - Marital Status

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n = 179 180 359 65 424

1 = murder 1
2 = murder 2
3 = armed robbery
4 = aggravated rape
5 = manslaughter
6 = simple theft
7 = simple burglary
8 = simple arson
9 = possession schedule II controlled dangerous substance
10 = possession schedule I controlled dangerous substance
11 = theft over $500
12 = issuing worthless checks
13 = forgery
14 = attempted murder
Table 24 Continued

15 = attempted murder  
16 = crime against nature  
17 = illegal use of a weapon  
18 = possession of drug paraphernalia  
19 = prescription fraud  
20 = negligent homicide  
21 = aggravated burglary  
22 = DWI (> 2nd offense  
23 = aggravated battery  
24 = unauthorized use of a movable  
25 = simple robbery  
26 = first degree robbery/car jacking  
27 = second degree battery  
28 = second degree kidnapping  
29 = kidnapping

Table 25  
Inmate Homes of Record

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n = 179 180 359 65 424

*located in Louisiana
Table 26
Raw Sample Data for Race & Sentence

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n = 291 96 6 17 12 2

01 = African-American 04 = Hispanic
02 = Caucasian 05 = Native American
03 = Asian 06 = other race

Table 27
Raw Sample Data for Race & Commitment Offense

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n = 291 96 6 17 12 2

rows: 01 - 04 = four criminal offense typologies (see table 16)
columns 01 - 06 as above in table 26

Table 28
Raw Sample Data for Race & Prior Offense

<table>
<thead>
<tr>
<th>Offense</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>02</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<tr>
<td>03</td>
<td>57</td>
<td>27</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>04</td>
<td>73</td>
<td>17</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>05</td>
<td>143</td>
<td>44</td>
<td>2</td>
<td>10</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

n = 291 96 6 17 12 2

rows: 01 - 04 and columns 01 - 06 as above
### Table 29
**Raw Sample Data for Race & Income**

<table>
<thead>
<tr>
<th>$</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>13</td>
<td>13</td>
<td>1</td>
<td>9</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>02</td>
<td>40</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>03</td>
<td>41</td>
<td>16</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>04</td>
<td>32</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>05</td>
<td>21</td>
<td>15</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>06</td>
<td>15</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>07</td>
<td>8</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>08</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09</td>
<td>15</td>
<td>15</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

\( n = 291 \ 96 \ 6 \ 17 \ 12 \ 2 \)

**rows:** 01 - 09 = income per year in dollars beginning at $0-5,000 (see table 18)
**columns:** 01 - 06 as above table 26

### Table 30
**Raw Sample Data for Race & Education**

<table>
<thead>
<tr>
<th>Years</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>02</td>
<td>18</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>03</td>
<td>36</td>
<td>16</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>04</td>
<td>81</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>05</td>
<td>88</td>
<td>28</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>06</td>
<td>48</td>
<td>20</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>07</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>08</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

\( n = 291 \ 96 \ 6 \ 17 \ 12 \ 2 \)

**rows:** 01 - 09 = education in years etc. beginning at 0-4 (see table 14)
**columns:** 01 - 06 as above table 26
Table 31
Raw Sample Data for Race & Alcohol Abuse

<table>
<thead>
<tr>
<th>Abuse</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>111</td>
<td>53</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>no</td>
<td>180</td>
<td>43</td>
<td>4</td>
<td>11</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>n</td>
<td>291</td>
<td>96</td>
<td>6</td>
<td>17</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

Columns 01 - 06 as above in table 25

Table 32
Raw Sample Data for Race & Alcohol Consumption

<table>
<thead>
<tr>
<th>Ounces*</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>99</td>
<td>21</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1-2</td>
<td>30</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3-6</td>
<td>30</td>
<td>17</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>7-12</td>
<td>30</td>
<td>13</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>&gt;12</td>
<td>102</td>
<td>41</td>
<td>3</td>
<td>8</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>n</td>
<td>291</td>
<td>96</td>
<td>6</td>
<td>17</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

*This table shows typical week consumption of alcohol in fluid ounces.

Columns 01 - 06 as above in table 26
VITA

Don Randall Haley was born on October 5, 1959, in Baton Rouge, Louisiana, the second child of two. He completed his undergraduate degree in history at Louisiana State University (LSU) in Baton Rouge in May, 1987, and served in the United States Army for three and one-half years. He earned a master's degree in social work, also at LSU in May, 1993. He is scheduled to receive the degree of Doctor of Philosophy in December of 2000. He is currently an assistant professor in the Department of Social Work at Northwestern State University in Natchitoches, Louisiana, where he teaches research methods, statistics and social work practice. His academic career is supplemented by clinical practice and Army reserve duty. He is married to Terrilee Haley and they have a daughter, Elizabeth Regina Haley.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Don Randall Haley

Major Field: Social Work

Title of Dissertation: ALCOHOL ABUSE AND VIOLENT CRIME: A CONTEMPORARY EXAMINATION AND COMPARISON OF ADULT MALE AND FEMALE VIOLENT AND NONVIOLENT CRIMINAL OFFENDERS

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination: 9/6/00