A PROFILE OF THE MISSISSIPPI LAW ENFORCEMENT OFFICER: AN ALCOHOL CONSUMPTION STUDY

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AN ALCOHOL CONSUMPTION STUDY

by

Vicki Lynn Lindsay

A Dissertation
Submitted to the Graduate Studies Office
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Approved:

May 2007
A PROFILE OF THE MISSISSIPPI LAW ENFORCEMENT OFFICER:
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ABSTRACT

A PROFILE OF THE MISSISSIPPI LAW ENFORCEMENT OFFICER:
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May 2007

The United States law enforcement occupation is speculated in literature to have one of the highest abuse rates of alcoholic beverages, roughly twice that of the general population. Yet, no known quantitative research profiling alcohol consumption has been conducted. Researchers have attributed the fear of repercussion and the code of silence to the lack of data on this phenomenon. This study sought to confront the informational void. Its purpose was to determine the alcohol consumption patterns among a pool of Mississippi police officers.

A 25 item questionnaire, incorporating the World Health Organization's AUDIT instrument, was designed to obtain demographics, drinking behaviors, and identify officers who may have risk patterns of alcohol problems. This questionnaire was distributed to the participants, 663 full time Mississippi police officers, sheriffs deputies, and state police officers, who reported their work either as field officers or administrators within the year 2006.

The findings were enlightening. The officers drank an average of 2.79 drinks approximately 4.8 times a month. Additionally, 18.2% of the officers scored above an 8 on the AUDIT instrument, which labeled them at or above a harmful risk level for alcohol problems. The researcher found that age, marital status, race, region, and wit
whom they drank, were significant predictors of alcohol risk. However, gender and rank
were not found to be significant. Furthermore, factor analysis disclosed interesting
conclusions on the reasons officers reported that they drank alcohol. The researcher
found that the risk level of the officers held statistically significant differences in three
factors: fitting in, $F(2, 29) = 12.518, p<.001$; social animal, $F(2, 29) = 25.658, p<.001$;
and stress, $F(2, 29) = 5.179, p<.012$.

However, contrary to current literature, the researcher found no statistically
significant difference in the amount of alcohol consumed by police and the general
population of the United States. Furthermore, the rate of consumption of those police
officers who drank was within healthy parameters. In Mississippi at least, the abuse of
alcohol within the police community seems to be marginal. There are, however, a
handful of officers with risk behavior that demand administrative intervention.
DEDICATION

To my mother, Carol Lee, who owns this document to the same degree as the author, and my father, Dan Lindsay, who wanted a doctor, not a lawyer, in the family.
ACKNOWLEDGEMENTS

This document would not have been possible without the support of a great number of people. To completely thank all of them would take a book in itself. The following people have greatly helped me to finalize this gratifying process.

The most gratitude I extend is to my mother, Carol Lee, who has had the greatest influence on my progress toward degree. There are not enough words to express the gratitude and love that I feel for you. You opened your home to me for more than two years while I attended school. You edited my papers, listened to my whining, gave me advice, encouraged my struggle onward, and took me shopping when I needed a break. As in life, you were there in every aspect of this evolution, and because of that, I thank you, love you, and dedicate this project to you.

I dearly thank my dissertation committee members, Dr. Kyna Shelley, Dr. William Taylor, Dr. Philip Carlan, and Dr. Lisa Nored for their individual help with the process and their patience with me.

I would like to extend special gratitude to Dr. Kyna Shelley, who must be one of the most in demand faculty at the University, leaping from one project deadline to the next. Consequently, you gave me all the time that I asked for, more than I possibly needed, going above and beyond your responsibilities, taking on my cause and nursing my “A” personality. By luck or fate, I was blessed with your kindness when I had no one else, and for that I will be eternally grateful. I only hope that I treat my students with the dedication and compassion that you have given yours.
My sincerest appreciation and respect is extended to Dr. William Banks Taylor, who had not only helped with the creation of this document, but also was a big influence in my new found love of philosophy. Dr. Taylor, in his brief emails and passing conversations, has asked intuitive questions of the meaning of crime and nature of our own liberty to initiate my analytical thought toward the path of natural enlightenment. Dr. Taylor also put forth great effort to help with this project. When he found that I was fed up with rubbing my two sticks together, he lent me the flint to set the literary fire ablaze in this project. For that, I will be eternally grateful.

My appreciation is also extended to my committee members, Dr. Philip Carlan and Dr. Lisa Nored. They left their doors always open to my problems, crises, and ranting about this and other projects. At the same time, they calmed me and lent their support to whatever idea I was championing at the time. Their confidence in my ability led me to trust that I could attain most anything, and with their help, I did.

Special thanks are extended to the World Health Organization, which allowed me to incorporate its Alcohol Use Disorders Identification Test (AUDIT) instrument into my own questionnaire and publish it within this binder.

I would not have accomplished this feat without the special help of a group of girls which I met in graduate school. These girls made me understand what it was like to have true girlfriends. I was able to complain, vent, laugh, and cry with these women, and because of that, I was able to make it through the stress of this program. I would like to let these women know that I hold each of them dearly in my heart and thank them for all that they did. My adoration goes out to Elizabeth McMullan, Tara Wright, Lana McDowell, and Sara Buck-Dowde.
Finally, I would like to thank my husband, Matt, for marrying me then allowing me to leave him for two years while I pursued my dreams. Matt, your selflessness and patience allowed me to flourish, your questioning of my self-doubt made me trust my worth, and your devotion made me love you more.
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CHAPTER I
INTRODUCTION

Alcoholic beverages have a curious history. Dating from the days of Greek antiquity, they have been not only legal but also considered an important medium of social intercourse, a vehicle for relaxation, and a medicinal tool. On the other hand, the excessive use of alcohol has always been vilified. Nobody, yesterday or today, admires a drunk; a wide range of unacceptable behaviors result from overindulgence, and alcoholism is severely stigmatized by society. Perhaps no human behavior more graphically illustrates the tenuous nature of Aristotle’s “Golden Mean.” Those who can “hold their liquor” are socially accepted, even assigned a measure of social virtue; those who cannot are despised, even thought to personify vice. And the desired mean is iffy business, a social abstraction that altogether ignores human biology and countless other variables in the chemical equation.

Nor does society apply the Golden Mean equally: the higher up the social ladder people climb, the more they are expected to be able to “hold their liquor,” despite the fact that social ascent normally equates with more exposure to alcohol. Furthermore, behaviors reflecting overindulgence among people who are employed in certain professions excite almost universal, if unreasonable, moral condemnation. Social stature generally, and social stature that conveys power and influence more particularly, brings with it a standard of behavior that is considerably higher than that to which lesser mortals are exposed (Hooke, 1996).

Police officers are such a group. The power and influence assigned to those who enforce the law always has been considerable, and in recent years various phenomena
have carried American law enforcement from a vocational to a professional status in the
perception of the broader society (Hooke, 1996). A proliferation of “cop shows” in
television programming, especially those allying criminal investigation with the supposed
miracles of forensic science, has contributed. So, too, has a new emphasis on
professional accountability inspired by vast improvements in media technology. Many
police administrators have accordingly embraced scientific methodology in personnel
selection, exposing applicants to psychological testing and far more exacting background
checks than in the past (Twersky-Glasner, 2005).

The personal attributes that are sought constitute a very delicate balance.
Negative qualities -- hostility, paranoia, lack of personal autonomy, immaturity, potential
for substance abuse -- must be identified up front; such attributes can produce disasters in
the line of duty, highly-publicized violations of public law, behaviors that are socially
damaging or personally lethal, and ruinous criminal, civil and constitutional tort liability.
On the other hand, police work demands bravery, machismo, and a degree of aggression
(Twersky-Glasner, 2005).

Despite the emphasis on public respect, the nature of law enforcement inevitably
relegates police officers to membership in a close-knit subculture characterized by
perceptions that are strikingly different from the broader culture and within which
attitudes and behaviors are reinforced by association (Kappeler, Sluder, & Alpert, 1998)
This phenomenon is positive in many ways, creating a unique camaraderie among
officers, almost a fraternity, which is manifested by an extraordinary emphasis on
bravery, autonomy, and secrecy (Kappeler et al., 1998).
Yet, the police subculture has negative features as well. Daily exposure to the worst features of social life, and often to a degree of danger and stress that is incomprehensible to outsiders, police officers normally bond on the basis of attitudes that separate and alienate them from the general public and even from their own administrators in some cases. They normally share a far more negative view of humanity than the broader society. Among even educated officers, a degree of anti-intellectualism is often discernible. Scholars also note feelings of separateness, even isolation, among officers, centering on feelings of being misunderstood, often resulting in a sense of martyrdom and producing the distrust of outsiders reflected by the much-discussed “code of silence” to which most officers subscribe (Kappeler et al., 1998). Within the police subculture, then, negative behaviors certainly exist and are reinforced by peers. Among them is a degree of alcohol consumption that might well have a deleterious effect on both job performance and the perceptions of the public (Martin, 1999).

Police officers themselves identify two main reasons why they consume alcohol. The first is social in nature: alcohol is a medium for celebration and social bonding with colleagues, a factor in forging the camaraderie required by the job (Pendergrass & Ostrove, 1986). The second is medicinal: alcohol is consumed to relieve job-related stress and the personal problems arising from it (Violanti, Marshall, & Howe, 1985).

Both venues pose potential problems. Alcohol has been found beneficial only if consumed in moderate amounts (Giancola, 2006; Mukamal & Rimm, 2001; Stampfèr, Kang, & Chen et al., 2005; Steele, Critchlow, & Liu, 1985). Otherwise it is known to be harmful to the human mind and body (Dennison, Prevet, & Affleck, 1980; Hull & Bond, 1986; McEvoy, 1982; Oscar-Berman & Shagrin, 1997; Steele & Southwick, 1985).
Hence, officers who overuse alcohol are at risk of developing alcohol-related illnesses, of employing poor judgment in the line of duty, and of inspiring a degree of public scorn that might damage themselves, the departments for which they work, and the elected public officials who preside over their legal jurisdictions.

Because of the expectations of colleagues and the unrealistic standards of behavior imposed by the public and thus by many police administrators, alcohol-dependent officers are under great pressure to cope with the problem on their own and often eschew external professional intervention. Such officers might think, not unreasonably, that alcohol abuse places their jobs at risk; and colleagues, sharing that perception, might collaborate in hiding the addiction from superior officers (Kirschman, 2006).

The extent of the overuse of alcohol by officers is thought to be great, even pervasive: informed sources estimate that alcohol consumption and dependency among law enforcement officers is twice that of the general population (Kirschman, 2006). These estimates, however, are just that, estimates; no known study has actually profiled the use of alcohol among American law enforcement officers, and there are thus no quantitative data. Some attribute this informational void to the police code of silence (Dietrich & Smith, 1986), and no doubt that feature of the American police subculture is a factor, but studies in other counties are quite instructive.

A study of Australian police officers conducted by Davey, Obst, and Sheehan (2000a) confirmed not only that officers would answer questions about their alcohol consumption, but also that approximately half of Australian officers drink at levels which are considered harmful to their health. The researchers profiled alcohol consumption by
over 4,000 police officers, compared the resulting data to that in the National Household Survey reflecting alcohol consumption by the general population of Australia, and concluded that police officers, while drinking less frequently, consumed greater quantities on the occasions they indulged than the general population.

The researchers also found that specific variables were significantly related to alcohol consumption by Australian police officers: rank, marital status, years in service (curvilinear), gender, and age. Officers over the age of 36 consumed alcohol on more occasions but were less likely to drink at high-risk levels than other age groups. The group that was more likely to drink at high-risk levels was male officers in the 18-25 year range and female officers aged 18-30 years. The researchers also found that officers who were in their first 10 years of service consumed more in a sitting than the other groups, while officers with 10 years or more of service drank more often. Officers holding the rank of constable reported consuming more alcoholic drinks in a sitting than their sergeants and officers (Davey, Obst & Sheehan, 2000a).

The study also profiled the members of the sample who were at risk of harmful or hazardous drinking levels, concluding that the most at-risk parties were those who were male, 18-25 years old, had tenure of four to ten years in the field, and held the rank of constable. Married officers were less likely to belong to the harmful or hazardous risk groups than divorced, single, and separated officers. The Australian researchers found that even though a major risk factor for harmful drinking levels was being male, female officers were also at risk, a higher percentage of females actually drinking at more hazardous levels than males (Davey, Obst & Sheehan, 2000a).
The study by Davey, Obst and Sheehan (2000a) is the only one of its kind, and it inspired this research project, which profiles the alcohol consumption of a smaller sample of police officers working within the state of Mississippi.

Statement of the Problem

American police officers are held to a much higher standard of conduct than other members of society, despite the fact that their jobs are far more stressful than others. The law enforcement community is likewise separated from the broader community by attitudes arising from the nature of police work. The result is that law enforcement is a subculture, one characterized by a lesser degree of faith in humanity and a greater degree of general negativism than the broader culture; it distrusts outsiders, subscribes to a “code of silence” in protecting fellow officers, and produces unique behaviors.

Among the unique behaviors is a presumed high level of alcohol abuse that supposedly goes largely untreated due to police perceptions of society’s lofty expectations, a resulting fear of being fired, and collusion by protective colleagues; and this supposition is generally supported by research conducted in Australia. Yet, no known quantitative research profiling alcohol consumption and abuse among American police officers has been conducted. The subject is thus a troubling informational void in need of research, enumeration, and analysis.

Purpose of the Study

This study will seek to confront the aforementioned informational void. Its purpose is to determine the alcohol consumption patterns among a pool of police officers employed by various law enforcement agencies within the state of Mississippi. Specifically, the study will seek answers to the following questions:
1. What is the profile of Mississippi law enforcement officers who consume alcohol?

2. Is this profile different from that of the general population?

3. Is this profile the same in all departments, regardless of the populations of the counties they serve?

4. Is this profile the same in all types of departments?

5. Is this profile the same in all judicial districts?

6. Is there a regional difference in why these officers drink alcohol?

7. What is the profile of the group of Mississippi law enforcement officers who are most at risk because of their drinking behaviors?

Definitions

The following terms are employed in the study:

- Academy – One of the law enforcement training schools of the state of Mississippi operating in accordance with Mississippi State Code § 45-6-7.

- Alcohol or alcoholic beverage – A beverage in which ethanol is the active ingredient. These beverages may be fermented or distilled and made from fruits, vegetables, grains, or sugar (Heath, 1982)

- Alcohol Abuse – A biological disorder arising from the excessive consumption of ethanol that normally has behavioral manifestations (Petrakis, Gonzalez, Rosenheck, & Krystal, 2002).

- Binge Drinking – The consumption of five or more alcoholic beverages in one sitting for either males or females. (Wechsler & Wuethrich, 2002; Dawson, Grant, Stinson, & Chou, 2004)
• Blood Alcohol Concentration (BAC) — The proportion of alcohol to total blood volume. In an average person, one drink will produce a BAC of approximately 0.02. Most states have laws that define legal intoxication as a BAC of 0.10 (Dennison, Prevet, & Affleck, 1980). In Mississippi, the level of legal intoxication is currently a BAC of 0.08 (Mississippi Code Ann. § 63-11-30, 2006).

• Certified Police Officer - A Police officer who has obtained certification through the Board of Minimum Standards within the state of Mississippi in accordance with the provisions of public law (Mississippi State Code § 45-6-7 (2006).

• Cope – Activities which are conducted to reduce the negative effects of stress or stress-related disorders. (Beehr, Johnson, & Nieva, 1995). This activity may allow the person to be less anxious of the perceived threat (Hull & Bond, 1986).

• Drink – A beverage or liquid containing approximately 14 grams of ethanol (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). In the United States this amount of ethanol equates with approximately 12 ounces of beer, 12 ounces of a malt beverage or wine cooler, four ounces of wine, or one and one quarter ounces of distilled beverage.

• Drinking behavior – The consumption rate of alcohol, which is calculated by factoring the frequency of occasions when alcohol is consumed and the volume of alcohol consumed per occasion (Grunberg, Moore, & Greenberg, 1998).

• Harmful risk – A score of 8-15 on the Alcohol Use Disorders Identification Test (AUDIT) (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Harmful risk indicates the level of consumption at which professional intervention is normally required to arrest progression toward hazardous-risk levels of consumption.
• Hazardous risk - A score of above 16 on the Alcohol Use Disorders Identification Test (AUDIT) (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Hazardous risk may result in alcohol dependence.

• Law Enforcement Administrator – The chief executive officer of a law enforcement agency or of a division within a law enforcement agency: a chief of police, sheriff, or division head as defined by public law (Mississippi Code Sections § 45-3-5 and § 21-21-1, and Mississippi Constitution Article 5, Section 135).

• Occupational stress – Stress arising from the workplace (Beehr, Johnson, & Nieva, 1995) but not from the work itself (Coman & Evans, 1991).

• Police Culture – Shared beliefs and behaviors associated with the occupation of policing. This culture may be influenced by beliefs and behaviors brought into the workplace (Davey, Obst, & Sheehan, 2000b).

• Law Enforcement officer or police officer– Any member of the law enforcement community who has sworn to uphold the laws of the state as set forth in the following guidelines:

  1. Police Officer – Any person employed full- or part-time at the will and pleasure of the Mayor or Chief of Police of the Municipality of the state of Mississippi according to and authorized by state code §21-21-3, § 45-6-3, and § 45-6-11 (2006).

  2. Sheriff’s Deputy – Any person employed full or part time at the will and pleasure of the Sheriff of any of the counties of the state of Mississippi
according to and authorized by state code § 19-25-19, § 45-6-3, and § 45-6-11 (2006).

3. State law enforcement – Any person employed by the state of Mississippi in full time or part time capacity who is duly sworn, able to make arrests, and authorized to carry a weapon whose primary function is to detect and prevent crime for the State of Mississippi as authorized under state code § 45-6-3 (2006).

- Police personality – A set of traits that are common but not exclusive among law enforcement officers. These traits are seen as those universal to the profession and may arise during service or because of hiring process (Twersky-Glasner, 2005). They may also arise from learning coping strategies that are inherent in police work such as cynicism and suspiciousness (Coman & Evans, 1991).

- Sitting - A period of time in which the person conducts a single activity (American Heritage, 2000).

- Stress – An overwhelming feeling that is brought on by an environment that is too dominant to conquer (Bonifacio, 1991). This feeling is expressed in anxiety and could be seen as both a positive and a negative influence. It also is important how the affected sees the situation and evaluates the information (Sigler & Thweatt, 1997).

Delimitations

1. The participating officers are only those police officers employed by agencies within the state of Mississippi who volunteered to complete the questionnaire.
2. The participating officers are only those of full-time employment status and do not include dispatch personnel or other part-time employees.

3. The participating officers are only those who are available during the pre-scheduled appointment time arranged with the administrator of the department.

4. The participating officers asked to participate in the study are ones for which the administrator has been allowed permission to approach.

5. Financial limitations have limited this study to a sample of the state’s law enforcement officers, although the sample is stratified, including officers employed by at least nine small counties, six medium-sized counties, and six large counties.

Assumptions

Certain basic assumptions are utilized while forming this study. The major assumptions for this current study are as follows:

1. The study assumes that respondents will answer the questions truthfully.

2. The study assumes that the randomly-picked participants constitute a representative sample of all the municipal and county police agencies within the state of Mississippi.

3. The study assumes that all of the officers in the county cluster who desired to participate were able to do so.

4. The study assumes that no event has transpired during the course of research that might skew research findings.
5. This study assumes that the drinking patterns of the NIAAA study are accurate and applicable to the populations of the included Mississippi counties.

6. This assumption assumes that female police officers need not be held to a different standard than men.

Justification

This study is justified by a dearth of extant literature on the subject of alcohol consumption and abuse among American law enforcement officers and by the undeniable importance of the subject in both police administration and public health.
CHAPTER II

REVIEW OF RELATED LITERATURE

Alcohol research in the United States has been extensive, and researchers have profiled almost every segment of the population. Curiously, though, none of the research has focused on the law enforcement community, despite the fact that virtually every risk factor identified by those who study alcohol abuse applies to police officers. The informational void is all the more incomprehensible when one considers the role of police officers in public safety, the discretionary powers vested in them, the extraordinary American emphasis on due process of law, the interest the nation’s media display in “renegade cops,” and the resulting lofty standards of personal deportment and professional conduct society assigns to those who enforce the law. Those standards, it seems, have blinded alcohol researchers. There appears to be a perception that those who swear to uphold the law are somehow immune from the personal failings of humanity. Police officers are alternately praised and abused, but nobody considers that their behaviors, like those of others, might be affected by alcohol.

A study assessing alcohol consumption and abuse among police officers must consider contextual issues. This review of literature therefore begins with a brief account of relevant philosophical and jurisprudential opinion, and then turns to an overview of alcohol consumption and attempts to restrain it in American history. It proceeds to an examination of extant literature addressing recent trends of alcohol consumption in the United States, that pertaining to consumptive cause and effect, and that involving consumption by police officers.
Alcohol has been around in one form or another since the dawn of recorded history, and the consumption of it has brought considerable pleasure to humanity. Certainly intoxicating drinks have figured very prominently in human social interaction, loosening the tongue, freeing the soul, inspiring hilarity, and facilitating celebration. Alcohol has also inspired much comedy. Both Chaucer and Shakespeare exploited intoxication very effectively, and thousands of other writers and entertainers, including the stand-up comedians of today, have delighted their audiences with tales of stumbling drunks.

Yet, alcohol is as pervasive in tragedy as in comedy, loosening tongues at inopportune moments, freeing souls at the expense of prudence, inspiring too much celebration, and triggering social behaviors that have resulted in untold misery. Alcohol abuse, in fact, has been a major factor in social history, in military history, even in the rise and fall of nations; and the debilitating effect of alcohol on the cognitive powers of humankind has been recognized as a threat to social collaboration since the days of Greek antiquity. Philosophers have pondered the ruinous effect of alcohol on rational thought; theologians have brought moral reasoning, notions of virtue and vice, into the debate; and jurisprudents, confounded by alcohol’s effect on a supposed free human will, have debated the resulting challenges to the rule of law.

The consumption of alcohol was a pervasive feature of Greek social life, and Plato addressed this phenomenon in his play, Symposium. Anxious to preside over a successful party, the host in the play greets his guests in conventional fashion, inviting them to share the fruits of his wine cellar. The guests, all being hung over from
overindulgence the previous night, defer. The host gets pushy, insisting on consumption. The guests engage in metaphysical discourse, examining the tyranny of social convention as well as its debilitating effect on individual will, and a physician among the guests brings science into the discussion, addressing the negative effect of alcohol on health. Confronted by overpowering logic, the disappointed host relents. Later, however, he frets about the unhappy effect of sobriety on his party and again insists that his guests consume wine. At last bowing to social convention, the guests sacrifice their wills, imbibe, and get riotously drunk. Among them, only Socrates, whom Plato ever represented as the personification of virtue, remains sober (Beck, 1996).

Aristotle’s highly influential concept of a “golden mean,” which was advanced in his *Nicomachean Ethics* (Morris, 1997, p. 16-26), expanded on Plato’s thoughts. The Aristotelian golden mean equates with virtue, and it arises via ethical reasoning that considers two poles, both constituting vice. All forms of human behavior, including alcohol consumption, are likewise subject to the golden mean. The problem with alcohol is not in mere consumption; there, moderation can promote individual pleasure and enhance social intercourse. Rather, the problem lies in an absence of moderation, in excessive consumption, which causes people who are not ignorant to “act by reason of ignorance”; such acts often threaten the welfare of both the self and others. Moreover, whether damage is inflicted on the self or on another, it is inflicted voluntarily, willed by the actor. The “temperate man,” Aristotle reasoned, “craves for the things he ought, as he ought, as when he ought; and when he ought; and this is what rational principle directs” (p. 17-18).
The philosopher thus made no allowance for biological or environmental variables in the alcohol equation. Indeed, he asserted that damages arising from drunkenness should be punished by double penalties, and a later edict of Pittacus, the Greek lawgiver, applied Aristotelian logic to the criminal law, holding that “he who committed a crime, when drunk, should receive a double punishment” – one for the crime, another for the drunkenness which inspired it (Blackstone, 1765-1769/1916, p. 2187).

Roman law was more sympathetic to the drunken criminal, actually holding that capital punishment was to be remitted when the crime was occasioned by the abuse of alcohol. Yet, Roman society was progressively troubled by alcoholic debauchery, even among the members of the vaunted Praetorian Guard, and legal rules fluctuated dramatically (Blackstone, 1765-1769/1916; Durant, 1944).

Seneca (52/2006) viewed drunkenness as he did the other indiscretions of youth. Social duty and decorum were learned along the way to maturity, often through painful experience, he observed, and people normally displayed more temperance, composure, and grace in later life, not only in consuming alcohol but also in many other behaviors. But Seneca pulled no punches, observing that the abuse of alcohol was a dire social problem which often inspired woeful verbal imprudence, anger, fighting, and other socially-destructive conduct; and he advised his readers to ignore drunks at all times, for they had no control over what they said. Furthermore, Seneca, like Plato, considered the intemperate consumption of alcohol as a social contagion, a form of behavior that was frequently addictive to others. “Just as certain physical disorders are transmitted by
contact, so the mind passes on its evils to those nearest at hand. The drunkard draws his companions into a love of alcohol” (Seneca, 52/2006, p. 84).

Interestingly, Montesquieu (1734/1914) saw environmental variables in the alcohol equation that demanded the attention of lawgivers. In hot climates, he observed, alcohol affected behavior negatively, producing aggression and violence; but in cold climates, alcohol enhanced biological function, producing happiness among people. Hence, the consumption of alcohol reasonably might be banned or restrained under threat of harsh punishment in hot climates, but nature dictated an altogether different policy in colder ones.

Sir William Blackstone’s *Commentaries on the Laws of England* (1765-1769/1916) elaborated on the observations of Montesquieu:

> It hath been observed that the real use of strong liquors, and the abuse of them by drinking to excess, depend much upon the temperature of the climate in which we live. The same indulgence, which may be necessary to make the blood move in Norway, would make an Italian mad. A German, therefore, says the President Montesquieu, drinks through custom, founded upon constitutional necessity; a Spaniard drinks through choice, or out of the mere wantonness of luxury: and drunkenness he adds, ought to be more severely punished, where it makes men mischievous and mad, as in Spain and Italy, than where it only renders them stupid and heavy, as in Germany and more northern countries… (p. 2186-2187).
The law of England, Blackstone observed, failed to acknowledge such distinctions, despite the temperate climate of the British Isles (Blackstone, 1765-1769/1916).

The jurisprudential thought Blackstone consulted was of early vintage. Sir Edward Coke (Blackstone, 1756-1769/1916) had explained centuries earlier that drunkenness simply could not be admitted among the several circumstances that constituted the “defects of understanding” which obviated or mitigated criminal culpability at English law. A drunkard, he observed, was a “voluntarious daemon,” a madman by his own volition, and he enjoyed “no privilege thereby; but what hurt or ill soever he doth, his drunkenness doth aggravate it: *nam omne crimine ebrietatis, et incendit, et detigit* (for drunkenness excites to and discloses every crime)” (p. 2186). In the seventeenth century, Thomas Hobbes (1651/n.d.) propounded a similar point of view, observing that drunkenness was a violation of the natural law, forbidden not merely by scripture but also by human reason, and that the logic underlying human law was utterly confounded by the excessive consumption of alcohol.

Drawing on the reasoning of Coke and Hobbes, and also considering the necessary confluence of a guilty act (*actus reus*) and a guilty will (*mens rea*) in the Roman concept of *corpus delicti* (body of the crime) consulted by English criminal jurisprudence, Blackstone wandered through a very shaky explanation of drunkenness in English criminal law. He candidly admitted that alcohol deprived humans of requisite will, thus rendering them de facto *doli incapax* (incapable of distinguishing good from evil; deprived of the capacity to understand). The criminal law of England, however, considered “how easy it is to counterfeit this excuse [drunkenness], and how weak an
excuse it is (though real),” and it thus excluded voluntary intoxication from the variables that might cause a defect of understanding, refusing to “suffer any man thus to privilege one crime by another.” Involuntary intoxication, though, was quite another matter, for persons who committed crimes under external influence were deprived of requisite will and thus deemed doli incapax (Blackstone, 1756-1769/1916, p. 2175-2176, p. 2186-2187).

Yet, at civil law, entirely different reasoning applied. There, the doctrine of non compotes mentis (mentally incompetent) held that:

Madmen, or otherwise non compotes (not in their right senses), idiots or natural fools, persons grown childish by reason of old age or distemper, such as have their senses besotted with drunkenness, -- all these are incapable, by reason of mental disability, to make any will so long as such disability lasts. To this class also may referred such persons as are born deaf, blind, and dumb; who, as they have always wanted the common inlets of understanding, are incapable of having animum testandi (testamentary discretion), and their testaments are therefore void (Blackstone, 1756-1769/1916, p. 1385).

Hence, while voluntarily drunkenness did not equate with non compotes mentis at criminal law, and in fact might aggravate culpability, it was recognized among the factors that might make one non compotes mentis at civil law.

The jurisprudential difficulty of drunkenness was further highlighted by Blackstone’s observations on the limits of the criminal law. “All crimes ought … to be estimated merely according to the mischiefs which they produce in civil society,” he
admonished; “private vices ... are not, cannot be, the object of any municipal law....”

The vice of drunkenness, then, “if committed privately and alone, is beyond ... the reach of human tribunals; but if committed publicly, in the face of the world, its evil example makes it liable to temporal censures.” Even in the face of the world, however, drunkenness was essentially in foro conscientiae, Blackstone observed, assigned to “the tribunal of individual conscience,” and as such could not be censured by secular authority unless “attended with public inconvenience” (Blackstone, 1756-1769/1916, p. 2208).

However, this point of view, which was shared by John Stuart Mill (1859/1999), Blackstone’s great utilitarian critic, was at odds with English criminal statutes that sought to prevent drunkenness. These laws, Blackstone observed contradictorily, were “wholesome,” leveling fines on inebriated citizens and requiring them to sit in stocks until they had “regained their senses” whether or not drunkenness had been attended with “public inconvenience” (Blackstone, 1756-1769/1916, p. 2234). “Public inconvenience” in Blackstone’s England, therefore, was very broadly defined, essentially restricting the jurisdiction of the “tribunal of individual conscience” to the confines of the home.

While Blackstone, following earlier authorities, held that drunkenness might aggravate a criminal offense, later legal construction in many states has neutralized the variable of alcohol, ruling that it neither aggravates nor mitigates criminal culpability, although the distinction between voluntary and involuntary intoxication is still recognized in most jurisdictions (Mosher, 1981). However, the thoughts of Blackstone and Coke have not been adopted in U.S. laws until recently (Boyce & Perkins, 1989) when some states followed the Aristotelian rule that alcohol can aggravate certain crimes. For example, in Mississippi the culpability or state of blame for the criminal is not held the
same for a normal accidental death than as one in which the driver was intoxicated. For example: If a person was driving negligently and killed another, the Mississippi state code states that a crime of manslaughter should have a punishment of either a misdemeanor or felony with the punishment of two years to twenty in the state penitentiary (MS Code § 97-3-25). However, if a person is convicted of an aggravated DUI or killing someone while driving intoxicated, the judge will not be given a choice of misdemeanor; but the defendant shall be convicted of a felony and receive a punishment of five years to twenty-five years (MS Code § 63-11-30).

In the early 1900's as well as today, drunkenness could impact considerably on criminal litigation if four ways:

- It can demonstrate that a defendant could not have committed a criminal act, provided that the degree of intoxication is severe enough to cause physically incapacitation.
- It can demonstrate the incapacity of a defendant to possess a given state of mind required by statute, i.e., premeditation.
- It can demonstrate an absence of malice, thereby undermining a charge of murder and lending credence to a lesser charge of manslaughter.
- It can induce a form of mental incapacitation that may be treated as insanity by law.

In each of these cases, there is considerable dispute among jurisprudents, a fact that reflects the continuing difficulty of drunkenness in criminal jurisprudence (Blackstone, 1765-1769/1916, p.2187-2188n; Boyce & Perkins, 1989).
Alcohol and Legal Restraint in American History

Aristotle's concept of the golden mean was accepted by the schoolmen of the medieval Roman Church, thereby producing a degree of toleration on the subject of alcohol, but the Protestant sects that settled the northeastern colonies of America rejected even moderation in the consumption of alcoholic beverages, regarding all intoxicating beverages as "the devil's brew." No doubt this point of view arose partly from the problems spawned by the consumption of alcohol. Most settlers of early America drank often and excessively (Lender, 1982).

As in England, the private consumption of alcohol in the home, in conjunction with meals, was socially accepted among the early colonists, whereas public consumption was reviled, but in time the ideal of abstinence, public and private, prevailed in most of New England. Quite early in colonial history, drunkenness was made punishable by fines, incarceration, or corporal punishment. In Massachusetts, convicted parties were subjected to public humiliation, being forced to wear a "D" denoting drunk on their persons, and the Bay Colony also took measures to enforce temperance, resurrecting the office of tithingman, the citizen-police officers who for centuries had raised the hue and cry within tithings, or groups of ten families, the basic units of political organization within English shires. Each of these officers was presumed to be "sober and discreet," assigned jurisdiction over ten families, and given the express authority to seek out and report the consumption of alcohol. The secrecy of the position was determined, however, and the tithingmen were soon disbanded (Lender, 1982).

Problems with drunkenness made the New Haven colony enact laws to counteract overindulgence as well:
But every person found drunken, namely, so that he be thereby for
the present bereaved, or disabled in the use of his understanding,
appearing in his speech, jesture, or carriage, in any of the said houses or
elsewhere, shall forfeit for the first time, ten shillings; and for excess of
drinking, or continuing in any such place unnecessarily, at unseasonable
times, or after nine of the clock at night, five shillings; and for continuing
tippling there, above the space of an hour, two shillings six pence for the
first offense, and for the second offence in each kind, and for all further
disorder, quarelling, or disturbance, whether a first or second time, such
further fine or punishment as the court shall determine" (Daniels, 1878,
pp. 9-10).

Colonial Connecticut also enacted laws proscribing drunkenness. A court ordered
"that if any person be found drunk, and convicted so to be, in any private house, he shall
pay twenty shillings for every transgression of this nature, unto the public treasury, and
the owner of the house where the person is found and proved to be made drunk shall pay
ten shillings" (Daniels, 1878, p. 10).

A proponent of the early temperance movement in the American Colonies,
Reverend Lyman Beecher, contended that vice was "digging the grave of our liberties,”
especially drunkenness, and Beecher was especially appalled by the consumption of
alcohol by the clergy. Noting the habitual drunkards who littered the public streets as
well as the accompanying vice of profanity so common among them, he advocated an
alliance of temporal and secular authority, calling on the civil magistrates to enact laws
banning alcohol altogether (Daniels, 1878).
Many restrictive laws were enacted in New England, but they failed to arrest consumption, and the crusade for temperance was supported far less zealously among the Anglican and Catholic populations of the middle and southern colonies. At the end of the colonial era, Americans were curiously divided on the issue of alcohol. One segment of the population, centered in rural New England but supported among Protestant communities elsewhere, were teetotalers. Another, located in the middle and southern colonies, viewed alcohol more liberally. In urban areas, however, alcohol was a way of life. Foreigners noted the extremes of opinion but generally viewed Americans as a hard-drinking people, and it is safe to say that the consumption of alcohol had reached new heights by the time of the Revolution (Lender, 1982).

The early decades of independence were notable for a national spirit of renewal which led to much discussion of “republican virtue,” and temperance was among the leading virtues touted by both temporal and secular authorities. On the hustings, politicians allied public morality with the ideal of liberty, arguing that the one could not exist in the absence of the other, and they represented alcohol as the enemy of both, as a threat to public health, community values, and republican political ideals (Lender, 1982).

The early temperance movement reached its height during the 1830s. The French visitor Alexis De Tocqueville (1835/1994) noted that “Societies are formed which regard drunkenness as the principal cause of the evils of the state, and solemnly bind themselves to give an example of temperance” (p. 250). These associations, Tocqueville claimed, consisted of more than 270,000 members; and in Pennsylvania alone their efforts had diminished the consumption of strong liquors “by 500,000 gallons per annum....” (p. 250n). At about the same time, the Englishwoman Fanny Trollope (1832/ 1984)
commented on the political celebrity of temperance in the United States, observing
disapprovingly that the consumption of alcohol was almost as pervasive as the obnoxious
habit of spitting among Americans, and Taylor (1993) relates that the Mississippi
Temperance Society, founded in 1830, lobbied vigorously but unsuccessfully for
legislation banning alcohol.

A leading feature of this early temperance movement was the activism of women.
Indeed, temperance was one of the first great political expression of American
womanhood, and it brought about a substantial change in the social cast of drinking.
American men at that time had all the power and control of the household. These men
could literally drink away the work of the family. Therefore, an intervention to stop the
harmful effects of the men's drinking and the inability of the women to determine their
own future started the women's activism in the temperance movement, thereby screening

Still, the consumption of alcohol skyrocketed during the nineteenth century.
Immigration was a factor, bringing substantial numbers of hard-drinking Irishmen, Scots,
Germans and Italians to the northern cities, and so was the developing American frontier,
which hardly embraced prudish Yankee notions of virtue. The politician Henry S. Foote
noted in the 1830s that there was "nothing more noticeable in the social status of
Mississippi than the immense quantities of intoxicating drinks" consumed by all classes
(Taylor, 1993, p.10-11). Much the same was true of the other states admitted to the
Union during the nineteenth century and, as the historian Frederick Jackson Turner
(1894/1966) observed so famously, the values of the frontier reached back, dramatically
influencing the social mores of the eastern states. By the dawn of the twentieth century,
alcohol had assumed a role in American social life not unlike that attributed to ancient Athens by Plato's *Symposium* (Beck, 1996). Social events were thought to require alcohol; hosts who did not provide it were thought to be uncouth; guests were expected to imbibe (Lender, 1982).

Prior to 1919, temperance movements had been local initiatives, few had produced restraining legislation by state legislatures, and certainly none of them had resulted in action by Congress. During the second decade of the twentieth century, however, a strong national movement, spearheaded by aggressive Protestant clergymen and tied inseparably with the Suffragette Movement, sought federal legislation banning alcohol altogether, and in 1919 Congress passed the Volstead or National Prohibition Act, pursuant to the authorization conferred by the Eighteenth Amendment to the United States Constitution. The statute banned the manufacture, transportation, and sale of beverages containing more than 0.5 percent alcohol over the protests of a huge minority of American citizens, and the ban remained in effect until 1933, when National Prohibition was repealed by the Twenty-First Amendment (Rush, 1994, p. 354).

The enactment of the Volstead Act was followed by a crusade to humiliate those who consumed alcohol. The drunkard became a target for public ridicule. Clergymen led the way with fire and brimstone, representing those who drank alcohol as gluttons and social derelicts. Politicians, exploiting the wave of moral indignation, courted voters with promises of tougher laws and stringent enforcement. Arrested citizens were represented as the "epitome of human degradation" (Lender, 1982, p. 160). The federal prisons filled to capacity and a desperate campaign to find more space ensued (Taylor, 1999).
For a time, temperance was seen as noble, even holy, by the American people. Many swore off alcohol, and the early results of National Prohibition were promising, with consumption being reduced appreciably (Monahan, 1911). Long-term, however, its effect was far from fortunate.

Above all, National Prohibition inspired the phenomenon of syndicated crime. Prior to the enactment of the Volstead Act, criminal association within the United States had been an entirely local phenomenon, essentially restricted to large urban areas and fragmented among big-city politicians and a wide array of unconnected ethnic gangs (Abadinsky, 2003). Now, by enacting National Prohibition, the nation created a national black market supported by long-established and powerful consumer demand.

The appearance of such a promising business opportunity inspired great competition among those who wished to exploit it, and associations that had earlier engaged in local forms of “organized crime” were in an advantageous position. Among them, none were better placed than ethnic Italians concentrated in large urban areas, especially in New York and Chicago. Ethnic Italian communities were remarkably cohesive sub-cultures organized along patrimonial lines, and these communities remained closely linked with the old country by both familial and commercial ties. Within them, various forms of organized crime, facilitated by the control of wards within municipal government, had existed for some time, as it had in all of America’s ethnic urban communities. Formerly these criminal activities had been restricted by the localization of black markets assured by the restraining influence of federated government. Now, National Prohibition led Italian-American communities to bond as never before, organizing under local patriarchs. Alliances between “families” were struck; deals were
cut; and after a period of fierce warfare between rival factions, the Italians made their peace, syndicating for the purpose of monopolizing the lucrative American black market in alcohol and the many ancillary economic opportunities arising from it (Abadinsky, 2003).

The American Mafia allied the leading Italian families under the umbrella of a central ruling body, which exploited Italy’s considerable expertise in the production of alcoholic beverages to supply the black market created by the Volstead Act. In this endeavor, the medium was the Sicilian Mafia, La Cosa Nostra, which had functioned since the 1860s. With the procurement of alcoholic beverages thus arranged, the American Mafia and its Italian counterpart collaborated to arrange secure international venues of transportation. Then, the Commission developed means of distribution within the thirsty American market, exploiting the failure of Congress to fund law enforcement among the county and municipal agencies that alone were capable of confronting distribution systematically (Abadinsky, 2003; Lender, 1982; Lunde, 1994).

The fourteen years of National Prohibition had important, long-lasting social results. First, the era inspired domestic production and consumption, thus returning intoxicating spirits to the home and bringing them within the view and reach of children. Second, it inspired increased consumption by women. Third, it elevated the retail price of alcoholic beverages, forming notions that it was the nectar of the affluent classes and thus increasing the appeal of alcohol among the poor. Fourth, the lucrative black market in alcohol corrupted large numbers of public officials, among them many police officers. Fifth, and perhaps most importantly, National Prohibition offended the unique American ideal of wild freedom, producing widespread charges that constitutional rights were being
violated, breeding a pervasive spirit of individualism that confronted government, and adding the appeal of "naughtiness" to the alcohol equation (Abadinsky, 2003; Lender, 1982; Rush, 1994).

The Volstead Act was a disaster. Market demand for alcoholic beverages increased steadily during the years of National Prohibition. The American citizenry became ever-more tolerant of alcohol. Faith in government diminished. Juries refused to convict obviously-guilty offenders. Widespread corruption among police officers made a mockery of American law enforcement, breeding charges of hypocrisy that no doubt impact heavily on societal expectations of police officers even today (Lender, 1982). And the federal Bureau of Prisons was forced at last to raise a white flag, embracing the space-saving expedients of probation and parole (Taylor, 1999).

Following the repeal of the Twenty-First Amendment in 1933, respectable corporate executives replaced the "gangsters" who earlier had manufactured and distributed alcoholic beverages, and the nation crept very slowly out of the Great Depression, with tax-generating laborers in the alcohol industry contributing their share. Interestingly, the alcohol industry initially sought to address lingering societal fears of their product, campaigning for responsible consumption much like the brewing corporations of today, warning of the dangers of alcoholism, and donating millions of dollars to research efforts involving alcohol abuse and its effects (Lender, 1982).

Since 1933 the United States Congress has returned to the philosophy of the nation's founders, eschewing federal bans on the manufacture, distribution and consumption of alcoholic beverages, returning sovereignty over such matters to the separate states, and restricting itself to the general regulation of the alcohol industry. For
their part, the separate states have embraced a similar philosophy, choosing regulation over prohibition in their codes and in most cases leaving decisions relating to the legality of alcohol and the terms of its sale to local governments. In modern times, therefore, the consumption of alcohol and the terms of consumption in the United States have been left generally to the discretion of lower tiers of government, thereby exposing the alcohol industry to the diverse social values of local communities.

The state of Mississippi is a good example of this phenomenon. The state code prohibits the sale of alcohol under regulations enforced by the state Alcohol Beverage Control but leaves the state’s 82 counties absolutely sovereign in deciding whether alcohol can be sold within their geographical boundaries and allows these “wet” counties to establish ordinances enhancing the regulations laid out by the State Tax Commission concerning the days and hours when sales are permissible (Mississippi Code § 67-1-3, Mississippi Code § 67-1-37).

Recent Alcohol Consumption Studies in the United States

Despite the many negative influences of National Prohibition, fewer Americans consumed alcohol in 1933 than in 1919, and those who did so consumed less than before. Some attribute the decline in consumption to increased sales of alcoholic beverages with less alcohol content like beer, wine, and ale (Monahan, 1911). Whatever the case, consumption mounted after 1933, propelled by the strange notion that drinking equated with “manhood.” By the 1950s, fathers were celebrating their sons’ maturity (but not that of their daughters) by taking them for their first drinks. Those who could “hold their liquor” (i.e., fail to get physically ill or to make fools of themselves) were seen as “real
men”; those who could not were teased, even admonished. Youth responded accordingly: binge-drinking in college became a rite of passage (Lender, 1982).

Not surprisingly, alcohol consumption, and more especially binge-drinking, has come to be more prevalent among young, male Caucasians who are single. Dawson, Grant, Stinson, and Chou (2004) found no significant difference in the education levels or socio-economic status of binge-drinkers, instead concluding that gender (male) and marital status (single) were the dominant variables. Nelson, Naimi, Brewer, Bolen, and Wells (2004), who studied the binge-drinking rates of American cities, added that the phenomenon was essentially urban in nature, with 30% of binge-drinking concentrated in metropolitan areas. Those in the less-urban South binge-drank less than other regions of the United States. The rate of binge-drinking in Mississippi’s two major metropolitan areas, the three counties comprising the Gulf Coast (13.5%) and Jackson (11.1%), were below the national average for metropolitan binge drinking (14.5%).

Extant literature also suggests that alcohol consumption has progressively become more socially acceptable in the United States since the end of National Prohibition. Indeed, research confirms that although a majority of Americans stigmatize alcoholism, social norms now accept the consumption of alcohol, even excessive amounts of it (Lender, 1982).

Greenfield, Johnson, and Giesbrecht (2004) studied American per capita consumption rates in a thirty-year literature review. They found that per capita consumption increased from 1964-1984, largely due to a growing acceptability of social drinking; that it progressively declined for about a decade; but that it again began to rise
in 1995 – a trend that has continued. Framing these statistics was much geographic disparity: parts of the nation were found to be far more tolerant of alcohol than others. Here, the variables were many and varied, but local social mores, and no doubt local legal restraints, exerted considerable influence on rates of consumption. For example, women within the Southern states held a much less favorable view of overindulgence than those of their gender in other parts of the nation (Greenfield, Johnson, & Giesbrecht).

Moore, Gould, Reuben, Greendale, Carter, Zhou, and Karlamangla (2005) studied a national sample and reported on American drinking habits between 1971 and 1992. They found that consistent drinkers were the largest percentage of the population (43%) followed by consistent abstainers (31%), quitters, people who quit drinking during the length of the study and never drank alcohol again (18%), and mixed patterns, people who had episodes of drinking and abstaining from drinking throughout the study (8%). The consistent drinker was a white, relatively educated, unmarried male with a relatively high income, and the consistent abstainer was a non-smoking, non-white, unemployed, unmarried female of low socio-economic and educational status. These findings, however, did not equate with those relating to excessive drinking. Those who drank excessively were less educated smokers who had modest incomes and lived outside of the southeastern states.

Karlamangla, Zhou, Reuben, Greendale, and Moore (2006) noted important changes in the frequency and volume of alcohol consumed per occasion. Among those who reported alcohol consumption, males who drank five or more drinks per occasion had declined from 15% in 1971 to 6% in 1992, and women who drank four or more drinks per occasion had declined from 8% in 1971 to 2% in 1992. The mean number of
occasions in which alcohol was consumed had also declined from 5 days a week in 1971 to 2.5 days a week in 1992. The aging of the American population was an important variable in these data: as adults aged, the researchers found, they became less likely to drink heavily.

Alcohol Consumption: Cause and Effect

Aseltine & Gore (2000) found that both the frequency Americans consume alcohol and the amount they consume per occasion are determined by social convention, stress, or a combination of both. Purely social phenomena are more applicable among the young, especially those in late adolescence and earlier adulthood, but social convention inspires consumption in later life as well. As in Plato's Athens, therefore, social convention remains a leading causal variable in the consumption of alcohol in the contemporary United States, serving as a mediator of many social interactions (Steele & Southwick, 1985).

The effect of stress on alcohol consumption in the United States, of course, is more difficult to gauge. Heath (1982), who studied those Americans who drink as a form of religious ritual, concluded that such parties probably drank less than those who imbibed to relieve stress. Steele & Southwick (1985) also broached the variable of stress very cautiously, finding that it impacted younger drinkers only marginally and assumed significance, more or less, among those of more mature age. And Hull and Young (1983) found no correlation between alcohol consumption and stress, concluding that the notion that Americans consumed alcohol for medicinal purposes, to relieve tension, was little more than a fiction promulgated by media and popular culture.
More recently, however, Dawson, Grant, and Ruan (2005) have emphasized stress as a major causal variable in alcohol consumption, distinguishing between three types of stress: health-related, legal, and job-related. All three categories of stress were significant predictors of alcohol consumption and of the amount consumed per occasion, the researchers found, but stress did not necessarily equate with the frequency of consumption. Britton (2004), however, disagreed, finding that persons suffering from stress consumed alcohol more frequently and in greater amounts than the general population.

Researchers have likewise come to different conclusions about occupational stress and alcohol consumption. Martin, Blum, and Roman (1992) found no connection between stressful employment and alcohol. Rather, they concluded that drinking was most prevalent among those who held less-rewarding jobs, that the consumption of alcohol was a coping mechanism or form of escape, and that both the frequency of drinking and the volume of alcohol consumed per occasion was positively and significantly related to coping and escapist tactics.

On the other hand, Cooper, Russel, and Frone (1990) as well as Grunberg, Moore, and Greenberg (1998) found only a marginal relationship between occupational stress and alcohol consumption. The nexus, they concluded, was more psychological, tied to perceived low levels of control over life and corresponding anger issues. A perceived lack of control over life might well consist in part of a lack of perceived control in the workplace, but the issue was much broader than one’s occupation. Alcohol, then, was a medium for coping with life in general, not just with stressors in the workplace,
and Grunberg confirmed these findings, actually concluding that those with high job satisfaction consumed more alcohol than those who were dissatisfied.

The effects of alcohol consumption, both mental and physical, are likewise debatable. Jackson and Beaglehole (1995) concluded that males should consume no more than 21 units (8 grams of ethanol) a week, females no more than 4 units a week. Gaziano and Hennekens (1995), however, rejected weekly calculations, observing that such reasoning promoted binge-drinking, consumers concluding that established weekly units could be consumed safely in a single occasion. More responsible, they stressed, were daily limits: three units a day for men and two units for women. Yet, these guidelines apply only to middle-aged people from western countries. Jackson and Beaglehole stressed in 1985 that safe limits of consumption for people under forty years of age did not exist, and that finding is true even today.

Others emphasize the positive effects of alcohol. A 20-year study by Stampfer, Kang, Chen, et al. (2005) concluded that women over the age of 70 who consumed less than 15 grams of ethanol (a little more than one American drink) a day had better cognitive scores than non-drinkers and women who drank more than 15 grams a day. Indeed, the researchers found that women who drank 15 grams or less a day reduced the risk of cognitive impairment by approximately 20%.

Alcohol also has been found to improve mood (Hull & Bond, 1986; Steel, Critchlow, & Liu, 1985), to make people laugh more often (Steele & Southwick, 1985), and to enhance a spirit of social collaboration, making people more willing to help others (Steele, Critchlow, & Liu). Furthermore, Giancola (2006), confounding conventional wisdom, found that alcohol did not increase aggressiveness in most people, and Heath
(1982) added an international perspective, pointing out that alcohol did not promote violence in all heavy-drinking societies.

Other studies have correlated the consumption of alcohol with negative effects on the human psyche. Many researchers have found that alcohol increases aggression in both monkeys (Shively, Grant, & Register, 2002) and humans (Aviles, Earleywine, Pollock, Stratton, & Miller, 2005; Bushman & Cooper, 1990; Hull & Bond, 1986; Steele & Southwick, 1985; Wells & Graham, 2003). In fact, Bushman and Cooper concluded that alcohol increased human aggression more than any other variable. Wells and Graham (2003) concurred, finding that aggressive tendencies were most discernible in people who drank frequently and heavily, and Giancola (2006) stressed that alcohol promoted aggressive tendencies most notably in males who were predisposed to aggression.

Frieze (2005) found that alcohol had a major exacerbating influence on crime in general, more particularly on violent crime, and still more particularly on crime occurring among intimate partners. Aviles et al. (2005) discovered that even low doses of alcohol significantly affected a person's displaced aggression, often causing those who imbibed to lash out at innocent third parties. Others have concluded that alcohol inspires not merely aggression but also other forms of risky behavior (Steele & Southwick, 1985).

Hull and Bond (1986) correlated alcohol with the impairment of human motor function, and Marczinski and Fillmore (2005) found that even low doses of alcohol adversely affected human reaction to environmental stimuli. People who were under the influence of alcohol relied more heavily on environmental cues than others, the
researchers observed, and such people often misread the cues or delayed responses to them, thereby losing critical reaction time while trying to process information.

Alcohol also has been connected to many personality and mood disorders. Petrakis, Gonzalez, Rosenheck, and Krystal (2002) correlated alcohol-dependency with depression; McEvoy (1982) correlated it with dysfunctional thought, including unfounded fears and irrationally aggressive responses.

Studies of the physical effects of alcohol on the human body have also produced disparate findings. Mukamal and Rimm (2001) found that low doses of alcohol helped lower coronary heart disease by almost twenty-five percent. The bulk of present literature, however, emphasizes the negative physiological effects of alcohol.

Oscar-Berman and Shagrin (1997) concluded that long-term alcohol abuse could lead to atrophy of nerve cells and brain shrinkage, resulting in loss of muscular coordination and poor attention span, and that it might also have negative effects on temperature, sleep patterns, coordination, problem-solving skills, visual-spatial abilities, and emotional health. Mezey (1982) linked prolonged heavy consumption of alcohol with gastric mucosa, nutritional deficiencies, intestinal malabsorption, and upper gastrointestinal bleeding (Mezey, 1982). Chanarin (1982) correlated heavy consumption with increased susceptibility to infection and slow rates of recovery from infections. Dennison, Prevet, and Affleck (1980) linked excessive consumption with gastritis, liver disease, cancer in the esophagus, pancreas and stomach, and suppression of testosterone production in males resulting in decreased sexual arousal.
Public Expectations, Social Bonding, and Organizational Stress

Within the Police Subculture

Those who comprise the law enforcement community are no less susceptible to the mental, physiological, and behavioral effects of alcohol than anyone else, and if available data on social convention and occupational stress are valid, one must conclude that police officers are perhaps more at risk than any other segment of American society. Yet, the people of the United States are distinctly Aristotelian in the way they view behavior by police officers, including their consumption of alcohol. Those who enforce the law are subjected to a lofty, altogether unrealistic moral standard of behavior, and even the members of society who champion behavioral determinism and convict rehabilitation are distinctly punitive in their responses to police misbehavior. In fact, the American view of police behavior essentially makes no allowance for the physiological, psychological, social, environmental, and occupational phenomena found by scholars to apply to other segments of the population.

This curious phenomenon is also observable, to a greater or lesser degree, in Great Britain and her other former colonial dependencies, and it is rooted in the peculiarities of the common-law tradition. Unlike the world’s other great legal systems, the common-law system places primary emphasis on procedure, especially in criminal litigation (Fairchild, 1993; Fields & Moore, 1996; Terrill, 1999). Such emphasis reflects the course of English history and constitutional development, which is a chronicle of progressive constraint on the executive branch of government, and the most notable legacy of England’s constitutional history is the theory of Compact or Social Contract
that arose from the great debate between Thomas Hobbes and John Locke during the course of the seventeenth century (Morris, 1997, pp. 107-158; Piest, 1957; Radin, 1936).

Locke's theory was accepted, and the resulting Compact Theory that underlies Anglo-American political and jurisprudential theory considers the rationale on which political society was initially formed. Further, it postulates that self-interested individuals existing in a "state of nature" agreed to collaborate on the basis of cost-benefit, contracting to sacrifice a measure of individual freedom for a guarantee of the "natural" or "absolute" rights of personal security, private property, and individual liberty (Cohen & Feldberg, 1991). Explicit in the theoretical contract are the commands of public law, the alleged violation of which authorizes the state to proceed with an attack — criminal process — on the natural or absolute rights of a contracting citizen. In the event of conviction, the state acts on the principle of breach of contract, acting on the Aristotelian ideal of "corrective justice" and stripping convicted parties of one or more of their absolute rights on the retributive principle of "proportionate reciprocity," which is manifested in the Eighth Amendment's proscription of "cruel and unusual punishments" (Hamilton & Rytina, 1980; Kant, 1785; Posner, 1981).

The state's attack on accused citizens, however, hardly leaves those attacked defenseless. Rather, the contracted terms of social collaboration render such attacks adversative, the police power vested in the executive branch of government being countered by contractual guarantees designed to make accused parties worthy adversaries. These guarantees are both substantive and procedural. Substantively, they form the "civil rights" vested in the entire citizenry; procedurally, they constitute "due process of law," the sum total of legal procedures the state must follow when attacking...
the natural or absolute rights of a citizen (Black, 1990; Blackstone, 1765-1769/1916, p.199-247). Rights, substantive and procedural, limit the authority vested in the executive branch of government and reflect a deep and abiding societal fear of the coercive police power of the state (Ascoli, 1979).

The Constitution of the United States and the Bill of Rights reflect even greater fear of the executive power, and the restraints those documents impose on police officers go far beyond those of Britain or, indeed, any other nation, yesterday or today. The strength of the American law-enforcement apparatus is, first and foremost, defused and weakened by the federated structure of American government, which creates altogether separate police jurisdictions at the federal, state, county/parish, and municipal levels. The debilitating effects of federated governance on the American police power are compounded by the constitutionally-mandated separation-of-powers doctrine, which pits the executive branch of government against both the legislative and judicial branches in an intricate system of checks and balances, a theory that Locke states is necessary for the creation of the social contract (Cohen & Feldberg, 1991).

The American police power is further checked by an expansive number of due-process rights guaranteed by the Constitution and the amendments thereto, especially the Fourth, Fifth, and Sixth Amendments. Those constraints, moreover, have been broadened dramatically by the statutory enactments of the independent American legislative power, especially the federal Congress, and more notably by the power of judicial review vested in the independent judiciary (Weinreb, 2003). The courts comprising the federal judiciary try to strike a balance between the rights of the citizenry and the enforcement of the law. These courts monitor every aspect of police operations,
especially the use of lethal force and the constitutionality of evidence supporting criminal culpability, searching for “overzealous enforcement of law” that may infringe on the rights of the citizenry (Cohen & Feldberg, 1991, p. 55). Because of this, dire common-law tort liability, constitutional tort liability, and criminal liability attend American policing through compensatory and punitive damages gained in Section 1983 lawsuits (Lee, 1987).

Meanwhile, “critical” criminologists represent police officers as the heavy-handed agents of a vast legal conspiracy against minorities and the poor (Williams & McShane, 1999, p. 161-187; Reiman, 2004), and libertarians, rallying under the banner of the American Civil Liberties Union, seldom display understanding that civil liberty is unattainable in the absence of civil restraint and public order (Inbau, 1962). Indeed, so strong are libertarian sympathies among Americans that many oppose the enhancement of the police power even now, in the wake of the death and destruction that attended the terrorist attack on the World Trade Center in 2001. Besides the fact that human lives will be lost in another attack, the libertarian argues that the constitutional restraints on the coercive police powers vested in the executive branch of government should be guaranteed (Munro, 2002).

Such attitudes expose American police officers to standards of behavior that are altogether out of line with the nature of what they do, with the education and training traditionally required of them, and with the financial rewards bestowed on even those who meet society’s unrealistic standards of behavior. Furthermore, in recent years societal expectations have mounted considerably by mass media’s portrayal of police officers as supermen.
Machismo has always been quite popular among the nation's couch-potatoes, and cops like Wyatt Earp, Joe Friday, James Bond, and Dirty Harry have certainly provided a hefty dose of it; but make-believe female crime-fighters like those on the late television show *Charlie's Angels* have hit the streets, pleasing feminists and discontented males alike with displays of martial arts and that subdue brutish males. And a new twist in both literary fiction and television programming has molded police officers not merely macho but also quite cerebral. The mythology of law enforcement, and more broadly that of crime and criminal justice in the United States, is immense (Kappeler, Blumberg, & Potter, 2000).

The result is that the American public does not have a clue about the real nature of police work, presumes thoughtlessly that physiologically-superior, scientifically-attuned, jurisprudentially-adept martial arts experts can be had at a wage roughly equivalent to that paid sanitation workers, and imposes on them standards of behavior that now approach those applied to physicians and the clergy (Bonifacio, 1991; Hooke, 1996). Moreover, while Joe Citizen fully expects police officers to assume a combat mode when confronting those who victimize him, he instinctively requires the "police in a straightjacket approach" when he himself is accused of wrong-doing, screaming to the heavens that his constitutional rights are being violated by jack-booted thugs operating under color of public law (Inbau, 1962; Bonifacio, 1991).

Police work is therefore quite stressful for reasons that have nothing to do with rational fears that a simple traffic stop might result in a life-threatening physical confrontation.
While American police officers have ample reason to fear public disapproval, journalistic criticism, and the hammer of the mighty judiciary, they must also engage in what is often very testy work, dealing with parties who do not abide by societal rules of conduct and sometimes try to kill them. Police officers are therefore sandwiched between the hard realities of the streets, which sometimes demand brutish behavior, and the expectations of the broader society, which seldom tolerate it.

Perhaps nothing illustrates this stand-off more than the “shoot, don’t shoot” exercises that have come to be a major component of police training in recent years. The courts have established legal parameters for the use of lethal force (Weinreb, 2003), police training seeks to apply those parameters to real-life situations, but everyone knows that jurisprudence is one thing, training another thing, and real-life situations quite another, and that such training is of questionable value, perhaps even an operational liability. Police officers are fully aware that a simple traffic stop can result in a physical confrontation, maybe in a fire-fight. They are aware, too, that a physical confrontation or a fire-fight can expose them, their departments, and perhaps the governmental entity for which they work to considerable legal liability, and that even a legal forceful response can create dire problems, maybe even inspire riots. And, above all, they are aware that reluctance to shoot in certain situations can cost them their lives. Danger of one type or another, therefore, confronts the police officer on a daily basis (Territo & Vetter, 1981), and a degree of stress is the inevitable result.

Studies of Stress Focusing on United States Police Officers

Blackmore (1978) found that policing was second only to air traffic control in occupational stress, and Dantzler (1987) ranked law enforcement fifth among the most
stressful occupations in the United States. Violanti (1983) considered the relationship between job experience and stress among police officers, concluding that stress was most notable during the first thirteen years of service and thereafter declined progressively until retirement. Sigler and Thweatt (1997) compared the types and levels of stress among firemen and police officers, finding that the former experienced more occupational stress, the latter more life stress – that extending into all facets of life.

Furthermore, Sigler and Thweatt (1997) discovered that stress was greater among police officers who reported that religion was a major influence in their lives, thereby suggesting that fixed moral and ethical views are in conflict with the operational demands of police work, and more recently Olson & Surrette (2004) found that stress correlated with general anxiety and depression in law enforcement officers.

Other studies have tied stress to the organizational and administrative peculiarities of police departments (Coman & Evans, 1991; Band & Manuele, 1987), and Evans and Coman (1993) actually concluded that such phenomena created more stressors for police officers than did field work. Perceptions that supervisors resisted change and afforded insufficient support were important variables in the equation; less significant were stressors arising from relationships with peers. Violanti and Aaron (1994) likewise found that lack of supervisory support, along with shift-work and insufficient equipment, were powerful stressors.

Another stressor in American law enforcement arises from the manner in which police officers react to the expectations of the broader society. Not surprisingly, they share a feeling of being misunderstood and unappreciated by and isolated from their fellow citizens and are thus inclined to withdraw, forming a subculture that sanctions its
own unique goals and means (Kappeler, Sluder, & Alpert, 1998). These goals are generally consistent with those of the broader society, centering on bringing criminals to justice. The means, however, sometimes run afoul of both societal expectations and the lofty callings of Anglo-American jurisprudence -- the rules that constrain what is considered to be rational conduct in getting the job done.

This phenomenon, which is remarkably similar to the behaviors assigned to differential association theory, anomie theory, and subculture theory by criminologists (Williams & McShane, 1999), breeds among police officers a sense of paranoia, a pervasive psychology of martyrdom, and a degree of hostility to the values of the broader society. Moreover, the way police view themselves is affected by the fiction promoted by popular literature and television programming as well. The police subculture is a bastion of bravery, aggression, and, perhaps most notably, contrived machismo that discourages officers from venting their emotions (Twersky-Glasner, 2005). Scholars thus speak of a “police personality” and ponder how it is formed. Here, there is a nature-versus-nurture debate. Some conclude that the police personality is rooted in the types of people that are attracted to police work and in the types of people that make hiring decisions, arguing that background and personality tests create a group with essentially the same personality (Twerksy-Glasner).

There is, no doubt, some truth in this point of view, but others emphasize the role of nurture, contending that academy training consists of rituals that socialize recruits and teach them the rules of the police subculture, thereby initiating them into the police fraternity (Bonifacio, 1991). Still others maintain that the police personality is formed through day-to-day association with other officers. Garner (1997) focused on the role of
humor in the development of the police personality, finding that it reflected both a fear of being ostracized and a perception of shared danger. Fear of embarrassment produces stories of what not to do, how to avoid the censure of both colleagues and the outside world, and perceptions of shared danger are formed by real-life accounts of traumatic events. Humor is not unique to law enforcement; it is also seen in firemen, emergency room workers, combat soldiers, and others who must deal with danger and the prospect of death on a continuing basis. The result is a certain bravado, a projection of control over what cannot be controlled, and it satisfies personal psychic needs that might well have made a recruit want to be a police officer in the first place (Bonifacio, 1991).

Other notable hallmarks of the police subculture are emphasis on physical fitness, which promotes both occupational efficiency and the image of machismo, and a regimen of social bonding that features the consumption of alcohol. Many officers regularly congregate in bars after work, share their experiences, exhibit their peculiar brand of humor, and thus promote the camaraderie that binds the members of a "brotherhood" (Martin, 1999).

Studies of Alcohol Consumption by United States Police Officers

Why do American police officers drink alcohol? How much do they drink? Does the rate of consumption impact negatively on job performance? Incredibly, these questions remain largely unanswered. There are no known comprehensive empirical studies that measure alcohol consumption among the American law enforcement community (Dietrich & Smith, 1986; Kirshman, 2006), and the result is disparate opinions reflecting time, place, and much iffy perception.
Beehr, Johnson, and Nieva (1995) attributed drinking to the aggressive police personality; Bonifacio (1991) attributed it more specifically to the power needs endemic to that personality, finding that alcohol provided a continuation of stimulation during off-duty down-periods. Territo and Vetter (1981), however, are inclined to believe that police officers consume alcohol for the same reasons others do: to relieve stress and to enhance social bonding with colleagues. The first explanation holds that the consumption of alcohol is a coping mechanism, a means of calming frayed nerves. The second asserts that drinking is a social crutch, a medium for camaraderie and celebration, a tool for overcoming the stressors endemic to the police subculture itself (Martin, 1999; Territo & Vetter). Both are controversial.

Violanti, Marshall, and Howe (1985) correlated stress with the consumption of alcohol among police officers. Beehr, Johnson, and Nieva (1995) agreed, finding that alcohol was a coping mechanism, and Kohan and O’Connor (2002) concluded that alcohol was consumed most notably by those within the police community who had the lowest level of job satisfaction. Violanti (2001), drawing on the conclusions of Bonifacio (1991), found that alcohol consumption was most prevalent among young officers and concluded that it was inspired by the physical and psychological stress occasioned by academy training, which developed only temporary coping mechanisms. Later, Violanti (2004) correlated alcohol consumption, post traumatic stress disorder arising from on-the-job homicides, suicides, and inexperience among police officers, finding that the confluence of these phenomena was most notable in young officers.

Others depreciate the relationship between stress and alcohol consumption and instead emphasize social phenomena, concluding that policing is essentially a drinking
culture. Kraft, Blum, Martin, and Roman (1993) focused on the variable of gender in their study, noting that policing was a male-dominated occupation (80%), that males were more apt to bond via the medium of alcohol than females, and that drinking among police officers was in fact most prevalent among young males. On the other hand, Pendergrass and Ostrove (1986) found no relationship between age, rank, and alcohol consumption but noted that female officers drank more alcohol than women in the general population, thereby suggesting that female officers were influenced by the mores of their more numerous male colleagues. Interestingly, Pendergrass and Ostrove rejected the notion that stress correlated with alcohol consumption among police officers. In fact, those who were assigned to different duties drank less than those whose assignments remained constant, and this fact, they concluded, reflected the fact that varying assignments removed officers from their normal after-shift activities.

Nor do scholars agree on the extent of drinking among police officers or on the effects alcohol have on their job performance. Mandell, Eaton, Anthony, and Garrison (1992) found that drinking by police officers was roughly equivalent to that of other occupations, and Stinson and DeBakey (1992) generally agreed, noting that officers drank only slightly more than others. Likewise, Meyers & Perrine (1996) found no “alcohol culture” among police officers, noting that consumption was relatively modest.

However, Blackmore (1978) reported that two police administrators rated alcohol abuse as the most serious problem confronting law enforcement, estimating that 20% of the officers in their agencies abused alcohol. Territo and Vetter (1981) arrived at a similar conclusion, Pendergrass and Ostrove (1986) observed that there were higher levels of consumption among police officers than among the general population, and
Kirschman (2006) speculated recently that rates of consumption among American police officers might well double those of the general population. Kirschman also concluded that alcohol abuse correlated with suicide among police officers: fifteen percent of those who tried to commit suicide had histories of excessive consumption.

Beutler, Nussbaum, and Meredith (1998) monitored the rates at which police officers consumed alcohol during their first four years of employment. Significantly, they found that consumption increased progressively each year, with 55% of officers being heavy drinkers at the end of the four-year period.

Existing research, then, leads to different conclusions on why American police officers drink alcohol, the extent to which they drink it, and the effects of alcohol consumption on their job performance. The disparate research findings arise from the fact that no comprehensive empirical study has been conducted. That omission is astonishing, given the recent emphasis of the United States government on homeland security, but an informational void exists in other countries as well. Canadian researchers offer little or nothing, and even the British Home Office, which has sponsored a wealth of solid research on police behavior, has failed to examine alcohol consumption among officers. However, several relatively recent studies conducted in Australia have produced some enlightening conclusions.

Australian Studies of Police Alcohol Consumption

Serious research in Australia got underway in 1998, when Richmond, Wodak, Kehoe, and Heather reported their findings on the health of police officers in New South Wales. Their operational definition of "excessive" drinking was "weekly alcohol consumption exceeding 28 drinks for men and 14 drinks for women and/or binge
drinking,” which was defined as 8 drinks for men and 6 for women on single occasions. On those terms, neither excessive nor binge drinking existed across the board among the officers surveyed: male officers reported drinking about 18 drinks per week, female officers about 8. However, almost half of those surveyed drank excessively, men more commonly than women, and binge-drinking was common among two-fifths of males and one-third of females. Officers aged 18-29 were more likely to drink excessively. As age increased, excessive drinking decreased. Only some 8% of men and 15% of women abstained from alcohol.

Richmond, Kehoe, Hailstone, Wodak, and Uebel-Yan (1999) attempted to measure the impact of alcohol on the reported illnesses of Australian police officers, the perceptions of officers about problematic drinking among their peers, and their attitudes toward remedial intervention, but the resulting data were skewed somewhat by the inability of the researchers to obtain a representative sample. Still, the results of the study were relatively significant.

The police officers surveyed did not regard alcohol as a problem. Rather, they saw consumption as a harmless form of self-medication, as a constructive bonding agent among colleagues, and as a medium of compensating themselves for the loss of social interaction with civilians. They wanted neither advice nor treatment and in fact stigmatized treatment, regarding it as a sign of weakness. And, while the researchers correlated excessive consumption of alcohol with the number of days of sick leave taken by officers, they found no relationship between binge-drinking and sick leave (Richmond, Kehoe, Hailstone, Wodak, & Uebel-Yan, 1999).
That study was followed two years later by the publication of the results of a demographic study of alcohol consumption that drew on data which was self-reported by 4,193 responding Australian police officers (Davey, Obst, & Sheehan, 2000a). The survey instrument utilized in the study was the Alcohol Use Disorders Identification Test (AUDIT) employed by the World Health Organization. Participants were 87.9% male and 12.1% female, a ratio that reflected the gender balance of the entire Australian police service at the time of the study.

Comparing the resulting data to that within Australia’s National Household Survey, the researchers concluded that police officers drank less frequently but consumed more alcohol per occasion than the general population. That finding in itself was significant, but the principal importance of the study was the data it provided on the most statistically-significant variables in the drinking equation. The most significant variables were marital status and age, the latter of course equating generally with years of employment and rank.

Married officers were less likely to drink excessively than those who were single, separated from their spouses, or divorced, and officers over the age of 36 were more inclined to consume alcohol on more occasions than younger officers, but not as likely to drink at high-risk levels on those occasions. More inclined to drink at higher risk levels were male officers aged 18-25 years and female officers aged 18-30 years.

Coinciding with these findings were those relating to years of employment and rank. Officers who were within their first 10 years of service consumed more in a sitting than others, as did those holding the entry-level rank of constable. Hence, the profile of the police officer who was most at risk of consuming alcohol at harmful or hazardous
levels was 18-25 years old, male, unmarried or separated, and a constable with four to ten years of service.

The same Australian research team has published three further studies of considerable importance. The first (Davey, Obst, & Sheehan, 2000b) questioned the strength of the relationship between stress and alcohol consumption and instead emphasized social phenomena, concluding that policing was essentially a drinking culture. The following year, Davey, Obst, and Sheehan (2001a) probed causative variables much more fully, finding a correlation between stress and the size of the agencies that employed police officers.

Officers who worked for small, regional agencies had the lowest levels of occupational stress, those who worked for suburban agencies had more, and those who worked for large, metropolitan agencies manifested the highest levels. Within this finding, shift-work was not a significant stressor; rather, the number of hours officers worked, the degree of support they received from their superiors, and unsettling organizational changes were the most important variables. Perceived support reduced stress considerably, and such a perception was strongest in small organizations, weakest in large ones (Davey, Obst, & Sheehan, 2001a).

Interestingly, dangerous duty was not found to be a significant indicator of stress, regardless of the size of the department, although officers who reported the most job satisfaction were most apt to regard dangerous duty as a stressor. This latter finding, the researchers concluded, reflected the psyche of a risk-taker, one who thrives on danger and unpredictability, and it perhaps sheds light on the type of personality that is attracted to law enforcement. The principal indicators of job satisfaction among the officers
surveyed were organizational support, which included that of managers and peers as well as being provided with sufficient equipment, and the support of the public (Davey, Obst, & Sheehan, 2001a).

While stressors among police officers, and not the consumption of alcohol per se, was the principal focus of the study, the researchers highlighted and discussed the fact that data indicated harmful and hazardous drinking levels among female police officers. Indeed, more females than males reported excessive drinking, and this finding suggested changing patterns in alcohol consumption among female officers that demanded further study (Davey, Obst, & Sheehan, 2001a).

Davey, Obst, and Sheehan (2001b) elaborated on these findings later in the year, reporting that fully 30 percent of the Australian police officers surveyed had scored harmful drinking levels on AUDIT. They also correlated alcohol consumption with social interaction among police officers. Most officers spent over 25% of their social time with their coworkers; approximately 10% spent over 75% of the free time with coworkers. And the power of alcohol within the social conventions of the police community was significant. When asked what their colleagues thought of peers who did not drink, 31% of the officers surveyed stated that non-drinkers were viewed as suspicious and unsociable people.

When asked why they drank, officers responded that drinking inspired camaraderie and served as a medium for the celebration of professional accomplishment. Yet, the portions of AUDIT that were designed to measure causation revealed that stress correlated more significantly with harmful levels of consumption than social factors.
Police drank alcohol to relax and to cope with pressures in their lives, the data revealed (Davey, Obst, & Sheehan, 2001b).

Conclusion

Despite Kirshman’s (2006) recent estimate that alcohol consumption among American police officers is at least double that of the general public, there are no valid data that either support or refute his estimate. In fact, the few who have examined alcohol consumption by American police officers agree on virtually nothing – why they drink, how much they drink, or the operational significance of drinking. There have been neither national nor statewide studies, and this review of related literature suggests that what is not known might well be more impressive than what is known.

Furthermore, the only studies that reliably address alcohol consumption by police officers have been conducted in Australia, and what is true “down under” is not necessarily true of the United States. The demographic, environmental, cultural, and political differences between the two nations are immense, and there is also a profound difference in the way Australians and Americans regard their police and view the consumption of alcohol. For example, Australian police academies are equipped with pubs or bars which serve alcohol (Davey, Obst, & Sheehan, 2001b), whereas American academies are not. Still, the research vistas and methodologies of the Australians, if not necessarily their research findings, are of great value to anyone who would examine similar phenomena in the United States.

This study examines alcohol consumption in one American state, Mississippi, and it relies heavily on the earlier work of the Australians, particularly that of Davey, Obst, and Sheehan. The researcher is similarly indebted to the Mississippi Statistical Analysis
Center (MSSAC) in The University of Southern Mississippi. In 2003, the MSSAC conducted a demographical survey of the 383 law enforcement agencies within the state of Mississippi (Thompson, Corzine, Carter, and Trowbridge, 2003). The response rate of the 2003 survey (21%, n = 82) was disappointing, but nevertheless yielded the only demographic information about the population profiled in this study.
CHAPTER III
METHODOLOGY

This study sought (1) to survey the extent to which a representative sample of law enforcement officers employed by municipal, county and state jurisdictions within the state of Mississippi consume alcohol, (2) to shed light on the causative factors that inspire consumption, and (3) to profile demographic variables thereto appertaining. The study is based loosely on a similar study conducted in Australia by Davey, Obst, and Sheehan (2000a).

Research Design

This study was both exploratory and comparative in nature. The exploratory nature of the study is developed by the need to determine the drinking behaviors of the law enforcement officers in Mississippi. The variables researched were amount of alcohol consumed per occasion and number of occasions, reported reasons to drink alcohol, and health risk of alcohol drinking. The comparative aspect of this study occurred when the researcher made comparisons between Mississippi law enforcement officers’ drinking behaviors and the variables: gender, rank, years in service, and type of department. The sample was compared to the general population in the United States which is presented in National Institute of Alcohol Abuse and Alcoholism’s 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) survey (2002).

Participants

The participants were full time Mississippi police officers, sheriff’s deputies, and state police officers who self report their work either as field officers or administrators.
These participants include those who are Mississippi Board of Minimum Standards certified and officers who are in their first years of law enforcement service but not yet certified officers. This includes all law enforcement officers who are subject to Mississippi Code § 45-6-11. This sample did not include paid employees of the departments or agencies who self report their work as dispatchers or correctional officers.

The actual population number of law enforcement officers in Mississippi is unknown. The Mississippi law enforcement departments and agencies do not have to report this number to any central reporting agency. At this time in Mississippi, there are approximately 82 county sheriff's departments, 205 municipal police departments, and 13 state agencies with law enforcement units.

The 82 Mississippi counties were stratified by size (populations under 15,000, populations between 15,000 and 40,000, and populations above 40,000) and region (Mississippi Supreme Court Judicial regions one, two and three, see Figure 1 for map of regions). A computer generated random sample was selected (SPSS 12.0, 2003). All known municipal and county departments were contacted, and the administrator was asked if he or she would allow his or her officers to participate in the study. The researcher conveniently picked three of the largest state enforcement agencies to participate in the study.
Figure 1. Mississippi Supreme Court Judicial District Map
Instrument

A survey instrument to determine the consumption behaviors of these law enforcement officers was designed. The instrument can be completed in less than ten (10) minutes. A copy of the instrument appears as Appendix A. The dissertation committee was assembled to add clarity and validity to the study. The researcher adjusted the questionnaire and submitted it to the Institutional Review Board at The University of Southern Mississippi. Upon approval, a pilot study was conducted to evaluate the instrument for reliability and validity. The pilot study involved 25 sheriff's deputies from a county with a population of over 40,000. The instrument's reliability was determined using Cronbach's alpha (see table 1).

Table 1

Reliability of the Survey Instrument

<table>
<thead>
<tr>
<th>Instrument section</th>
<th>Number of complete responses</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasons to drink alcohol</td>
<td>25</td>
<td>.973</td>
</tr>
<tr>
<td>Scored AUDIT</td>
<td>24</td>
<td>.783</td>
</tr>
</tbody>
</table>

The self-report questionnaire contains three sections designed to obtain demographics, drinking behaviors, and identify officers who may have hazardous or harmful patterns of alcohol consumption.

The first section of the instrument consists of twelve demographic questions. The second section of the instrument contains questions pertaining to amount and occasions of consumption. The instrument defines a drink to be a 12-ounce can or bottle of beer, a four-ounce glass of wine, a 12 ounce bottle or can of wine cooler, or a shot of liquor. This
section consists of four drinking-related questions and one question related to the reasoning behind consumption of alcohol with 14 sub-questions. The sub-questions to this item consist of 14 statements pertaining to the specific reasons the respondent consumes alcohol. These sub-questions were developed using the current theories of alcohol consumption in police studies. The two main theories are social-related factors (Davey, Obst, & Sheehan, 2001b) and stress-related factors (Kohan & O’Connor, 2002; Violanti, 2004).

The third section of the instrument contains the World Health Organization’s Alcohol Use Disorders Identification Test (AUDIT) (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001), which has established validity in identifying persons who have harmful and hazardous alcohol consumption levels. AUDIT has been found to be an appropriate and reliable measure of alcohol use across gender, age, and race (Powell & McInness, 1994; Steinbauer, Cantor, Holzer, & Volk, 1998; Volk, Steinbauer, Cantor, & Holzer, 1997) as well as an appropriate indicator of alcohol misuse in the United States (Dawson, Grant, Stinson, & Zhou, 2004) and in the police profession (Davey, Obst, & Sheehan, 2000c). Audit has a high test-retest reliability (r=.86), as well as a high correlation coefficient (r=.78) with the CAGE and Short Michigan Alcoholism Screening Test (MAST) (r=.88) (Hays, Merz, & Nicholas, 1995) Permission to use and publish the AUDIT screening test was given to the researcher by Marie Helene Schreiber of the World Health Organization. Correspondence and approval to use and publish appears as Appendix B.

The AUDIT screening test consists of 10 questions which identify people with risky alcohol consumption. The first three questions ask how often the respondent
consumes alcohol, how many drinks the respondent consumes on occasion, and how often the respondent reported that he or she drank excessively. The current instrument asks those questions in section two. When the AUDIT was scored by hand, the researcher determined the AUDIT score to those questions and added those questions into the total score. The final seven AUDIT questions made up the third section of the instrument. The seven AUDIT questions are separated into two more subsets because of answers and scoring. The seven AUDIT questions were matched with the three usage questions and scored pursuant to the World Health Organization’s guidelines (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) for a final AUDIT score for each respondent. The answer to the current instrument question, (1) “How often do you drink alcoholic beverage”, were rescored pursuant to AUDIT guidelines as (0) Never, (1) monthly or less, (2) 2-4 times a month, (3) 2-3 times a week, or (4) 4 or more times a week. Question number two (2), “On an occasion that you drink alcohol, how many drinks do you typically have?” is recommended to be scored as follows: (0) 1 to 2, (1) 3 or 4, (2) 5 or 6, (3) 7 to 9, or (4) 10 or more. WHO determines the amount of the alcohol in a drink to be 10 g. The United States has approximately 14 g of alcohol in a standard drink. Therefore, WHO has advised to determine the difference and change the answers accordingly. Because of WHO’s recommendations, the researcher scored this question as follows: (0) 0 to 1 drink, (1) 2 to 3 drinks, (2) 4 to 5 drinks, (3) 6 to 7 drinks, and (4) 8 or more drinks. Question “B” three (3) of the current instrument, “Within the past month, how often have you had five or more drinks in one sitting?” was rescoring into the AUDIT instrument. The corresponding scores are as follows: answers “I have never had five or more drinks in a sitting” as (0) never, “I have not had a drink in the last month” as (1)
less than monthly, “1 to 2 occasions” and “3 to 5 occasions” as (2) monthly, “6 to 9 occasions” and “10 to 19 occasions” as (3) weekly, and “20 to 29 occasions” and “30 or more times” as (4) daily or almost daily. Section B questions 6-10, which are the AUDIT screening test questions 4-8, were scored into the same scale with no change to the participant’s answers. The final two AUDIT questions (current instrument Section B, questions 11 and 12) are scored as follows: (0) no, (2) yes, but not in the last year, and (4) yes, during the last year.

The scores for each of the ten questions were added together to get the individual’s final AUDIT score. This score determines the amount of alcohol consumption risk according to the World Heath Organization’s AUDIT instrument. The World Health Organization has suggested that the scoring of the AUDIT screening test be as follows: 0-7 not at risk level, 8-15 possible harmful risk levels, 16-19 possible hazardous drinking levels, and 20 or above possible alcohol dependence (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001).

Upon approval of the proposal, the researcher submitted the instrument to the Institutional Review Board of The University of Southern Mississippi and received approval to distribute the instrument. This approval appears as Appendix C.

Procedures

Once approval was given by the Institutional Review Board, the researcher conducted a pilot study to evaluate the reliability and validity of the instrument. The pilot study helped to determine if there was need for adjustments for clarity before the survey began.
Upon getting approval from the police administrator, the researcher approached the group of officers, explain the premise of the study, and ask for their voluntary participation. In a short statement, the researcher assured the officers that their answers were held confidential and anonymous. The officers were told that they and their administrator were able to obtain a copy of the aggregate study at the completion. The researcher assured them that the administrator was not able to determine any individual answer from the aggregate results. Besides the oral information, the officers received a paper copy of the informed consent document with information on how to obtain copies of the results, how to contact the researcher, and what to do if they felt an adverse reaction to participating in the study. The officers were notified that consent to participate was assumed from completion and returning of the questionnaire. A copy of the informed consent document appears as Appendix D.

If the administrator decided to personally distribute and collect the questionnaires, the researcher delivered the questionnaires to the administrator in individual 9" x 12" envelopes. Besides the questionnaire, the envelopes also included the informed consent form. A letter to the administrator accompanied the envelopes with a brief description to remind the administrator about the study, instructions to tell the participants that the questionnaire was purely voluntary, to tell them to keep the cover page for future reference, and to tell the participants to seal the envelopes and how to return them to the researcher (either through the administrator or the U.S. mail). A copy of this letter appears as Appendix E. Only two of the fifty-three contacted administrators replied that they would did not want to participate in the study.
If the administrator was not able to be contacted within three phone calls, the researcher would send a letter describing the study and the appropriate number of questionnaires in self addressed stamped 9” x 12” envelopes. The letter explained the study, allowed the administrator to decide not to participate by calling the researcher, and asking the administrator to give the envelopes (containing the questionnaire and informed consent form) to the officers. The administrator is asked to tell the participants that the study is voluntary and completely anonymous because they would be mailing back the questionnaire directly to the researcher. A copy of the letter appears as Appendix F. No administrators called the researcher and chose not to participate.

The three state administrators were then contacted and asked if they would like to participate. The agency administrators received a phone call, sent an email that described the study, and received a follow-up call to find out if they would like to participate. A copy of the phone monolog is included as Appendix G. A copy of the email appears as Appendix H. Two of the administrators agreed to participate. One of the administrators was never able to be contacted. This agency was not used. Therefore, only two state agencies participated in the study. The researcher contacted the local administrators which agreed to personally disseminate the questionnaires and arrange for return.

After receiving the approval to participate from the administrators of the state agencies, the researcher contacted the local administrators for those agencies to set up appointments or to work out arrangements for them to personally disseminate the questionnaires. All of the local administrators agreed to personally disseminate the questionnaires. These questionnaires and cover letters (enclosed in 9”x12” envelopes) were delivered to the local administrators. A letter briefly describing the study with
instructions to tell the participants that the questionnaire is purely voluntary, to tell them to keep the cover page for future reference, and to tell the participants to seal the envelopes and how to return them to the researcher (either through the administrator or the U.S. mail) accompanied the questionnaires (see Appendix E).

The participants received a self report questionnaire. The questionnaire consisted of 25 questions, which asked about demographics, drinking behaviors, and the AUDIT test. The questionnaire took approximately 10 minutes of the respondent’s time. There was no expense to the respondents. However, since this survey occurred at the agency or department, the department may have lost personnel time and space during the administration of the study. The researcher did not reimburse the agencies for this time or space, and did not offer officers any incentive for participating in the study.

Limitations

The study is limited by the refusal of two of the randomly-selected agencies to participate in the study. The self-reported study and the negative stigma associated with heavy drinking in society also may have hindered the officers from honestly reporting the answers to the questionnaire. This could have led to distorted answers as well as not being able to correctly profile the officers at harmful and hazardous drinking levels. Other researchers have found that self-reported alcohol use questionnaires do provide an accurate account of the consumption of the respondents if the respondents truly believe that the study is confidential and anonymous. However, these studies have been used only on college students and people outside the police profession. Participants in the field of law enforcement at this time have not been studied on their accuracy of self-
reporting alcohol consumption on questionnaires. One reason for this is the limited amount of research on law enforcement alcohol consumption.

While the researcher conducted the on site survey, only the officers that were on duty were able to be approached. This left a large number of other officers from that department without the option to be a participant. Although this method allowed for greater response rate, the administrator-disseminated questionnaires allow more officers the ability to participate.

Data Analysis

The researcher entered all data into SPSS 12.0 for Windows (2003). The data were also analyzed using this program. Descriptive statistics to analyze the mean, frequencies, and standard deviations for all answers were given before the research questions were answered. The research questions were answered in the following manner.

**Research Question 1:** What is the profile of Mississippi law enforcement officers' alcohol consumption?

**Analysis for Research Question 1:** Frequencies and demographics were tabulated to determine the consumption behavior of the sample.

**Research Question 2:** Is this profile different from that of the general population?

**Analysis for Research Question 2:** A single sample t-test was conducted to determine if there is a significant difference between the police officers' daily ethanol
intake and the general population sample found in the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) 2001-2002 survey.

**Research Question 3:** Is this profile the same in all sizes of departments?

**Analysis for Research Question 3:** A MANOVA was conducted to determine if sizes of department shows statistically significant differences in number of drinks, number of occasions, number of times binge drinking, and AUDIT test results.

**Research Question 4:** Is this profile the same in all types of departments?

**Analysis for Research Question 4:** A MANOVA was conducted to determine if type of department shows statistically significant differences in number of drinks, number of occasions, number of times binge drinking, and AUDIT test results.

**Research Question 5:** Is this profile the same in all judicial districts?

**Analysis for Research Question 5:** A MANOVA was conducted to determine if region of judicial district shows statistically significant differences in number of drinks, number of occasions, number of times binge drinking, and AUDIT test results.

**Research Question 6:** Is there a regional difference in why these officers drink alcohol?

**Analysis for Research Question 6:** A factor analysis on the sub-questions of item B 5 was conducted to determine the officers’ reasoning behind alcohol consumption.

**Research Question 7:** What is the profile of the group of Mississippi law enforcement officers who are most at risk because of their drinking behaviors?

**Analysis for Research Question 7:** Using AUDIT’s scores to rank groups (no risk, harmful, and hazardous), chi-square (for nominal data) and MANOVA (for ratio data) were utilized to see if there are statistically significant differences between groups.
Data were collected from police and sheriff's departments and state officers located in 21 stratified then randomly selected Mississippi counties. All known police and sheriff's departments in those counties were called and asked to participate. The three state agencies were selected because of size and structure of department. Only those state officers in the selected counties were invited to participate.

The researcher distributed questionnaires throughout a three month data collection period. Of the 1,328 questionnaires distributed, 663 (49.92%) were returned. Of those returned, four (0.6%) questionnaires contained over half of the data missing. This missing data was attributed to participants who missed pages in the questionnaire booklet. Even though half of the data were missing for these participants, the data was mostly demographic; and the researcher believed that there was enough data to remain in the analyses.

Demographic Data

More questionnaires (78.3%) came from counties with populations of more than 40,000 (see Table 2) than smaller populated counties. More responses came from the Northern Judicial district (37.7%), the third judicial district, than other districts. However, the participation across the districts was relatively equal. More police department officers (See Table 3) participated than officers of sheriff's departments or state agencies. The sample's demographic data are provided in Table 3.
Table 2

*Participation by Stratification*

<table>
<thead>
<tr>
<th>Stratified by:</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
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<td>Population of County</td>
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<td></td>
</tr>
<tr>
<td>Under 15,000</td>
<td>48</td>
<td>7.2</td>
</tr>
<tr>
<td>15,000-40,000</td>
<td>96</td>
<td>14.5</td>
</tr>
<tr>
<td>Over 40,000</td>
<td>519</td>
<td>78.3</td>
</tr>
<tr>
<td>No response</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>District of County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Judicial</td>
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<td>29.3</td>
</tr>
<tr>
<td>Second Judicial</td>
<td>219</td>
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<tr>
<td>Third Judicial</td>
<td>250</td>
<td>37.7</td>
</tr>
<tr>
<td>No response</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The sample consisted of more males (86.6%) than females (11.2%). The sample also consisted of more Caucasians (70.9%), married officers (65.8%), and those who have earned some college education (53.3%). This data was compared to that of the statistical data from the Mississippi Statistical Analysis Center (Thompson, Corzine, Carter, and Trowbridge, 2003) (Table 4) and was found to be a good representation of the Mississippi law enforcement population.

The demographics were cross-tabulated by type (see Table 5), region (see Table 6), and population of county (see Table 7). The researcher did not find any recognizable differences in type of department or size of county. However, the researcher did notice
that more black officers responded to the questionnaire than white officers in the first judicial region. In the other two regions, there were more white respondents than black respondents. There were also more officers who reported having Bachelors degrees or higher in the first judicial region than in the other two regions. Most of the officers who participated in the survey were self reported as patrol officers or deputies (62.9\%) (see Tables 5, 6 & 7). The mean age of the sample (see Table 8) was 39.02 years (SD 10.76). The officers had an average of 11.31 years in law enforcement and worked an average of 46 hours a week.

Table 3

*Participation by Type of Department*

<table>
<thead>
<tr>
<th>Type of Department</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Department</td>
<td>420</td>
<td>63.3%</td>
</tr>
<tr>
<td>County Sheriff</td>
<td>205</td>
<td>30.9%</td>
</tr>
<tr>
<td>State Law Enforcement</td>
<td>30</td>
<td>4.5%</td>
</tr>
<tr>
<td>No Response</td>
<td>8</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

The officers drank an average of 4.8 times (see Table 8) a month. On those occasions drinking, the officers drank an average of 2.79 drinks. The researcher calculated the officers’ AUDIT (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) score by adding instrument items B6, B7, B8, B9, B10, B11, B12, and rescoring items B1, B2 and B3 into AUDIT recommended guidelines and adding those to the total score. The average AUDIT score for the officers was 4.33.
Table 4

*Frequency and percentages of sample demographics as Compared to Demographic Information provided by Mississippi SAC*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
<th>MS SAC Percentage*</th>
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</thead>
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<tr>
<td>Gender</td>
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<td></td>
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</tr>
<tr>
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<td>574</td>
<td>86.6</td>
<td>86.42</td>
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<td>74</td>
<td>11.2</td>
<td>13.58</td>
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<td>15</td>
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<td></td>
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<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>470</td>
<td>70.9</td>
<td>68.85</td>
</tr>
<tr>
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<td>173</td>
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<td>34.23</td>
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<td>Hispanic</td>
<td>6</td>
<td>.9</td>
<td>.007</td>
</tr>
<tr>
<td>Other</td>
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<td>1.1</td>
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<tr>
<td>No Response</td>
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<td>1.1</td>
<td></td>
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<tr>
<td>Marital Status</td>
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<td></td>
</tr>
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<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>74</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td>No Response</td>
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<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Highest Education Completed</td>
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<td></td>
</tr>
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<td>High School Diploma</td>
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<td></td>
</tr>
<tr>
<td>Some College</td>
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<td>53.3</td>
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</tr>
<tr>
<td>Bachelor’s Degree</td>
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<td>Graduate Degree</td>
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<tr>
<td>No Response</td>
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<td></td>
</tr>
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*Note: The MS Statistical Analysis Center populations did not add up to equivalent percentages.
Table 5

Demographics by Type of Department

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<tr>
<th>Gender</th>
<th>Police department</th>
<th>County sheriff</th>
<th>State law enforcement</th>
<th>Total</th>
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<tbody>
<tr>
<td>Male</td>
<td>373</td>
<td>176</td>
<td>22</td>
<td>571</td>
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<tr>
<td>Female</td>
<td>40</td>
<td>26</td>
<td>7</td>
<td>73</td>
</tr>
<tr>
<td>Total</td>
<td>413</td>
<td>202</td>
<td>29</td>
<td>644</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>280</td>
<td>128</td>
<td>4</td>
<td>6</td>
<td>418</td>
</tr>
<tr>
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<td>167</td>
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<td>204</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>467</td>
<td>172</td>
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<td>7</td>
<td>652</td>
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</table>

<table>
<thead>
<tr>
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<th>Divorced</th>
<th>Widowed</th>
<th>Total</th>
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<td>272</td>
<td>44</td>
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<td>417</td>
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<td></td>
<td>32</td>
<td>142</td>
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<td>2</td>
<td>204</td>
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<td></td>
<td>8</td>
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<td>2</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>140</td>
<td>434</td>
<td>74</td>
<td>3</td>
<td>651</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>highest education completed</th>
<th>some high school</th>
<th>GED</th>
<th>high school diploma</th>
<th>some college</th>
<th>Bachelors</th>
<th>graduate degree</th>
<th>Total</th>
</tr>
</thead>
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<td></td>
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<td>67</td>
<td>232</td>
<td>90</td>
<td>13</td>
<td>420</td>
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<td>1</td>
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<td>194</td>
<td>25</td>
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<td>205</td>
</tr>
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<td></td>
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<td>1</td>
<td>3</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td>122</td>
<td>348</td>
<td>127</td>
<td>19</td>
<td>655</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current rank</th>
<th>Patrol officer</th>
<th>Sergeant</th>
<th>Lieutenant</th>
<th>Captain</th>
<th>Major</th>
<th>Administration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>70</td>
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<td>0</td>
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<td>199</td>
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<td>2</td>
<td>32</td>
<td>639</td>
</tr>
</tbody>
</table>

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Table 6

Demographics by Judicial District

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<tr>
<th></th>
<th>First judicial</th>
<th>Second judicial</th>
<th>Third judicial</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Gender</td>
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<td></td>
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<td></td>
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<tr>
<td>Male</td>
<td>166</td>
<td>203</td>
<td>205</td>
<td>574</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>14</td>
<td>38</td>
<td>74</td>
</tr>
<tr>
<td>Total</td>
<td>188</td>
<td>217</td>
<td>243</td>
<td>648</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>89</td>
<td>184</td>
<td>197</td>
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<tr>
<td>Black</td>
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<td>28</td>
<td>47</td>
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<td>Hispanic</td>
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<td>6</td>
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<tr>
<td>Other</td>
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<td>Total</td>
<td>190</td>
<td>219</td>
<td>247</td>
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</tr>
<tr>
<td>Marital Status</td>
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<td>31</td>
<td>74</td>
</tr>
<tr>
<td>Widowed</td>
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<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>190</td>
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<td>248</td>
<td>655</td>
</tr>
<tr>
<td>Highest education completed</td>
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<td>some high school</td>
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<td>4</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>GED</td>
<td>6</td>
<td>7</td>
<td>21</td>
<td>34</td>
</tr>
<tr>
<td>high school diploma</td>
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<td>45</td>
<td>53</td>
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<tr>
<td>some college</td>
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<td>120</td>
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<td>351</td>
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<td>Bachelors</td>
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<td>graduate degree</td>
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</tr>
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<td>Total</td>
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<td>Current rank</td>
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<td>Patrol officer</td>
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<td>2</td>
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<td>Total</td>
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<td>216</td>
<td>242</td>
<td>643</td>
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</table>
Table 7

Demographics by Population of County

<table>
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<tr>
<th></th>
<th>Population of county</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Under 15,000</td>
<td>15,000-40,000</td>
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<tr>
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<tr>
<td>Male</td>
<td>41</td>
<td>90</td>
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<tr>
<td>Female</td>
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<td>Total</td>
<td>47</td>
<td>91</td>
</tr>
<tr>
<td>Race</td>
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<td>19</td>
<td>66</td>
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<tr>
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<td>27</td>
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<tr>
<td>Hispanic</td>
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<td>0</td>
</tr>
<tr>
<td>Other</td>
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<td>2</td>
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<tr>
<td>Total</td>
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</tr>
<tr>
<td>Marital Status</td>
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<tr>
<td>Single</td>
<td>12</td>
<td>14</td>
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<tr>
<td>Married</td>
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<td>66</td>
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<tr>
<td>Divorced</td>
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<td>Total</td>
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<tr>
<td>completed</td>
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<td></td>
</tr>
<tr>
<td>some high school</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GED</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>high school diploma</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>some college</td>
<td>22</td>
<td>54</td>
</tr>
<tr>
<td>Bachelors</td>
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<td>15</td>
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<tr>
<td>graduate degree</td>
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<td>1</td>
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<td>Total</td>
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<td>95</td>
</tr>
<tr>
<td>Current rank</td>
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<tr>
<td>Patrol officer</td>
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<tr>
<td>Sergeant</td>
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<td>12</td>
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<tr>
<td>Lieutenant</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Captain</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Major</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Administration</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>91</td>
</tr>
</tbody>
</table>

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Table 8

*Descriptive Statistics of Full Sample*

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>647</td>
<td>21</td>
<td>75</td>
<td>39.02</td>
<td>10.759</td>
</tr>
<tr>
<td>Years in Law Enforcement</td>
<td>657</td>
<td>.08</td>
<td>43.00</td>
<td>11.3115</td>
<td>8.24978</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>652</td>
<td>8</td>
<td>160</td>
<td>46.13</td>
<td>13.126</td>
</tr>
<tr>
<td>Drinking Occasions per Month</td>
<td>646</td>
<td>.00</td>
<td>80.00</td>
<td>4.8179</td>
<td>8.42671</td>
</tr>
<tr>
<td>Drinks per occasions</td>
<td>637</td>
<td>.00</td>
<td>20.00</td>
<td>2.7936</td>
<td>2.88651</td>
</tr>
<tr>
<td>AUDIT Score</td>
<td>606</td>
<td>.00</td>
<td>26.00</td>
<td>4.3251</td>
<td>3.93185</td>
</tr>
</tbody>
</table>

**Statistical Results**

The researcher inquired about six separate issues in this project. Using SPSS 12.0 for Windows (2003), the researcher analyzed the mean, standard deviation and frequencies for all demographics (see preceding tables). The research questions are restated as follows:

**Research Question 1:** What is the profile of Mississippi law enforcement officers' alcohol consumption?

**Decision for Research Question 1:** The minimum, maximum, and mean for the officers' alcohol consumption were reported in Table 8. Mississippi officers reported...
drinking an average of 4.82 times per month, (SD= 8.42). Many of them drank only monthly or less (n=317, 46.5%). However, 24 officers (3.9%) reported drinking 7 days a week or more.

The officers reported drinking an average of 2.79 drinks per occasion (SD= 2.89). Many of the officers responded that they did not currently drink alcohol (n=157, 23.7%), and most did not report binge drinking (5 or more drinks in a row) during a typical drinking occasion (77.2%). However, some officers did report binge drinking (19.1%) when they did drink alcohol.

The mean AUDIT score for the officers was 4.33(SD=3.93). However, many of the officers (20.1%) had AUDIT scores of zero (see Table 9), which represents abstinence from alcohol. Concurrently, 73.7% of the respondents scored between 0 and 7 which put them at “no risk” of alcohol problems using the AUDIT instrument. Additionally, 16.8% of officers scored between 8 and 15 on the AUDIT instrument, which labeled them at a “harmful risk” level for alcohol problems. Only 1% of the respondents scored between 16 and 19 on the AUDIT instrument which labeled them at “hazardous risk” levels for alcohol problems and 0.4% had “possible alcohol dependency” scores of 20 or more.
<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Score</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Risk of Alcohol Problems</td>
<td>0.00</td>
<td>133</td>
<td>20.1</td>
</tr>
<tr>
<td></td>
<td>1.00</td>
<td>27</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>70</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>3.00</td>
<td>75</td>
<td>11.3</td>
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<td></td>
<td>4.00</td>
<td>55</td>
<td>8.3</td>
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<td></td>
<td>5.00</td>
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<td>6.3</td>
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<td>6.5</td>
</tr>
<tr>
<td></td>
<td>7.00</td>
<td>43</td>
<td>6.5</td>
</tr>
<tr>
<td>Harmful Risk of Alcohol Problems</td>
<td>8.00</td>
<td>29</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>9.00</td>
<td>30</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>10.00</td>
<td>17</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>11.00</td>
<td>15</td>
<td>2.3</td>
</tr>
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<td></td>
<td>12.00</td>
<td>7</td>
<td>1.1</td>
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<tr>
<td></td>
<td>13.00</td>
<td>6</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>14.00</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>15.00</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>Hazardous Risk of Alcohol Problems</td>
<td>17.00</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>18.00</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>19.00</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Possible Alcohol Dependency</td>
<td>22.00</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>26.00</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>No Response</td>
<td></td>
<td>57</td>
<td>8.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>663</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Scale 0 – 40

**Research Question 2:** Is this profile different from that of the general population?

**Analysis for Research Question 2:** A single sample \( t \)-test was conducted to determine if there is a significant difference between the police officers’ daily ethanol intake and the general population sample found in the National Institute of Alcohol Abuse and Alcoholism’s 2001-2002 National Epidemiologic Survey on Alcohol and
Related Conditions (NESARC) survey (2002). The researcher obtained data from the NIAAA 2001-2002 NESARC survey and took the mean of the daily ethanol intake after deleting two outliers of over 100 units daily. The NESARC researchers were able to calculate the daily ethanol intake of 26,653 drinkers of the original 43,093 randomly selected members of the U.S. general population. The mean for this group was 0.553 grams of ethanol per day. The group did not include the abstainers so the researcher changed the “missing answer” with that of zero for those that reported abstaining earlier in the questionnaire. The mean for this population was 0.342 grams per day. The police sample group daily alcohol intake was then calculated by multiplying the monthly number of occasions by 12 (months) multiplied by number per occasions by .40 (grams) and dividing that number by 365 (days). The means and standard deviations of both groups are found in Table 10. The researcher conducted the single sample t-test and found no significant difference in the daily ethanol intake of the sample of the officers compared to the NESARC general population sample, \( t(629) = -1.639, p = .102 \). When the means were analyzed the general population mean was actually more than that of the police sample.

Table 10

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NESARC population</td>
<td>43091</td>
<td>.00</td>
<td>76.823</td>
<td>0.342</td>
<td>1.244</td>
</tr>
<tr>
<td>Police sample</td>
<td>630</td>
<td>.00</td>
<td>6.73</td>
<td>0.295</td>
<td>.728</td>
</tr>
</tbody>
</table>

Research Question 3: Is this profile the same in departments in counties of different populations?
**Decision for Research Question 3:** A MANOVA was conducted to determine if population of county shows statistically significant differences in number of drinks, number of occasions, number of times binge consumptions, and AUDIT test results. The tests of homogeneity of variance and co-variance were not satisfied so the researcher took a random sample of 55 officers from the officers in counties with populations of 15,000 – 40,000 and 55 officers from the officers in the counties with populations of over 40,000. This sample yielded no statistically significant difference the officer’s alcohol consumption based on the size of the county in which the department was located, Pillai’s $F (8, 280) = 1.43, p=.183$. In spite of the smaller sample size, the Box’s $M$ was still found to violate the assumption of homogeneity of covariance.

**Research Question 4:** Is this profile the same in all types of departments?

**Analysis for Research Question 4:** A MANOVA was conducted to determine if type of department shows statistically significant differences in number of drinks, number of occasions, number of times binge drinking, and AUDIT test results. The tests of homogeneity of co-variance was not satisfied so the researcher took a random sample of 45 officers from the police department and 45 officers from the sheriff’s department. This sample yielded no statistically significant difference in the officer’s alcohol consumption as a function of type of department, Pillai’s $F (8, 198) = 0.72, p=.67$. In spite of the smaller sample size, the Box’s $M$ was still found in violation of the assumption of homogeneity of covariance.

**Research Question 5:** Is this profile the same in all judicial districts?
**Analysis for Research Question 5:** A MANOVA was conducted to determine if region of judicial district results in statistically significant differences in number of drinks, number of occasions, number of times binge drinking, and AUDIT test results. The researcher found that there was no statistically significant difference in location of the officer and the officer's alcohol consumption, Pillai's $F(8, 1192) = 1.591, p = .123$.

**Research Question 6:** Is there a regional difference in why these officers drink alcohol?

**Analysis for Research Question 6:** The sub-questions of B5 were analyzed for means and standard deviations. These values are shown in Table 11. An exploratory factor analysis on the sub-questions of item B5 was conducted to determine the officers' reasoning behind alcohol consumption. The Kaiser–Meyer–Olkin measure (KMO) was 0.895 and the Bartlett was significant. The data best fit in an Oblimin solution with a Kaiser rotation with an Eigen value greater than one because the researcher found that the data were interrelated to each other. Three factors were found (see Table 12). The researcher named these three factors stressed, social animal and fitting in. These three factors accounted for 59.39% of the variability. All 14 sub questions loaded into these three factors. The Cronbach alphas for the three factors were each above .70.

A MANOVA was conducted to find if any or all of these factors differ in relation to judicial district (see Table 13 for descriptive). There was no significant difference found, $F(6, 842) = .75, p = .61$. 

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### Table 11

*Descriptive of Reasons to Drink Alcohol (n=425)*

<table>
<thead>
<tr>
<th>Reason</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>to celebrate</td>
<td>1.71</td>
<td>.869</td>
</tr>
<tr>
<td>there’s nothing else to do</td>
<td>1.13</td>
<td>.452</td>
</tr>
<tr>
<td>everyone else is doing it</td>
<td>1.18</td>
<td>.485</td>
</tr>
<tr>
<td>to relax after a shift</td>
<td>1.48</td>
<td>.795</td>
</tr>
<tr>
<td>to get along better with coworkers</td>
<td>1.10</td>
<td>.423</td>
</tr>
<tr>
<td>as a reward for good work</td>
<td>1.20</td>
<td>.572</td>
</tr>
<tr>
<td>I like the taste</td>
<td>1.84</td>
<td>1.024</td>
</tr>
<tr>
<td>to party with friends</td>
<td>1.76</td>
<td>.948</td>
</tr>
<tr>
<td>to calm down after a difficult shift</td>
<td>1.44</td>
<td>.799</td>
</tr>
<tr>
<td>to mingle better with the opposite sex</td>
<td>1.26</td>
<td>.618</td>
</tr>
<tr>
<td>to get away from current problems</td>
<td>1.23</td>
<td>.633</td>
</tr>
<tr>
<td>because its available</td>
<td>1.23</td>
<td>.558</td>
</tr>
<tr>
<td>to relieve tension</td>
<td>1.48</td>
<td>.786</td>
</tr>
<tr>
<td>something to do when meeting a co-worker</td>
<td>1.23</td>
<td>.527</td>
</tr>
</tbody>
</table>

Scale 1 - 4

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Table 12

Factor Analysis

<table>
<thead>
<tr>
<th>Activity</th>
<th>Stress</th>
<th>Social Fitting</th>
<th>Animal Fitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>to celebrate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>there’s nothing else to do</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>everyone else is doing it</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to relax after a shift</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to get along better with coworkers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>as a reward for good work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like the taste</td>
<td>.434</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to party with friends</td>
<td></td>
<td></td>
<td>.804</td>
</tr>
<tr>
<td>to calm down after a difficult shift</td>
<td></td>
<td></td>
<td>.891</td>
</tr>
<tr>
<td>to mingle better with the opposite sex</td>
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<td></td>
<td>.583</td>
</tr>
<tr>
<td>to get away from current problems</td>
<td></td>
<td></td>
<td>.602</td>
</tr>
<tr>
<td>because its available</td>
<td></td>
<td></td>
<td>.454</td>
</tr>
<tr>
<td>to relieve tension</td>
<td></td>
<td></td>
<td>.842</td>
</tr>
<tr>
<td>something to do when meeting a co-worker</td>
<td></td>
<td></td>
<td>.760</td>
</tr>
<tr>
<td>Cronbach Alpha</td>
<td>.856</td>
<td>.753</td>
<td>.70</td>
</tr>
</tbody>
</table>
Table 13

Mean Score by Judicial District

<table>
<thead>
<tr>
<th>Factor</th>
<th>district of county</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>first judicial</td>
<td>1.3782</td>
<td>.53357</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>second judicial</td>
<td>1.4917</td>
<td>.61986</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>third judicial</td>
<td>1.4659</td>
<td>.61313</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.4498</td>
<td>.59465</td>
<td>425</td>
</tr>
<tr>
<td>Social</td>
<td>first judicial</td>
<td>1.4349</td>
<td>.57256</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>second judicial</td>
<td>1.5304</td>
<td>.60161</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>third judicial</td>
<td>1.4970</td>
<td>.55731</td>
<td>166</td>
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<td></td>
<td>Total</td>
<td>1.4906</td>
<td>.57634</td>
<td>425</td>
</tr>
<tr>
<td>Fitting in</td>
<td>first judicial</td>
<td>1.1450</td>
<td>.35727</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>second judicial</td>
<td>1.1482</td>
<td>.32699</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>third judicial</td>
<td>1.1566</td>
<td>.37175</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.1506</td>
<td>.35268</td>
<td>425</td>
</tr>
</tbody>
</table>

Scale from 1-4

Research Question 7: What is the profile of the group of Mississippi law enforcement officers who are most at risk because of their drinking behaviors?

Analysis for Research Question 7: Using AUDIT’s scores to rank groups (no risk, harmful, and hazardous), chi-square (to find relationships) and MANOVA (to find differences) were utilized to see if there are statistically significant differences between groups. The demographics for these groups were analyzed. These values are shown in
The researcher found that there were significant relationships in demographics among the three groups. More males than females participated in the survey, but there was no relationship found between gender and the AUDIT ranking. However, statistically significant relationships in race, marital status, region, and with whom the officers drank were found (see Table 15). More white officers were found in the harmful and hazardous AUDIT scoring ranks than other races. A higher percentage of single officers were in the harmful and hazardous ranks. There was no difference in AUDIT rank when it came to education, county population, if the department worked in shift, or rank. However, there was a significant difference in where the county was located. There were more officers from the coastal region in the harmful risk group (scoring 8-15), and the majority of officers who made up the hazardous risk group (scoring 16 or higher) were based in the Northern region. Whereas shift work in itself was not significantly related to AUDIT ranking, specific shifts were (day, evening, midnight). The day shift made up the majority of harmful and hazardous risk groups. Who the officers drank with showed statistical significance between risk groups. The “no risk” group either did not drink or drank with family mostly. The “harmful risk” group drank mostly with friends who were not coworkers, and the “hazardous risk” group drank mostly with co-workers.

The researcher also conducted a MANOVA to find if there was a statistically significant difference between the risk groups according to age, length of time in law enforcement, number of hours a week working in law enforcement, number of drinking occasions, and number of drinks per occasion. The means and standard deviations are reported in Table 16. The tests for homogeneity of variance and co-variance were not
satisfied so the researcher took a random sample of 12 officers from the harmful risk group and 12 officers from the hazardous risk group. This sample yielded a statistically significant difference in the risk group and the demographics of these officers, Pillai’s $F(8,54) = 3.174, p=.002$. Upon finding a significant difference with the overall MANOVA, the protected F’s were viewed. The demographics age, $F(2, 385) = 4.01, p=.029$; number of drinking occasions, $F(2, 840) = 12.358, p<.001$; and number of drinks per occasion, $F(2, 124) = 9.64, p<.001$ were all found to be significantly different based on risk group. The demographics length in law enforcement profession, $F(2, 85) = 1.25, p=.309$ and hours worked per week, $F(2, 79) = .928, p=.407$ were not found to be statistically different. Tukey’s post hoc showed that people in the hazardous risk group are significantly younger than the people in the no risk group only. The officers in the no-risk group drank less often than both those in the harmful and hazardous risk groups. The hazardous group actually drank on fewer occasions than the harmful group, but this difference was not found to be statistically significant. The officers in the no-risk group drank significantly fewer drinks than the other groups, but although the hazardous risk group drank more than the harmful risk group, the amount was not found to be statistically different.
Table 14

Relationship Between AUDIT Score Ranking and Officer Demographics

<table>
<thead>
<tr>
<th></th>
<th>AUDIT score ranking</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Risk</td>
<td>Harmful Risk</td>
<td>Hazardous Risk</td>
<td>Total</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>420</td>
<td>100</td>
<td>7</td>
<td>527</td>
</tr>
<tr>
<td>female</td>
<td>59</td>
<td>9</td>
<td>1</td>
<td>69</td>
</tr>
<tr>
<td>Total</td>
<td>479</td>
<td>109</td>
<td>8</td>
<td>596</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>340</td>
<td>90</td>
<td>6</td>
<td>436</td>
</tr>
<tr>
<td>Black</td>
<td>136</td>
<td>17</td>
<td>1</td>
<td>154</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>other</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>486</td>
<td>109</td>
<td>8</td>
<td>603</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single</td>
<td>95</td>
<td>36</td>
<td>4</td>
<td>135</td>
</tr>
<tr>
<td>married</td>
<td>334</td>
<td>58</td>
<td>3</td>
<td>395</td>
</tr>
<tr>
<td>divorced</td>
<td>55</td>
<td>13</td>
<td>1</td>
<td>69</td>
</tr>
<tr>
<td>widowed</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>486</td>
<td>108</td>
<td>8</td>
<td>602</td>
</tr>
<tr>
<td>With whom they drank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>don’t drink</td>
<td>138</td>
<td>0</td>
<td>0</td>
<td>138</td>
</tr>
<tr>
<td>co worker</td>
<td>65</td>
<td>27</td>
<td>5</td>
<td>97</td>
</tr>
<tr>
<td>family</td>
<td>135</td>
<td>25</td>
<td>1</td>
<td>161</td>
</tr>
<tr>
<td>friends who are not coworkers</td>
<td>110</td>
<td>35</td>
<td>1</td>
<td>146</td>
</tr>
<tr>
<td>I am alone</td>
<td>22</td>
<td>15</td>
<td>1</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>470</td>
<td>102</td>
<td>8</td>
<td>580</td>
</tr>
</tbody>
</table>

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Table 14 (cont.)

Relationship Between AUDIT Score Ranking and Officer Demographics (cont.)

<table>
<thead>
<tr>
<th>Highest education completed</th>
<th>AUDIT score ranking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Risk</td>
<td>Harmful Risk</td>
</tr>
<tr>
<td>some high school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GED</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>high school diploma</td>
<td>86</td>
<td>23</td>
</tr>
<tr>
<td>some college</td>
<td>264</td>
<td>58</td>
</tr>
<tr>
<td>bachelors</td>
<td>91</td>
<td>24</td>
</tr>
<tr>
<td>graduate degree</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>488</td>
<td>110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of county</th>
<th>AUDIT score ranking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>small</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>medium</td>
<td>78</td>
<td>10</td>
</tr>
<tr>
<td>large</td>
<td>375</td>
<td>97</td>
</tr>
<tr>
<td>Total</td>
<td>488</td>
<td>110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>District of county</th>
<th>AUDIT score ranking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>first judicial</td>
<td>153</td>
<td>26</td>
</tr>
<tr>
<td>second judicial</td>
<td>148</td>
<td>51</td>
</tr>
<tr>
<td>third judicial</td>
<td>187</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>488</td>
<td>110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does your department work in shifts</th>
<th>AUDIT score ranking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>455</td>
<td>103</td>
</tr>
<tr>
<td>no</td>
<td>32</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>487</td>
<td>106</td>
</tr>
</tbody>
</table>
Table 14 (cont.)

**Relationship Between AUDIT Score Ranking and Officer Demographics (cont.)**

<table>
<thead>
<tr>
<th>What type shift does your department work</th>
<th>AUDIT score ranking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Risk</td>
<td>171</td>
<td>207</td>
</tr>
<tr>
<td>Harmful Risk</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Hazardous Risk</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>12 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Risk</td>
<td>261</td>
<td>324</td>
</tr>
<tr>
<td>Harmful Risk</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Hazardous Risk</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Risk</td>
<td>29</td>
<td>43</td>
</tr>
<tr>
<td>Harmful Risk</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Hazardous Risk</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

| Total                                     | 461                 | 574   |

| Which shift do you work                   |                     |       |
| day                                      | 239                 | 293   |
| Harmful Risk                             | 48                  |       |
| Hazardous Risk                           | 6                   |       |
| evening                                  | 79                  | 92    |
| Harmful Risk                             | 12                  |       |
| Hazardous Risk                           | 1                   |       |
| midnight                                 | 87                  | 120   |
| Harmful Risk                             | 33                  |       |
| Hazardous Risk                           | 0                   |       |

| Total                                     | 405                 | 505   |

| What is your current rank                 |                     |       |
| patrol officer                            | 304                 | 386   |
| Harmful Risk                             | 77                  |       |
| Hazardous Risk                           | 5                   |       |
| sergeant                                 | 76                  | 92    |
| Harmful Risk                             | 15                  |       |
| Hazardous Risk                           | 1                   |       |
| lieutenant                               | 42                  | 51    |
| Harmful Risk                             | 7                   |       |
| Hazardous Risk                           | 2                   |       |
| captain                                  | 25                  | 31    |
| Harmful Risk                             | 6                   |       |
| Hazardous Risk                           | 0                   |       |
| major                                     | 1                   | 2     |
| Harmful Risk                             | 1                   |       |
| Hazardous Risk                           | 0                   |       |
| administration                            | 27                  | 29    |
| Harmful Risk                             | 2                   |       |
| Hazardous Risk                           | 0                   |       |

| Total                                     | 475                 | 591   |

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Table 15

Relationship Between AUDIT Score Rank and Demographics

<table>
<thead>
<tr>
<th>Demographic* Audit Rank</th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.437</td>
<td>2</td>
<td>.488</td>
</tr>
<tr>
<td>Race</td>
<td>21.652</td>
<td>6</td>
<td>.001***</td>
</tr>
<tr>
<td>Marital Status</td>
<td>14.810</td>
<td>6</td>
<td>.022*</td>
</tr>
<tr>
<td>Highest Education Completed</td>
<td>10.105</td>
<td>10</td>
<td>.431</td>
</tr>
<tr>
<td>Population of County</td>
<td>8.866</td>
<td>4</td>
<td>.065</td>
</tr>
<tr>
<td>District of County</td>
<td>12.808</td>
<td>4</td>
<td>.012*</td>
</tr>
<tr>
<td>Type of Department</td>
<td>2.618</td>
<td>4</td>
<td>.624</td>
</tr>
<tr>
<td>Department works in Shifts</td>
<td>2.722</td>
<td>2</td>
<td>.256</td>
</tr>
<tr>
<td>Type of shift</td>
<td>8.892</td>
<td>4</td>
<td>.064</td>
</tr>
<tr>
<td>Which Shift</td>
<td>11.45</td>
<td>4</td>
<td>.022*</td>
</tr>
<tr>
<td>Rank</td>
<td>8.944</td>
<td>10</td>
<td>.537</td>
</tr>
<tr>
<td>With whom they drank</td>
<td>69.460</td>
<td>8</td>
<td>.000***</td>
</tr>
</tbody>
</table>

*p < .05
**p < .01
***p < .001
### Table 16

**Means and Standard Deviations of Demographics by AUDIT Score Rank**

<table>
<thead>
<tr>
<th>AUDIT score rank</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>41.92</td>
<td>12.457</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>34.92</td>
<td>9.030</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>29.50</td>
<td>5.127</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>36.19</td>
<td>10.715</td>
<td>32</td>
</tr>
<tr>
<td><strong>How long have you been in the profession of law enforcement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>13.2767</td>
<td>11.06054</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>10.4658</td>
<td>5.98765</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>7.3425</td>
<td>6.30078</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>10.7391</td>
<td>8.40204</td>
<td>32</td>
</tr>
<tr>
<td><strong>Approximately how many hours do you work as a law enforcement officer in an average week</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>44.33</td>
<td>7.855</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>43.00</td>
<td>3.275</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>48.63</td>
<td>15.464</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>44.91</td>
<td>9.209</td>
<td>32</td>
</tr>
<tr>
<td><strong>How often do you drink alcoholic beverages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>1.7358</td>
<td>1.66601</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>16.7500</td>
<td>10.77982</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>16.6250</td>
<td>9.72387</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>11.0884</td>
<td>10.85116</td>
<td>32</td>
</tr>
<tr>
<td><strong>How many drinks do you typically have</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>2.1667</td>
<td>1.94625</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>6.6667</td>
<td>5.12274</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>9.0000</td>
<td>2.44949</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>5.5625</td>
<td>4.47169</td>
<td>32</td>
</tr>
</tbody>
</table>
Table 17

*Results of MANOVA: Risk Groups According to Demographics of Officers*

<table>
<thead>
<tr>
<th>Variable</th>
<th>F-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall MANOVA</td>
<td>F(8, 54) = 3.174</td>
<td>p = .002***</td>
</tr>
<tr>
<td>Age</td>
<td>F(2, 385) = 4.01</td>
<td>p = .029*</td>
</tr>
<tr>
<td>Number of drinking occasions</td>
<td>F(2, 840) = 12.358</td>
<td>p&lt;.001***</td>
</tr>
<tr>
<td>Number of drinks per occasion</td>
<td>F(2, 124) = 9.64</td>
<td>p&lt;.001***</td>
</tr>
<tr>
<td>Length in Law enforcement</td>
<td>F(2, 85) = 1.25</td>
<td>p = .309</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>F(2, 79) = .928</td>
<td>p = .407</td>
</tr>
</tbody>
</table>

*Ancillary Findings*

The researcher found the officers that she contacted were willing to complete questionnaires that asked them about their alcohol consumption. Most if not all of the officers who were personally asked either in a roll call or group setting filled out a questionnaire. The only opposition to the questionnaires that the researcher received was that of the administrator. Most of the administrators were very compliant and offered their help with the study. Others voiced that they believed that the researcher would not get participation from the officers. Most of the administrators who voiced these opinions stated the reasons that the officers were very leery about questioning of this sort and would be guarded in their answers. But, upon administering the instrument, the researcher found the opposite to be true. Most of the officers who were given the
opportunity to answer the questionnaire did so. The administrators who decided not to participate in the study (2 out of 53) did so voicing legal reasons and lack of time.

The researcher also wondered about the high correlations of the factors stress, social animal, and fitting in, yet, did not find a difference based on judicial district. The researcher conducted a MANOVA to find if there was a statistically significant difference between the risk groups according the factors. The tests of homogeneity of variance and co-variance were not satisfied so the researcher took a random sample of 12 officers from the harmful risk group and 12 officers from the hazardous risk group. The means and standard deviations of the factors are reported in Table 17. This sample yielded a statistically significant difference in the factors based on risk group, Pillai’s $F(6,56) = 8.48, p<.001$. Upon finding significant difference with the overall MANOVA, the protected F’s were viewed. The AUDIT score ranking was found to be a statistically significant predictor for fitting in, $F(2, 29) = 12.518, p<.001$; social animal, $F(2, 29) = 25.658, p<.001$; and stress, $F(2, 29) = 5.179, p=.012$. Upon pair wise comparisons, the researcher found that the factor fitting in showed that the officers in the hazardous risk group were more apt to report this factor as a reason to drink than those officers in the no risk and the harmful risk groups. The researcher found statistically significant differences when the no-risk group reported the factor social animal less of a reason to drink than the harmful risk group. The harmful risk group reported this factor as less of a reason to drink than the hazardous risk group which was also found statistically higher than the other two groups. Finally, the no-risk group reported the factor stress as a reason for drinking less often than both the harmful risk group and the hazardous risk group.
The harmful risk group and the hazardous risk group were not different in reporting the reason for drinking as stress.

Table 18

Means and Standard Deviations of Factors by AUDIT Rank

<table>
<thead>
<tr>
<th>AUDIT rank</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitting in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>1.0833</td>
<td>.22191</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>1.1042</td>
<td>.22508</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>1.9063</td>
<td>.70632</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>1.2969</td>
<td>.52532</td>
<td>32</td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>1.1875</td>
<td>.24133</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>1.7500</td>
<td>.67420</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>2.6875</td>
<td>.25877</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>1.7734</td>
<td>.73879</td>
<td>32</td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>1.1250</td>
<td>.18970</td>
<td>12</td>
</tr>
<tr>
<td>2.00</td>
<td>1.8889</td>
<td>.99070</td>
<td>12</td>
</tr>
<tr>
<td>3.00</td>
<td>2.2083</td>
<td>.99103</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>1.6823</td>
<td>.88936</td>
<td>32</td>
</tr>
</tbody>
</table>

Scale 1-4

Table 19

Results of MANOVA: AUDIT Rank According to Factor

<table>
<thead>
<tr>
<th>Overall MANOVA</th>
<th>$F(6,56) = 8.48, p&lt;.001$***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitting In</td>
<td>$F(2, 29) = 12.518, p&lt;.001$***</td>
</tr>
<tr>
<td>Social Animal</td>
<td>$F(2, 29) = 25.658, p&lt;.001$***</td>
</tr>
<tr>
<td>Stress</td>
<td>$F(2, 29) = 5.179, p=.012$*</td>
</tr>
</tbody>
</table>

*p<.05
**p<.01
***p<.001

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CHAPTER V
DISCUSSION

Summary

Policing in the United States is confronted by powerful external forces rooted in (a) the nation’s concept of political checks and balances, (b) rights of citizenry recognized at constitutional law, (c) logic underlying a free press, and above all, (d) centuries of Anglo-American history that have instilled a deep and abiding fear of the coercive police power of the state. In recent years American police officers have been exposed to a different type of external pressure – that arising from sensationalistic literary fiction and highly-misleading television programming – which has elevated public expectations to unprecedented levels. The result is an altogether unrealistic public view of police officers, one that exposes those who enforce the law to a ludicrously high standard of behavior.

The “police subculture” is both a virtue and a vice. It is a virtue because it is a bonding agent, a source of camaraderie among those who absolutely must bond: the demand for mutual trust, collaboration, even for a sense of brotherhood among police officers gives them much in common with the armed forces subculture. Yet police officers are not members of the armed forces. Rather, they enforce legal requirements and constraints, some of which are highly questionable, among a domestic civilian population that is afforded remarkable due-process rights, and in this sense subculture status can be a vice. The much-researched “police personality” is certainly a liability that separates and often alienates officers from those they ostensibly serve. So, too, is the “code of silence” to which officers subscribe in attempting to screen colleagues from
external threats, including those arising from violations of public law. And policing is also said to be a "drinking culture" (Martin, 1999), a claim which, if true, places officers, the agencies that employ them, the governmental entities they represent, and the citizenry at further risk.

The extent to which American police officers consume alcohol, and the degree to which drinking impacts on their personal lives and professional performance, are thought to be considerable by numerous scholars. One scholar, in fact, speculated recently that the rate police officers consumed alcohol was double that of the general population (Kirschman, 2006), and others have assigned drinking to causative factors rooted in the police subculture and the personality it breeds. On the one hand are social explanations which assert that police view alcohol as a medium for bonding and celebration, and that the resulting strength of social convention places pressure on all members of the profession to conform (Pendergrass & Ostrove, 1986). On the other hand are stress-related explanations which hold that police officers drink alcohol as a form of self-medication, trying to cope with the stressors of their jobs (Violanti, Marshall, & Howe, 1985).

There is no known empirical data that back up these claims. They are conclusions born of very limited inquiry, they reflect the peculiarities of time and place, and every conclusion is highly contentious among scholars. High on the list of excuses for this informational void is the police "code of silence" itself, which is said to fend off every attempt to measure alcohol consumption among officers (Dietrich & Smith, 1986). Yet, Australian studies have penetrated the supposedly impenetrable police subculture, and they have produced data that shed much light on the consumption of alcohol among
officers. The Australian studies are the only known large-scale quantitative research efforts, and they inspired the author of this study to ignore the nay-sayers and to undertake the first known statewide study of alcohol consumption by American police officers.

Conclusions and Discussion

Using the daily ethanol intake found in the NIAAA 2001-2002 NESARC study, the researcher computed the daily ethanol intake of both the population of police officers surveyed in this study and the NESARC general population. While fewer Mississippi officers abstain from alcohol (25%) than the 31% reported for the general population by Moore, Gould, Reuben, Greendale, Carter, Zhou, and Karlamangla in 2005, the researcher found no statistically significant difference in the amount of alcohol consumed by police and the general population of the United States. Indeed, the researcher discovered that the general population reported a marginally greater daily alcohol intake than the police who were surveyed.

Furthermore, the rate of consumption of police officers who drank was within healthy parameters (8 grams of ethanol a week) set by Jackson and Beaglehole (1995). Only a small percentage of the officers ranked in the harmful risk level of the AUDIT (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) instrument (18.2%), and those who ranked in the most hazardous level of alcohol risk and who manifested possible alcohol dependency made up only 1.4% of the sample.

These findings contest the police drinking behaviors addressed in most extant literature (Kirschman, 2006; Pentegrass & Ostrove, 1986; Blackmore, 1978). In Mississippi at least, the abuse of alcohol within the police community seems to be
marginal, no greater than and in many cases far less than that existing within other occupations. There are, however, a handful of officers with problem behaviors that demand administrative intervention.

Based on the findings of this study, administrative intervention does not require the termination of the few officers whose consumption equates with harmful or hazardous levels; the problem can be redressed. Administrative awareness of a potential alcohol problem is the key, and the alcohol behaviors that put the officer and the department in jeopardy are the AUDIT’s harmful and hazardous risk levels.

How do the harmful and hazardous risk levels of Mississippi officers compare to those found in American literature and in the Australian study? American scholars estimate that 20% of officers have problems with alcohol (Blackmore, 1978), although they leave the definition of “problems” unclear. This study found that 19.6% of the officers recorded scores that equated with AUDIT’s definition of problems: those whose consumption of alcohol constitutes possible harmful or hazardous risk of alcohol use. This percentage is close to that estimated by U.S. literature, but far below the 33.2% reported by the Australian study (Davey, Obst, & Sheehan, 2000a).

Like other studies, this one found that age and marital status were strong predictors of a police officer being at risk for alcohol problems, and that to a lesser extent race, region, drinking comrades, the number of occasions consuming, and the number of drinks consumed per occasion were significant predictors of alcohol risk. However, unlike the Australian study, which reported that gender and rank were significant indicators, gender and rank were not found to be significant among the population surveyed.
Mississippi officers most likely to be at risk of harmful and hazardous drinking behaviors are young, white, single officers who work a day shift. Those most likely in the harmful risk category are those in the coastal region of the state and those who are most likely to belong in the hazardous risk category are those in the northern portion of the state. The officers in the hazardous risk group actually drank on fewer occasions than the other groups but consumed more alcohol per occasion. The officers in the hazardous group were also found to drink with their co-workers more often than with other groups, and they were more likely to report wanting to “fit in” when discussing the reasoning behind their alcohol consumption.

“Fitting in” is a greater concern for younger officers than for older ones, but the researcher found little evidence that the drinking behaviors of the sample were influenced by a police subculture, thereby confirming the conclusion of Meyers and Perrine (1996) that policing is not a drinking culture. However, the researcher does not rule out the possibility that individual departments may condone drinking among officers for social reasons, and that such departments may breed harmful drinking behaviors among young recruits to a greater or lesser extent.

In addition, many of the characteristics held by the officers in the harmful and hazardous risk groups are also held by college students. The officers in the study who made up the harmful and hazardous groups were young, male, and unmarried. Young, single males, particularly those in college, begin to consume alcohol while they are also aligning themselves with close personal groups of friends. While within these groups, these young men report “fitting in” foremost as a factor for beginning to binge drink (Weitzman, Nelson, & Wechsler, 2003). Furthermore, the officers with the most risk for
alcohol problems worked the day shift. These officers more likely had the chance as well as the opportunity to drink alcohol during the evening, the typical time of day in which alcohol consumption occurs. Their night shift colleagues may also see the negative effects of alcohol more often and realize the detriment that the consumption may place on their lives. As a result, rational choice theory, or social control theory (Williams & McShane, 1999) may play more of a role in the officers' alcohol consumption than previously expected. The officers weigh the pros and cons of drinking alcohol. The day shift decides to drink because of the positive results of the camaraderie and the availability of the alcohol; while the night shifts see the negative aspects and the lack of open, fun, alcohol-laced spots and correspond with the contrary result. Therefore, it is believed that many of these at-risk officers are just following human nature. Their choices, however harmful they may be, are made because of the availability and opportunity that exists during their time away from the uniform.

The researcher questioned whether the consumption of alcohol by officers in this study differed according to region, population of county, or type of department. The sample contained so much diversity in these categories that the researcher had to randomly select members from the various grouping to measure these phenomena. The result was the rather startling conclusion that alcohol consumption among officers did not differ appreciably by region, population of county, or type of department. Even though there was a high correlation between officer's location and level of harm, the MANOVA found no differences in their consumption based on location. The data confirmed, in fact, a remarkable homogeneity among Mississippi police officers on the subject of alcohol consumption. One wonders if homogeneity exists in other police attitudes and behaviors.
in Mississippi. Given the fact that the study was conducted in the aftermath of Hurricane Katrina, homogeneity tends to undermine theories that equate officers’ alcohol consumption with environmental stress (Pendergrass & Ostrove, 1986; Violanti, Marshall, & Howe, 1985). Environmental and occupational stressors in the coastal region of Mississippi absolutely eclipsed those in other regions of the state during the year that followed Katrina, and they diminished with every step north, with the counties bordering Tennessee affected only marginally. Yet, data confirmed no statistically significant difference in alcohol consumption by officers in the state, and reported stress levels did not distinguish high-risk and low-risk officers. Therefore, the researcher did not find that environmental stress was associated with the officers’ consumption of alcohol. Nevertheless, this lack of finding continues the debate over stress or social reasoning.

Factor analysis likewise disclosed interesting conclusions on the reasons police officers reported for drinking alcohol. In this study, the researcher found that the officers reported three separate factors for drinking alcohol. The researcher categorized these factors as stress, social animal, and “fitting in”. Confirming current research, the researcher found that both stress and social reasons (Pendergrass & Ostrove, 1986; Violanti, Marshall, & Howe, 1985) were cited by the officers. Surprisingly, though, the officers drew a clear distinction between drinking to be a social animal and drinking to fit in, thereby producing results that disagree with those who have found no difference in these two motivational variables (Pendergrass & Ostrove, 1986). Fitting in, in fact, was the most frequently cited reason for drinking among those in the hazardous risk group.
and the researcher therefore concludes that social factors, particularly a desire to fit in, may be the leading causal variable in alcohol consumption by the officers surveyed.

Limitations

The results of this study were limited in four ways: (1) the administrators were allowed to choose to disseminate and collect the questionnaires personally. Although the researcher tried to maintain anonymity by including 9”x12” envelopes that the participant sealed, the participant may not have believed that his or her anonymity would be maintained and did not report true scores or decided not to participate because of the possible implications; thus skewing the possible outcome. (2) The study was conducted only with Mississippi law enforcement officers and should only be generalized to that population. The results cannot be generalized to Mississippi’s general population or to the population of law enforcement officers outside the state of Mississippi. (3) The instrument was designed to take less than 10 minutes to complete, so many other important demographics, like when and where officers consume alcohol, were omitted. (4) Due to time restraints, the researcher did not ask which drinks the police consumed on occasions that they drank alcohol, so the researcher had to average the amount of ethanol. The actual daily intake may have been artificially increased or decreased by this calculation. (5) During the course of the data collection, the researcher was informed that she left out a key group of law enforcement while filling out the rank question. Many of the officers surveyed had to place themselves within another fabricated rank because the rank of detective was not available.
Recommendations for Policy and Practice

Younger officers were found to report riskier levels of alcohol consumption, and they generally reported that wanting to “fit in” was their principal reason for consuming alcohol. Younger officers are therefore more at risk than others, and this fact is instructive for police administrators who want to correct this problem. Administrative intervention by means of mandatory alcohol education in academy or upon entering police work could be a positive influence, so long as said education is supported by the behaviors of administrators and older officers. Field training officers and other officers who influence young officers’ opinions and behaviors should be educated on the problems of alcohol and how to detect alcohol problems. The field training officer should be the first line of defense against the problem of alcohol use. However, if the young officer picks up the at-risk behaviors after training is over, there should be some anonymous help in place so that the officer is able to reach out without fear of retaliation.

Recommendations for Future Research

During the course of this study, the researcher was hampered by a dearth of data on police agencies and officers within Mississippi, notwithstanding the existence of a state agency that oversees the statutorily-mandated certification of all full-time police officers. The dearth of information hampers all research on police in Mississippi, and the researcher recommends that the Mississippi Board of Minimum Standards initiate ongoing research on the demographics of law enforcement within the state.

The researcher was also hampered somewhat by the fact that there were no AUDIT-generated data that could be compared to the results of this study. Most available AUDIT data was excluded due to population parameters (most were of college
students or high school students). A study by the National Institute on Alcohol Abuse and Alcoholism (Dawson, Grant, & Stinson, 2005) used the AUDIT-C test (the 3 questions on frequency and amount) found the AUDIT was a good indicator of alcohol problems, but noted that the NESARC instrument was difficult to compute into the AUDIT – C instrument. The researcher suggests that future research should be conducted to compare this data to a comparative sample of Mississippi residents to see if a difference actually exists between police alcohol consumption and that of the general population in Mississippi.

The use of alcohol by young officers is puzzling if a police culture, which condones drinking, does not exist. Young officers may bring an inclination to drink into policing; after all, the rates of consumption among police and the general population are remarkably similar. Or the use of alcohol by young officers may be stress-related to a greater or lesser degree; perhaps a difference in coping mechanisms exists between younger and older officers. Yet, the young officers did not state that they drank because of stress but instead to fit in with their colleagues, and this phenomenon demands further inquiry. A possible variable is the culture of different police agencies.

Finally, the researcher concludes that although this study found no pervasive alcohol problems among Mississippi police officers, the use of alcohol by law enforcement is well worth further inquiry. Liability issues demand it; officers under the influence of alcohol can put departments and governmental entities that employ them at considerable risk. Personal considerations also demand inquiry. Criminal liability might result from alcohol abuse, and there are alarming rates of divorce and suicide within the
American police community which some researchers have related to hazardous levels of alcohol consumption.
APPENDIX A
SURVEY INSTRUMENT

Mississippi Law Enforcement Officer’s
Alcohol Consumption Study
Section A: Demographic Questions

1. Type of Department:
   - Municipal Police Department
   - State Law Enforcement Agency
   - County Sheriff's Department

2. Gender:
   - Male
   - Female

3. Race:
   - Caucasian/White
   - African-American/Black
   - Hispanic/Latino
   - Other

4. Marital Status:
   - Single
   - Married
   - Divorced
   - Widowed

5. Highest Education level completed
   - Some High School
   - G.E.D.
   - High School Diploma
   - Some College
   - Four Year Degree (B.A. or B.S)
   - Graduate Degree

6. Age: __________ Years

7. How long have YOU been in the profession of law enforcement?
   __________ Years __________ Months

8. Approximately how many hours do YOU work as a law enforcement officer in an average week?
   __________ Hours

9. Does your Department work in shifts?
   - Yes
   - No

10. What type shift does your department work?
    - 8-Hour
    - 12-Hour
    - Other
11. Which shift do YOU work?
   Day
   Evening
   Midnight

12. What is YOUR current RANK?
   Patrol Officer / Deputy
   Sergeant
   Lieutenant
   Captain
   Major
   Administration

Section B: Questions about Your Drinking

The following questions ask for your current alcohol consumption, a "drink" means any of the following:
   A 12-ounce can or bottle of beer
   A 4-ounce glass of wine
   A 12-ounce bottle or can of wine cooler
   A shot of liquor straight or in a mixed drink

1. How often do YOU drink alcoholic beverages?
   Number of Times
   per  Week
         Month
         Year

2. On an occasion that you drink alcohol, how many drinks do YOU typically have?
   Drinks

3. Within the past month, how often have you had five or more drinks in one sitting?
   ○ I never have had 5 or more drinks in a sitting
   ○ 1 have not had a drink in the last Month
   ○ 1 or 2 occasions
   ○ 3 to 5 occasions
   ○ 6 to 9 occasions
   ○ 10 to 19 occasions
   ○ 20 to 29 occasions
   ○ 30 or more times
4. During the occasions that you drink, who are you most likely with? (pick only one)
   ○ I do not drink
   ○ Co-workers
   ○ Family
   ○ Friends who are not co-workers
   ○ I am alone

5. How important are each of the following reasons for YOU to drink alcohol?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Not at all Important</th>
<th>Somewhat Important</th>
<th>Important</th>
<th>Very Important</th>
<th>I do not Drink</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. To celebrate</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>b. There is nothing else to do</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>c. Everyone else is doing it</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>d. To relax after a shift</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>e. To get along better with co-workers</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>f. As a reward for good work</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>g. I like the taste</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>h. To party with friends</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>i. To calm down after a difficult shift</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>j. To mingle better with the opposite sex</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>k. To get away from current problems</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>l. It is available</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>m. To relieve tension</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>n. Something to do when meeting a co-worker</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

6. How often during the last year, have you found that you were not able to stop drinking once you had started?
   ○ Never
   ○ Less than monthly
   ○ Monthly
   ○ Weekly
   ○ Daily or almost daily

7. How often during the last year, have you failed to do what was normally expected of you because of drinking?
   ○ Never
   ○ Less than monthly
   ○ Monthly
   ○ Weekly
   ○ Daily or almost daily
8. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

9. How often during the last year, have you had a feeling of guilt or remorse after drinking?

10. How often during the last year, have you been unable to remember what happened the night before because of your drinking?

11. Have you or someone else been injured because of your drinking?
   - No
   - Yes, but not in the last year
   - Yes, during the last year

12. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?
   - No
   - Yes, but not in the last year
   - Yes, during the last year

13. Since joining the police force, my drinking has:
   - Decreased
   - Stayed the same
   - Increased

Thank you for your participation in this study. Please refer to the informed consent document if you would like a copy of the aggregate results.
APPENDIX B

WORLD HEALTH ORGANIZATION’S PERMISSION TO USE AUDIT INSTRUMENT

Date: Tue, 6 Jun 2006 11:19:04 +0200
From: msb <msb@who.int>
To: Vicki Lindsay <Vicki.Lindsay@usm.edu>
Subject: RE: Permission to use AUDIT in dissertation

Dear Vicki,

On behalf of the World Health Organization, we are pleased to give you permission to use and publish the AUDIT screening test for your research and dissertation, as requested in your email below. However, please ensure that the original source is appropriately acknowledged. Also it is important to note that the WHO regulations, approved by all its Member States, do not allow the name of the World Health Organization to be used in promoting a specific company, services or products.

With best wishes,

Marielle Schreiber
Management of Substance Abuse
Department of Mental Health and Substance Abuse
World Health Organization
CH-1211 Geneva 27

----Original Message-----
From: Vicki Lindsay [mailto:Vicki.Lindsay@usm.edu]
Sent: 02 June 2006 19:28
To: msb
Subject: Permission to use AUDIT in dissertation

Greetings,

I would like to ask for your permission to use and possibly publish the AUDIT screening test for my research and dissertation. I will be submitting a self-reported questionnaire to Mississippi Police Officers to develop a profile of their alcohol consumption. I would like to find and report the segment of the population of officers that are most at risk of harmful drinking. I believe the AUDIT screening test will most serve my purpose.

I will be creating my own questionnaire based on the literature in the field. Questions that will be included in the questionnaire will include demographic questions, questions about their drinking habits, reasons they chose or don't chose to drink, and a test of harmful drinking. I would like permission to use the AUDIT for the test of harmful drinking. I would also like to publish the full questionnaire (including AUDIT) within the dissertation if allowed.

If I need to follow different procedure to obtain permission, please inform me so that I may continue in the creation of the questionnaire.

Thank you for your consideration.

Vicki Lindsay

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TO: Vicki Lindsay  
127 Autumn Glenn  
Sartillo, MS 38866

FROM: Lawrence A. Hosman, Ph.D.  
HSPRC Chair

PROTOCOL NUMBER: 26082803  
PROJECT TITLE: A Profile of the Mississippi Law Enforcement Officer: An Alcohol Consumption Study

Enclosed is The University of Southern Mississippi Human Subjects Protection Review Committee Notice of Committee Action taken on the above referenced project proposal. If I can be of further assistance, contact me at (601) 266-4279, FAX at (601) 266-4275, or you can e-mail me at Lawrence.Hosman@usm.edu. Good luck with your research.
HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months.

Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 26082803
PROJECT TITLE: A Profile of the Mississippi Law Enforcement Officer: An Alcohol Consumption Study
PROPOSED PROJECT DATES: 09/01/06 to 03/31/07
PROJECT TYPE: Dissertation or Thesis
PRINCIPAL INVESTIGATORS: Vicki Lindsay
COLLEGE/DIVISION: College of Science & Technology
DEPARTMENT: Administration of Justice
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Exempt Approval
PERIOD OF APPROVAL: 09/05/06 to 09/04/07

Lawrence A. Hosman, Ph.D. Date
HSPRC Chair
HUMAN SUBJECTS REVIEW FORM
UNIVERSITY OF SOUTHERN MISSISSIPPI
(SUBMIT THIS FORM IN DUPLICATE)

Protocol # 26082803
(office use only)

Name: Vicki Lindsey
Phone: 662-322-6564

E-Mail Address: vicki.lindsay@usm.edu

Mailing Address: 127 Autumn Glenn, Saltillo, MS 38866
(address to receive information regarding this application)

College/Division: Science and Technology
Dept: Administration of Justice

Department Box #: 5127
Phone: 601-266-4509

Proposed Project Dates: From September 1, 2006 To March 31, 2007
(specific month, day and year of the beginning and ending dates of full project, not just data collection)

Title: A Profile of the Mississippi Law Enforcement Officer: An Alcohol Consumption Study

Funding Agencies or Research Sponsors:

Grant Number (when applicable):

5127 New Project

Dissertation or Thesis

Renewal or Continuation: Protocol #

XX Change in Previously Approved Project: Protocol # Not yet approved, submitted August 23, 2006

Principal Investigator:

Date: 8/28/06

Address:

Date: 8/28/06

Department Chair:

Date: 8/28/06

RECOMMENDATION OF HSPRC MEMBER

☒ Category I, Exempt under Subpart A, Section 46.101 (c) (2), 45CFR46.

☐ Category II, Expedited Review, Subpart A, Section 46.110 and Subparagraph ().

☐ Category III, Full Committee Review.

HSPRC College/Division Member: [Signature]
Date: 9/06/06

HSPRC Chair: [Signature]
Date: 9/06/06

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This form should be used to report single adverse effects. Incident reports (i.e., reports of problems involving the conduct of the study or patient participation, including problems with the recruitment and/or consent processes and any deviations from the approved protocol) should be described in a letter. Return this form to the IRB Coordinator, The University of Southern Mississippi, 118 College Drive # 5147, Hattiesburg, Mississippi 39406-0001.

<table>
<thead>
<tr>
<th>Principal Investigator:</th>
<th>Phone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB Approval #:</td>
<td></td>
</tr>
<tr>
<td>Study title:</td>
<td></td>
</tr>
<tr>
<td>Adverse Effect (3-4 words):</td>
<td></td>
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<tr>
<td>Date of adverse effect:</td>
<td></td>
</tr>
</tbody>
</table>

Additional details/description of effect and treatment, if any. (A detailed report may be attached.)

<table>
<thead>
<tr>
<th>Adverse effect appears to be (check one):</th>
<th>Directly related to the research</th>
<th>Indirectly related to the research</th>
<th>Unrelated to the research</th>
</tr>
</thead>
</table>

Research involved the use of:

<table>
<thead>
<tr>
<th>was use of procedure intended to directly benefit subject?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was subject enrolled at a USM site?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Has this type of adverse effect been reported before?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is this type of effect likely to occur again?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the effect adequately described in the protocol and consent form?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

* If not, are changes needed in the protocol and/or consent form? | Yes* | No |

** If so, a modification application should accompany this report.

What other agencies (e.g., sponsors) have been notified of this adverse effect?

Signature of Principal Investigator Date
APPENDIX D

INFORMED CONSENT DOCUMENT

THE UNIVERSITY OF SOUTHERN MISSISSIPPI
CONSENT DOCUMENT
A Profile of the Mississippi Law Enforcement Officer: An Alcohol Consumption Study

Purpose: As law enforcement officers in the State of Mississippi, you are being asked to participate in a project designed to assess drinking habits of Mississippi law enforcement officers. The analysis of the information collected through this survey may be of assistance in discerning the actual consumption of alcohol by law enforcement. This project is being conducted by Vicki Lindsay, a doctoral student under the direction of Kyna Shelley, Ph.D. at the University of Southern Mississippi.

Description of Study: As a participant, you are being asked to complete a questionnaire designed specifically to evaluate your habits and experiences with drinking alcohol as well as several demographic questions. Completing the questionnaire should take no longer than 10 minutes. Overall results of this study will be reported to those interested parties when the study is complete by contacting the researcher via email by using the provided contact information.

Benefits: Although you may receive no direct benefit from your participation in this study, your responses may help us better understand the social and psychological factors that influence the use of alcohol by law enforcement officers.

Risks: There are no known risks associated with participation in this study. A small amount of demographic information will be collected and the results will be reported only in aggregate form so that no individual can be identified. Paper questionnaires will be collected by the researcher upon completion, but they will not be looked at or tallied until the researcher reaches her home office. At that time, the researcher will shuffle the responses so that there is no possible way that she may identify the respondent.

Confidentiality: Completed questionnaires will be kept secure in the researcher's office. All information gained from individual questionnaires will be kept confidential, seen by no one other than the researcher and the faculty sponsor.

Subject's Assurance: Participation in this study is voluntary. You may refuse to participate at any time without penalty. Refusing to participate will in no way affect your standing as an employee. If you have any questions about this study, you may contact the researcher, Vicki Lindsay, at (662) 322-6564 or vicki.lindsay@usm.edu. Overall results of this study will be available to you after May 15, 2007 upon request.

This project has been reviewed and approved by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406, (601) 266-6820.
By returning the completed questionnaire, you are indicating your consent to participate. This consent form is yours to keep for future reference.
APPENDIX E

LETTER TO ADMINISTRATOR WHO IS SELF-DISSEMINATING INSTRUMENT

April 13, 2007

Dear Chief:

Thank you for agreeing to allow your officers to participate in this study. I hope to determine the actual alcohol consumption of Mississippi officers. Literature estimates this drinking rate to be double that of the general population. However, these estimates are theory based on the suicide rates of officers with alcohol problems against the alcohol related suicides of the general populations. I am trying to determine the actual alcohol use by officers. I also hope to determine the “profile” of the group of officers that are most at risk of harmful or hazardous drinking so that the administration could intervene before alcohol affects the health or job performance of these officers.

Thank you for agreeing to ask these officers to participate in my absence. I ask you to tell them that this study is purely voluntary. I also ask that you tell them to keep the cover page if they decide later that the study might have adversely affected them or if they would like a copy of the summary of the study in May 2007. Please assure them that this study is absolutely anonymous and have them seal and mail the questionnaire using the self addressed stamped envelope provided so that they are assured that no one other than the researcher will be looking at the results.

I also offer you the opportunity to review the results of the whole study in May. If you would like a copy, please email me at Vicki.lindsay@usm.edu or inform me when you see me next. You will not be able to see what your individual officers answered or how they faired when they are compared to other officers in the state. You are only going to be able to see the aggregate results that I will be reporting within my dissertation.

Sincerely,

Vicki Lindsay
Doctoral Candidate
University of Southern Mississippi
APPENDIX F

LETTER TO ADMINISTRATOR NOT ABLE TO BE CONTACTED BY PHONE

April 13, 2007

Dear Sheriff:

I am currently conducting a study of Mississippi Law enforcement officers for my doctoral Dissertation. I hope to determine the actual alcohol consumption of Mississippi officers. Literature estimates this drinking rate to be double that of the general population. However, these estimates are theory based on the suicide rates of officers with alcohol problems against the alcohol related suicides of the general populations. I am trying to determine the actual alcohol use by officers. I also hope to determine the “profile” of the group of officers that are most at risk of harmful or hazardous drinking so that the administration could intervene before alcohol affects the health or job performance of these officers.

I ask you to pass out these questionnaires in the self addressed stamped envelopes to your officers and ask them to participate in this worthy study. I ask you to tell them that this study is purely voluntary. I also ask that you tell them to keep the cover page if they decide later that the study might have adversely affected them or if they would like a copy of the summary of the study in May 2007. Please assure them that this study is absolutely anonymous and have them seal the envelopes and put them in the mail so that they are assured that no one other than the researcher will be looking at the results. If you have any questions regarding this survey, please call me (662-322-6564) or please call if you decide not to participate in the survey so that I may come and pick up the blank questionnaires.

I also offer you the opportunity to review the results of the whole study in May. If you would like a copy, please email me at Vicki.lindsay@usm.edu. You will not be able to see what your individual officers answered or how they faired when they are compared to other officers in the state. You are only going to be able to see the aggregate results that I will be reporting within my dissertation.

Sincerely,

Vicki Lindsay
Doctoral Candidate
University of Southern Mississippi
APPENDIX G

PHONE MONOLOG TO STATE AGENCIES

My name is Vicki Lindsay. I am a doctoral candidate in Administration of Justice at The University of Southern Mississippi. I am currently working on my dissertation which is attempting to study the alcohol consumption of Mississippi law Enforcement officers. Because your agency is a State agency, I would like to include it within my study. Therefore, I would like the chance to ask your officers to voluntarily participate by filling out a questionnaire which will take no longer than 10 minutes of their time. I will be happy to send you information on this study, including the counties in which I will be interested in and the questionnaire, via email. All I ask is to be allowed to approach your officers. I can either come to a group meeting, or you may opt to disseminate the questionnaires personally. Would you like to participate, and how may I contact your agents?
Greetings!

I am currently conducting a study addressing the alcohol consumption of Mississippi Law Enforcement officers for my doctoral dissertation. I hope to determine the actual alcohol consumption of Mississippi Law Enforcement officers. Hopefully this will be beneficial to the law enforcement field because literature predicts the actual alcohol consumption of officers is twice that of the general population. This prediction has not been researched, and thus, just a theory. I plan on determining the actual consumption of Mississippi officers. Because of limitations of my methodology, I only need those agents who work in the following 21 randomly selected counties. I also must administer the survey in a group setting face to face. I do not need to contact the agency as a whole and am able to contact smaller groups who would like to participate as needed. I am able to travel on most days and at the will of the agency, so please tell me when is best for your group. I will be contacting all the Sheriff’s Departments and municipal police departments in those counties as well if your agents will like to take the survey while I am at those locations. Please remember that the questionnaire is completed in a strictly voluntary and anonymous nature. For your review, I am including a copy of the questionnaire.

I understand that you are having an in-service in Tunica in December. If this date is better for you, I will be glad to survey your agents then or at another time which they will be together. Please provide a contact name of whom I should discuss arrangements with for that time if this is preferable.

Thank you again for your help,

Vicki Lindsay

21 Counties to be surveyed

Clayborn
Isaquena
Jefferson
Bolivar
Neshoba
Hinds
Madison
Amite
Franklin
Jefferson Davis
Greene
Pike
Harrison
Jackson
Carroll
Tallahatchie
Tunica
Attala
Chickasaw
Desoto
Lowndes

Vicki
REFERENCES


/sitting


Aristotle (350 B.C.) *Nicomachean Ethics.*


Operation of vehicle while under influence of intoxicating liquor, drugs or controlled substances, or other substances impairing ability to operate vehicle or with blood alcohol concentrations above specified levels; penalties generally; granting of hardship driving privileges; penalties for violations resulting in death, disfigurement, etc., of another; penalties for multiple offenses; concurrent running of suspensions. (2006). Mississippi Code Ann. § 63-11-30. Retrieved August 8, 2006 from LexisNexis database.


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