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## Alcohol Consumption And Negative Outcomes At Eastern Illinois University

Matthew Michael Feely

Eastern Illinois University

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#### **DEDICATION**

This thesis is dedicated to my family, Michael, Mary Ann, Heather, William, and Grandma Anna J. Feely who have all been very supportive of my decision to attend graduate school at Eastern Illinois University. Our family has gone through tough times together, yet we still manage to overcome them and push forward. You have all been patient no matter what choices I have made in life. I sincerely thank all of you for your constant support. With my most humble gratitude and affection, I dedicate this thesis to all of you.

#### ABSTRACT

The primary focus of this study was to examine Eastern Illinois University student alcohol consumption and associated negative outcomes. Negative outcomes defined for the purposes of the present study were poor academic performance, getting into a physical fight, driving under the influence, and sexual assault. Data collected by Eastern Illinois University's Health Education Resource Center using the CORE survey was analyzed for the study. A review of literature indicated that student alcohol consumption often resulted in negative outcomes. The literature suggested that Caucasians consumed the most alcohol among all groups by ethnicity / race. The location of consumption played a major role in drinking behavior. Although most Eastern Illinois University underage students consumed large amounts of alcohol in residence hall rooms and at off-campus parties, the largest amount of alcohol consumed at a single event occurred at fraternity parties.

The research findings indicated that students who consumed alcohol compared to those who did not had greater likelihood of missing class, performing poorly on a test, getting into a physical/fight, experiencing threats of physical violence, being taken advantage of sexually, experiencing forced sexual touching and unwanted sexual intercourse. In addition, males significantly engaged in binge drinking more than females and there was a significant difference in seniors and graduate/professional students in average number of alcoholic drinks per week compared to other students.

There was a statistically significant difference within ethnicity and never using alcohol (abstinence/non-drinker). In average number of drinks per week, there were

significant differences between American Indian/Alaska Native and Black (non-Hispanic), White (non-Hispanic) and Black (non-Hispanic), Black (non-Hispanic) and American Indian/Alaska Native, Black (non-Hispanic) and White (non-Hispanic). In addition, there were significant differences by drinker and non-drinker status at all eight locations for alcohol consumption listed in the CORE survey (Item 20) except for when students were compared by ethnicity and location of alcohol consumption.

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I would like to thank the following people for the time, effort, and endless patience they have spent in helping me complete this thesis: Dr. James Wallace, who spent many long hours reading rough drafts and making helpful suggestions; Dr. Barbara Powell for taking the time to help me create a topic; Becky Markwell for taking time to help me find my data; Dr. Angela Yoder for her teaching that helped me grow inside and outside of the classroom. I would like to thank Mr. Eric Davidson again for supplying the data and his help with the statistical analysis. I would also like to thank Dr. Charles Eberly who became my thesis chair at the last minute due to Dr. James Wallace's health. My prayers are with Dr. James Wallace as he is on the road to recovery. I would like to thank Mr. Louis Hencken for holding my cohort accountable for completing their theses on time.

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#### CHAPTER I INTRODUCTION

Perhaps the most commonly cited problem on the campuses of American higher education institutions is the high risk consumption of alcohol among college students.

Numerous studies on the effects of alcohol on college students are available (Brower, 2002; CORE Institute, 2006; National Institute on Alcohol Abuse and Alcoholism, 2002; Quigley, Corbett, & Tedeschi, 2002; Hingson, R., Heeren, T., Winter, M., & Wechsler, H., 2005). The National Institute on Alcohol Abuse and Alcoholism calculated that a total of 1,400 college students die each year in incidents that involved alcohol intoxication (National Institute on Alcohol Abuse and Alcoholism, 2002). Among the many consequences associated with alcohol intoxication, known as negative related outcomes, are performing poorly academically (missed classes and performing poorly on a test), getting into a physical fight, driving under the influence, and / or sexual assault.

There are many issues regarding alcohol consumption and college students. Some examples of topics regarding alcohol consumption are the quality of college environment, fraternity and sorority life, driving under the influence, effects on academic performance, and consumption by ethnicity, classification, and gender. Brower (2002) believed that responsibility for alcohol consequences lies either with the individual student and the entire community. Brower wrote that college binge drinking, consuming five or more servings for a male and five or more servings for a female, is a product of the college environment. Subsequently, Brower posed the question, "Are college students alcoholics?" Brower agreed that students who attended college versus those who do not attend college that are between the ages of 18-22 do consume more alcohol. However,

Brower asserted that college students are not alcoholics. Brower concluded that college binge drinking was either an individualized problem that can be resolved by individuals' "choices and responsibilities and then the solution rests with individuals who seek help and who stick with their resolutions to change" or binge drinking is an "environmental problem determined by a set of campus, community, individual/developmental factors, then the responsibility for the solutions rest with all of us who can ensure that our campuses and communities do not encourage and support these behaviors" (p. 255).

There is much research addressing fraternity and sorority life and alcohol consumption. One example is a study of 3,406 members in one national college fraternity among 98 different chapters representing 32 states (Caudill, Crosse, Campbell, Howard, Luckey, & Howard, 2006). The study measured the fraternity men's estimated blood alcohol concentration levels and frequencies of consuming alcohol. The authors found that 97% of all the chapter members consumed alcohol, 86% were binge drinkers, and 64% were frequent binge drinkers. These figures compared to students in general from the Core Institute (2005) survey indicated that 84.5% consumed alcohol within the last year, 72.8% within the last month, 30% were heavy drinkers (binge drinking), and 25.7% were heavy and frequent drinkers. At least in the study cited, fraternity members reported far heavier and more frequent drinking episodes than non-affiliated students.

#### Purpose of Study

The purpose of the present study was to analyze the relationship between alcohol consumption and negative consequences among students attending Eastern Illinois University. In the present study, negative outcomes of alcohol consumption were defined as behavior resulting in poor academic performance, physical violence, driving under the

influence of alcohol, and sexual assault. For all tests of hypotheses, an alpha < .05 was accepted as a meaningful, statistical difference (Schumacher & McMillan, 2005). Data was analyzed using Chi-Square Test of Independence to see if two variables are independent or dependent of each other, Analysis of Variance (ANOVA) to test differences of groups' means between three or more groups, and t-tests to test differences of means between two groups (George & Mallery, 2007).

#### Research Questions and Hypotheses

Two general research questions were developed for the purposes of the present study along with statistical hypotheses based on the review of literature related to the research questions. Research questions and associated hypotheses are stated below.

#### Research Question I

To what extent does alcohol consumption (drinker or non drinker) affect Eastern Illinois University's students' involvement in negative related outcomes such as performing poorly academically, engaging in physical altercations (as perpetrator or victim), and involvement in sexual assault (as perpetrator or victim)?

H<sub>01</sub>: There will be no statistically significant difference in experiencing negative related outcomes in performing poorly academically by Eastern Illinois University's students' drinker status.

H<sub>a1</sub>: There are statistically significant differences in the amount of negative outcomes in performing poorly academically experienced by Eastern Illinois University's students who consume alcohol versus those who do not consume alcohol.

 $H_a$ :  $O \neq E$ 

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses include "cumulative Grade Point Average" (item 9), "performed poorly on a test or important project" (item 21b), "missed a class" (item 21h), and whether other student's drinking "interrupts your studying" (item 39a). Response data were categorical.

H<sub>o2</sub>: There will be no statistically significant difference in engaging in physical altercations (as perpetrator or victim) by Eastern Illinois University's students' drinker status.

 $H_{a2}$ : There are statistically significant differences in the amount of physical altercations (as perpetrator or victim) experienced by Eastern Illinois University's students' who consume alcohol versus those who not consume alcohol.

 $H_o: O = E$ 

 $H_a: O \neq E$ 

CORE Alcohol and Drug Survey items (Appendix A) analyzed to address the hypotheses included "got into an argument or fight" (item 21e), experienced "threats of physical violence" (item 25b), and experienced "actual physical violence" (item 25c). Response data were categorical.

H<sub>03</sub>: There will be no statistically significant difference in the amount of sexual assault (as perpetrator or victim) experienced by Eastern Illinois University's students' who consume alcohol versus those who do not consume alcohol.

H<sub>a3</sub>: There are statistically significant differences in the amount of sexual assault (as perpetrator or victim) experienced by Eastern Illinois University's students' who consume alcohol versus those who not consume alcohol.

 $H_o: O = E$ 

 $H_a$ :  $O \neq E$ 

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses included "have been taken advantage of sexually" (item 21n), experienced "taken advantage of another sexually" (item 210), experienced "forced sexual toughing or fondling" (item 25e), and "experienced unwanted sexual intercourse" (item 25f).

#### Research Question 2

To what extent do classification, gender, ethnicity, and location have any relationship to drinking until the point of intoxication among students attending Eastern Illinois University?

 $H_{al}$ : There is a statistically significant difference in alcohol consumption among Eastern Illinois University based on ethnicity.

$$H_{o1}$$
:  $\mu_1 = \mu_2 = \mu_3$ 

$$H_{a1}$$
:  $\mu_1 \neq \mu_2 \neq \mu_3$ 

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses include: respondents' ethnicity (item 3), "number of times [binge drank] within the last two weeks" (item 14), "average number of drinks consumed in a week" (item 15), frequency of "alcohol consumption within the last year" (item 17b), and frequency of "alcohol consumption within the last 30 days" (item 18b).

H<sub>o2</sub>: There will be no statistically significant differences in alcohol
 consumption among Eastern Illinois University students based on gender.
 H<sub>a2</sub>: There is a statistically significant difference in alcohol consumption
 among Eastern Illinois University students based on gender.

$$H_{o1}$$
:  $\mu_1 = \mu_2 = \mu_3$ 

$$H_{a1}\colon \mu_1 \neq \mu_2 \neq \mu_3$$

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses include: respondents gender (item 3), "number of times [binge drank] within the last two weeks (item 14),

"average number of drinks consumed in a week" (item 15), frequency of "alcohol consumption within the last year" (item 17b), and frequency of "alcohol consumption within the last 30 days" (item 18b).

H<sub>03</sub>: There will be no statistically significant difference in alcohol consumption among Eastern Illinois University based on classification.

H<sub>a3</sub>: There is a statistically significant difference in alcohol consumption among Eastern Illinois University based on classification

 $H_0$ : O = E

 $H_a: O \neq E$ 

CORE Alcohol Drug Alcohol Survey items (Appendix A) that will be analyzed for testing the above hypotheses include: "classification" (item 1), "number of times [binge drank] within the last two weeks (item 14), "average number of drinks consumed in a week" (item 15), frequency of "alcohol consumption within the last year" (item 17b), and frequency of "alcohol consumption within the last 30 days" (item 18b).

H<sub>04</sub>: There will be no statistically significant difference in alcohol consumption among Eastern Illinois University based on location of consumption.

H<sub>a3</sub>: There is a statistically significant difference in alcohol consumption among Eastern Illinois University based on location of consumption.

 $H_0$ : O = E

 $H_a: O \neq E$ 

CORE Alcohol and Drug Survey item (Appendix A) that will be analyzed for testing the above hypotheses include the respondents' location of alcohol consumption (item 20b).

#### Significance of the Study

The significance of the present study is that local findings might support prior national studies that students who consume alcohol experience negative outcomes (College Alcohol Survey, 2000; CORE Institute, 2006; National College Health Assessment, 2006; & National Institute on Alcohol Abuse and Alcoholism, 2002). The Principal Investigator (PI) analyzed EIU data collected by the CORE Alcohol and Drug Survey conducted through the Health Education Resource Center (HERC). The study includes a comprehensive data analysis on Eastern Illinois University's students' alcohol consumption and associated negative outcomes in 2008.

Anticipated outcomes of the present study include recommendations for future researchers and practitioners. Findings could affect Eastern Illinois University's Health Education Resource Center outreach efforts. If a large proportion of the Eastern Illinois University student population engages in the consumption of large amounts of alcohol with negative related outcomes, findings in the present study may be reflected in annual evaluations and surveys distributed and collected via HERC programs. The principal programs offered through HERC are the Alcohol and Drug Coalition, Alcohol-free Tailgate, Good Neighbors Campaign, AlcoholEdu, and the Sexual Assault Task Force.

#### Definitions of Terms

Negative outcomes: Negative outcomes associated with drinking until the point of intoxication included for the purposes of the present study are performing poorly academically, engaging in physical violence, driving under the influence, and sexual and non-sexual assault in being a perpetrator or victim.

Southern Illinois University - Carbondale that annually gathers data on alcohol and other drug use among college students in the United States (CORE Institute, 2006).

Binge drinking: Binge drinking is defined as consuming five or more servings for a man and four or more servings for women in a row within the last two weeks (Wechsler, 2000).

CORE Institute: The CORE Institute is an alcohol and other drug research center at

*Non-drinker*: A non-drinker is an individual who has not consumed alcohol within the last 30 days.

Drinker: A drinker is an individual who has consumed alcohol within the last 30 days Second hand effects: Second hand effects are acts by other intoxicated students towards students who are not intoxicated, for example: Insulted or humiliated, unwanted sexual advance, serious argument, pushed, hit, assaulted, had property damaged, had studying/sleeping interrupted, been a victim of sexual assault, date rape, experienced at least one of these behaviors (Wechsler, 2000).

Servings of alcohol: A serving of alcohol is one 12 oz. beer, 1.5 oz. of hard liquor, or 5-8 oz. of wine.

*NIAAA*: The National Institute of Alcohol Abuse and Alcoholism (NIAAA) is a program through the federal government that conducts, interprets, and implements research to

reduce alcohol related problems (National Institute of Alcohol Abuse and Alcoholism, 2002).

HERC: The Health Education Resource Center (HERC) provides services and programs to the Eastern Illinois University community to prevent and reduce preventable health risks that prevent students from succeeding in their academics and lifestyles (http://www.eiu.edu/~herc).

#### Chapter Summary

Chapter I contained an introduction, statement of the problem, significance of the study, and a description of the site for the present study. Chapter II is a review of the research and popular literature regarding student engagement in alcohol consumption and negative related outcomes. Chapter III contains the methodology of data collection and analysis. Chapter IV contains the research findings in both aggregate and raw data formats. Chapter V contains a discussion of the research findings, conclusions drawn and recommendations for future researchers in the area of college students, alcohol consumption, and the negative outcomes that often follow.

#### CHAPTER II REVIEW OF LITERATURE

#### Academic Performance

Engs, Ruth, and Hanson (1999); Jennison (2004); and Wechsler (2000) focused on alcohol use and academic outcomes among the college age population. Consistent findings across three studies suggested that students who engaged in drinking until the point of intoxication experienced negative academic outcomes. For example, they tended to miss class and perform poorly on tests. In addition, students do not always wait for Friday and Saturday to engage in high-risk alcohol consumption depending on the time of their Friday classes. A University of Missouri-Columbia study identified Thursday as the day of the week for heavy consumption of alcohol on college campuses depending on the time of students' Friday classes (Friday class schedule, 2007). The unnamed authors "found that students who did not have Friday classes consumed twice as much alcohol on Thursday as did those with Friday morning classes" (p. 602). Given these findings, these researchers concluded that drinking until the point of intoxication on successive nights increases the likelihood that students will perform poorly academically.

Jennison (2004) compared binge drinkers with non-binge drinkers in terms of problems related to academic performance in a ten year longitudinal study. The researcher found that students who engaged in binge drinking were more likely to drop out of college than were those who did not binge drink. Jennison observed that after students graduated from college, graduates who continued to drink alcohol excessively made less money than did graduates who did not binge drink after college. Therefore,

students who consumed alcohol until the point of intoxication in college and continued their habits after college were likely to have lower incomes than students who did not binge drink after college. A part of the reason why people who consumed alcohol until the point of intoxication made less money was because they were statistically more likely to not complete their college degree.

A national sample of 10,247 university students in the United States over a 12 year time period from the 1982-1983 to 1993-1994 academic years was used to measure alcohol consumption patterns. Engs, Ruth, and Hanson (1999) conducted the study using the Student Alcohol Questionnaire (SAQ). Their results indicated that among students who regularly consumed alcohol, there was a slight increase in missing class and getting lower grades because of too much drinking. According to this study, 7% received a lower grade and 27.8% missed class because of a hangover after consuming too much alcohol (p. 12). This study supported the finding that binge drinking affects students' academic performance. Short-term consequences, such as hangovers, cause students to miss class and this physiological malaise may lead to receiving lower grades.

The CORE Institute conducted a national study in 2005-2006 on colleges across the United States. The CORE Institute is an organization that focuses on research and assessments on alcohol and drug use. There were 53 colleges that administered the CORE Survey to a total of 33,379 students during fall term 2005. All institutions used sampling methods designed to measure a random and representative sample of their respective student bodies. Within the year prior to the survey, 21.8 % of respondents reported experiencing academic difficulties such as performing poorly on a test or major project as a result of consuming alcohol (CORE Institute, 2006). In addition, 30.7% of the students

surveyed missed a class as a result of consuming alcohol the night before. These responses are indicators that missing class and performing poorly on a test/project cause a decrease in academic performance.

Another comprehensive study on alcohol and college students was the College Alcohol Study (CAS) conducted by the Harvard School of Public Health College. Using a sample population of 14,000 students representing 120 four-year colleges, the study was conducted in 1993, 1997, 1999, and 2001 (Wechsler, 2000). The purpose of the CAS was to measure binge drinking and the secondhand effects it produced. The study defined secondhand effects as the harm binge drinkers inflicted on other students. The study defined binge drinking as consuming five or more servings of alcohol for a male and four or more servings of alcohol for a female within a two hour time span within the past two weeks.

Wechsler (2000) confirmed that binge drinking has secondhand effects on academic performance. The researchers analyzed the data and separated the institutions into two groups. The first group was low and high binge institutions. The high binge institutions indicated that 71% of the participants had their sleeping or studying disrupted by an intoxicated person(s), while in a low binge school 43% had their studying or sleeping disrupted by an intoxicated person. Alcohol can affect academic performance through second hand effects. If a person does not study or sleep well, they may not perform to their full potential.

Drake (1993) conducted a study on Eastern Illinois University's campus using the Core Drug and Alcohol Survey. Among the sample population of 384 students "31% were juniors, 29% were sophomores, and 40% were other, 92% were in the typical

college age range of 18-22, 52% were male, 66% lived on campus, 36% worked part-time or full-time", and "99% were full time students" (p. 5). One of the "serious personal problems" the research indicated as a result of alcohol and drug abuse within the last year included 60% "missed a class" and 27% of the respondents "performed poorly on a test" (p. 3).

#### Physical Assault/Fighting

Drake (1993) also found another "problematic experience" in "Public Misconduct" because 48% of the respondents indicated they "got into an argument or fight" and 23% had "been hurt or injured" within the last year due to a problematic experience as a "serious personal problem" (p. 4).

The chances of an individual being assaulted or involved in a fight are greatly increased when alcohol is involved. According to the National Institute on Alcohol Abuse and Alcoholism (2002), more than 500,000 students are injured due to alcohol consumption each year. Additionally, 600,000 students are assaulted or hit each year by an intoxicated student/peer. These statistics support the notion that alcohol intoxication has a direct correlation with physical harm. High risk behaviors such as fighting, assaults, and battery occur more often when students are intoxicated.

Significant research has been conducted on alcohol consumption and physical fighting. In 2002, Quigley, Corbett, and Tedeschi surveyed 339 college students (165 men and 174 women) and found alcohol to be a factor in physical violence. The researchers used the Violence Measurement Instrument which is a two item assessment of alcohol related to "violence" and "bar violence" (p. 319). The first item measures the

amount of times an individual "had been involved in a physical fight while consuming alcohol" with in the last year (p. 319). The second item measures the amount of times an individual "had been in a physical fight in a bar" (p. 319). The results indicated that 16% of the respondents had been in a fight while consuming alcohol in the past year. For half of the participants the fight took place at a bar. These findings supported other research that associates alcohol intoxication with violence.

DuRant, Champion, Wolfson, Omli, McCoy, Ralph, Wagoner, and Mitra (2007) conducted a study of physical violence and alcohol at the University of North Carolina to determine the number of men and women that reported themselves a victim or perpetrator of physical fighting with a date, boyfriend, or girlfriend (date fighting). These researchers wanted to know if there was a relationship between fighting and other health-risk behaviors. Their study involved a random sample of undergraduate students attending 10 universities, two of which were private and eight public, in the state of North Carolina. Research participants completed a Web-based survey in a randomized group trial of an intervention to prevent high-risk alcohol drinking behaviors and their consequences on college campuses and surrounding communities. The researchers randomly selected 1,095 students from each campus. They received their goal of 365 responses.

DuRant, et al. (2007) found that students who consumed large amounts of alcohol were at greater risk for date fighting violence and other criminal acts. The data also suggested that 5.6% of the men who were not consuming alcohol were victims of a date fight within the last month. A date fight is considered only physical fights between two or more individuals. Alternately, the researchers reported that 6.7% of the women who had not been drinking were victims of date fighting within the last month. The researchers

found that "men who had been threatened with physical violence because of another student's drinking during the previous 30 days were more likely to have been the victim of a date fight" (p. 293).

The National College Health Assessment (2006) reported findings from a 300 item survey across 78 post-secondary institutions that analyzed college students' overall health. Of the 56,637 students who completed the survey, 17.1% of females and 20.6% of males injured themselves physically when intoxicated. Another consequence of intoxication was that 10.3% of the men and 4.3% of the women physically injured another person.

Another study examining "secondhand binge drinking effects" (p. 201) on individuals who have not been drinking was conducted by the College Alcohol Survey (2000). A sample of 14,000 student respondents from 119 colleges were surveyed on how often they consumed alcohol and were affected by someone who has engaged in binge drinking in the past 30 days. The data suggested that when binge drinking had taken place at least once in the past two weeks, whether on a low binge drinking campus (20.5%), medium binge drinking campus (29.3), or high binge drinking campus (35.8%) respondents indicated that innocent individuals had "been pushed, hit, or assaulted" (p. 208).

Student responses to the national 2005-2006 CORE survey indicated that consumption of alcohol can lead to negative outcomes associated with drinking to the point of intoxication. According to Survey results, 31% of the students got into a fight or argument within the last year while consuming alcohol or other drugs (CORE Institute, 2006). Of the students who experienced physical violence and threats of physical

violence, 62.1% were under the influence of alcohol during the physical violence and 49.9% were under the influence during threats of physical violence.

The College Alcohol Survey results indicated intoxicated individuals did cause many secondhand effects including forms of physical violence. Survey participants indicated that 37% of the students were in a serious argument or quarrel with a person who was intoxicated (Wechsler, 2000), and 17% were pushed or assaulted by an intoxicated individual.

#### Driving While Intoxicated (DWI)

Students driving under the influence continue to be a serious threat to college and university communities. When a student under the influence dies in an accident, the entire community is affected. While some may think the problem has decreased, recent research suggests an increase in students driving while intoxicated.

Hingson, Heeren, Winter, and Wechsler (2005) examined data from the National Highway Traffic Safety Administration, Centers for Disease Control and Prevention, National Coroner Studies, the National Household Survey on Drug Abuse, and the Harvard College Alcohol Survey. They found that the proportion of students who reported driving while intoxicated increased from 26.5% to 31.4%, and reflected an increase from 2.3 million to 2.8 million students. The authors suggested greater enforcement of the drinking age and "zero tolerance laws" (p. 259). State Zero Tolerance laws make it illegal for anyone under the age of 21 to drive with a BAC level, blood alcohol content, greater than 0.000 percent. Hingson, Heeren, Zakocs, Winter, and Wechsler (2003) suggested that students who engaged in high-risk drinking behaviors,

consuming five or more servings of alcohol, before age 19 were more likely to drive after consuming alcohol and/or accept a ride from an individual who was driving while intoxicated.

McCarthy and Lynch (2007) surveyed 599 students (59% women and 41% men) at the University of Missouri-Columbia using the Driving After Substance Abuse Survey. Participant ethnicities were 87% Caucasian, 7% African American, 3% Asian American, 3% Hispanic, and 3% other/mixed. The survey consisted of three open-ended questions that measured drinking and driving within 2 hours of drinking one, three, and five or more servings of alcohol in the past three months. The results indicated that 50% of the males and 39% of the females drove after one serving of alcohol; 35% of the males and 24% of the females drove after three servings of alcohol and among participants that consumed five or more servings of alcohol and drove, 25% were males and 13% were females. These results suggested a strong correlation between alcohol consumption and high risk behaviors since one out of four males were binge drinkers (consuming five or more servings of alcohol at one sitting) and driving. Women were less likely to do so, but still 13% of the participants engaged in binge drinking and driving. Drinking and driving is a high risk behavior that can lead to death, legal penalties, and motor accidents.

The CORE Institute study indicated that there was a high rate of students engaging in being under the influence of alcohol and operating a vehicle. Of the survey respondents who consumed alcohol, 26.3% drove a car while under the influence within the past year (CORE Institute, 2006). The data from the 2005/2006 CORE Institute indicated that 1.45% were arrested for driving under the influence. That percentage may be small; however, in a study as large as 33,379 participants, that percentage comes out to

be approximately 484 arrests for driving under the influence. This study provided evidence that alcohol can lead to negative related outcomes such as driving under the influence.

The findings from the Harvard School of Public Health College Alcohol Study defined drinking until the point of intoxication as binge drinking. Wechsler (2000) defined binge drinking as five or more servings for a male and four or more servings of alcohol for a female in a row at least once within the last two weeks. The study separated the participants into another category called frequent binge drinkers. Frequent binge drinkers consumed four or more servings for a male and four or more servings of alcohol for a female within a given time period at least three times within the last two weeks.

Frequent high risk binge drinkers were five times more likely to experience dangerous behaviors than were non-binge drinkers. One of the behaviors was driving while under the influence of alcohol. Study results indicated that 75% of the frequent binge drinkers and 52% of the binge drinkers operated a vehicle while under the influence (Wechsler, 2000). The results strongly suggested that binge drinking could lead to other risky behaviors in addition to driving while intoxicated.

Drake (1993) conducted a study on Eastern Illinois University's students using the Core Drug and Alcohol Survey. Among the sample population of 384 students, Drake found 52% had "driven a car while under the influence" and "1% had been arrested for DWI/DUI" (p. 4). Local EIU data seem to confirm results reported in the larger cross campus national studies.

#### Sexual Assault

Drake (1993) also found indications of alcohol use associated with negative consequences in sexual assault crimes. Specifically, 18% had "been taken advantage of sexually" and 9% had "taken advantage of another sexually" (p. 4).

Seeking information on the relationship of alcohol and risk factors among college women, Anotoia, Ross, McDuffie, and McAuslan (1996) surveyed 1,160 women. The ethnic breakdown of the women was 60% Caucasian American, 29% African American, 4% Asian American, 3% Arabic American, and 1% Hispanic American. The instruments used in their study were the Sexual Assault Experiences Survey and Alcohol Consumption Survey. The Sexual Assault Experiences Survey was a modified version of the Sexual Experiences Survey. The questions assessed the incidence of forced sexual contact, verbally coerced sexual intercourse, attempted rape, and completed rape. The Alcohol Consumption Survey measured giving consent while intoxicated and misperceptions of consent. The results of this study indicated that 36% of the completed or attempted penetrations occurred while both genders had consumed alcohol. In addition, 18% of sexual coercion (persuaded, individuals agreed but manipulated) happened while both genders consumed alcohol. When only men consumed alcohol, the researchers indicated that 20% completed rape and 12% engaged in sexual coercion. If only women consumed alcohol, the incidence of rape and sexual coercion reported was less than 3%. These authors documented the relationship between consumption of alcohol and date rape. Even when one party abstains from alcohol, there is a reduction in the chance of rape and / or sexual coercion occurring.

In 1999, Ullman, Karabatsos, and Koss reported a strong relationship between alcohol consumption and sexual assault in a study using 2,972 men and the Offender Alcohol Abuse Propensity and Sexual Aggression Severity Surveys. The data indicated that about 25% of men admitted to sexual acts of aggression. Of the men that committed sexual acts of aggression, 44% reported using alcohol at the time of the assault, and 41.9% reported that women they attacked were consuming alcohol (p. 681).

There are different ways of looking at alcohol intoxication and sexual assault; however, if a woman or man has one beer, it does not necessarily mean that a sexual assault will take place. In a study of 177 women at a western university, researchers found that large amounts of alcohol consumption created a risky environment for women (Cue, George, & Norris, 1996). The findings indicated that if there were heavy consumption of alcohol, until the point of intoxication, the chances of sexual aggression increased. The researchers also found that going on a date and having a beer or two does not impact the likelihood of sexual crimes. However, if a person engages in high risk alcohol consumption then alcohol may be a factor in subsequent sexual aggressive behavior.

Moeller, Westmaas, and Woicik (2007) used the Intoxicated Behaviors Inventory (IBI) in a survey of 198 students enrolled in an introductory psychology class. Their study was a test of the validity of the IBI compared to the Big-Five Theory. The Big Five Theory suggests that five behaviors represent fundamental personalities: extraversion, emotional stability, agreeableness, conscientious, and openness to experience. The researchers found that the top two behaviors that resulted in binge drinking were socialization (i.e., flirting, dancing, laughing) and emotional liability (i.e., fights, crying,

apologizing, criticizing). The least common characteristic of binge drinkers was the exhibition of antisocial behavior (i.e., self-withdrawn, arguing, drinking in isolation).

A national study by the 2005-2006 CORE Institute indicated a relationship between alcohol and sexual assault. The responses indicated that of those who experienced sexual touching, 72.3% were intoxicated when they experienced forced sexual touching and 83.2% were intoxicated when they engaged in unwanted sexual intercourse (CORE Institute, 2006).

The Harvard School of Public Health College Alcohol Study found significant evidence of binge drinking related to unwanted sexual behaviors. The study surveyed 14,000 students attending college and found that almost 140 (1%) of the students experienced rape by an intoxicated individual (Wechsler, 2000). Also, 38% of the sample population experienced unwanted sexual advances (Wechsler, 2000). Researchers concluded that binge drinking can lead to risky behaviors such as rape and unwanted sexual advances.

#### Location of Consumption

In 2002, Harford, Wechsler, and Seibring reported findings from the 1997 and 1999 College Alcohol Surveys. They limited the data to students between the ages of 18-23, non-married, and who consumed alcohol within the last 30 days at dorm parties, off-campus parties, fraternity parties, and off-campus bars. A total of 12,830 participants met these criteria.

Students reported attendance at off campus parties (75.2%), off campus bars (67.6%), dormitory parties (37.9%), and fraternity parties (35.6%). Participants who

indicated they engaged in heavy drinking, 5 or more servings at a setting, attended fraternity parties (49%), off-campus parties (45.5%), residence hall parties (39.8%), and off-campus bars (37.4%). The researchers found that fraternity parties had the lowest overall attendance (35.6%) but they had the highest amount of reported heavy drinking (49%).

Clapp, Reed, Holmes, Lange, and Voas (2006) studied alcohol consumption at bars or private parties. The researchers randomly sampled, via telephone, graduate and undergraduate students attending two large public universities in the southwestern part of the Unites States during the 2000-2003 academic years. The participants reported amount and setting of alcohol consumption within the last 28 days. Of the 4,964 participants, 54.8% were female and 56.4% were Caucasian. The mean age of all participants was 24.58 years. The researchers found that "nearly 9 out of 10 participants under the age of 21 reported that their last drinking was at a party (87.1%) as opposed to a bar (12.3%)" (p. 279). This may be a consequence of circumventing the legal drinking age. However, the majority of participants 21 and over also consumed alcohol at their last party setting (65.8%) rather than at a bar/club (34.2%). At private or public events underage drinkers reported observing someone experiencing alcohol poisoning more often than did legal drinkers. Also, individuals under 21 experienced a fight (21.5%) more often than did participants of legal drinking age (5.4%) at a bar/club.

Harford, Wechsler, and Muthen (2003) utilized a sub set of data from the College Alcohol Surveys of 1997 and 1999. The sub set consisted of 16,138 students of traditional college age (18 to 24) who were never married. Researchers wanted to assess the phenomenon of heavy episodic drinking in different settings and alcohol related

problems with aggression (insults or pushing). The choices of location for the participants were limited to bars only, parties only, parties and bar, and no attendance. In this study, episodic heavy drinking was defined as consuming 5 or more servings in a row in the past two weeks for a man, or 4 or more servings in a row in the past two weeks for a woman.

Harford, Wechsler, and Muthen (2003) found that among 8, 426 college students from the 1997 and 1999 College Alcohol Survey, "episodic heavy drinking by exposure to drinking settings was as follows: no attendance, 43.5%; bars only, 56.9%; parties only, 67.6%; parties and bars, 75.2%" (p. 706). Among students attending both off campus parties and bars in the last month, 57% were women. The participants' year in school was 18.4% freshmen, 20.1% sophomore, 27.8% junior, and 33.6% senior. The residence of the participants were same sex residence hall, 11.7%, coed residence hall, 24.8%, Greek house, 4.4%, off campus without parents, 43.1%, off campus with parents, 10.3%, and other university housing, 5.8%. Among students attending parties, 7.65% did not use alcohol, 22.8% consumed 1-2 servings, 28.4% consumed 3-4 servings and 41.2% consumed 5 or more servings. Among students socializing at bars, 11.6% consumed no alcohol, 25% consumed 1-2 servings, 27% consumed 3-4 servings, and 35.4% consumed 5 or more servings (p. 706). The researchers found no significant evidence that residence was a factor in alcohol related problems with aggressive behavior regarding gender (i.e. pushed or insulted). Coed residence halls and Greek houses had significant amounts of alcohol related problems with aggressive behavior. The researchers concluded that heavy episodic drinking was significantly related to higher reports of problems. Drinking levels at off-campus parties and bars were significantly related to disruptive behavior or victims or altercations (i.e. argument with friends, damage property, trouble with police, getting

hurt or injured, being insulted, serious argument, and being pushed, hit, or assaulted).

Drake (1993) compared Eastern Illinois University's 1991 pre-test of 783 respondents using the 1988-91 version of the CORE Drug 1993 to the post-test results of 384 respondents using the "CORE survey form 1991" (p.1) on respondent location of alcohol consumption between the pre-test and post-test.

Drake (1993) found that the respondents for the pre-test indicated that 5% "never used" alcohol, 53% used alcohol "on campus", 59.1% in "residence hall", 29.2% at a "fraternity/sorority", 77.3% "off campus", 66% "where you live", 39.1% "in a car", and 28.7% "other". The post-test respondents indicated 4.9% "never used" alcohol, 18.0% at "on campus events", 50.0% at the "residence hall", 26.8% at a "fraternity/sorority" chapter house, 84.4% at a "bar/restaurant", 52.9% at "where you live", 32.6% "in a car", 68.0% at a" private party", and 21.6% "other"(p. 54). No tests of significance were performed between the pre-test and post-test data.

# Consumption by Gender

Utilizing personal interviews, Peralta and Cruz (2006) conducted a survey on alcohol consumption and violence among 78 students at a midsized university. The study took place from 1997-2001. The participants were 71% White, 26% Black, 2.5% Hispanic, and 0.5% Asian. The purpose of this study was to analyze the experiences and personal perceptions with alcohol-related violence. The instrument was an open-ended interview guide consisting of 12 questions.

The researchers grouped the data into categories to represent frequency distributions of experiences and attitudes about alcohol related violence while in college.

There were significant differences in gender responses for "feared rape" (male 6%, female 64%), "perpetrated alcohol related violence" (male 25%, female 0%), and "victim of alcohol related sexual aggression" (male 18%, female 27%) (Peralta, & Cruz, p. 114). Their findings suggested that 88% of the total population believed that alcohol played a casual role in alcohol related violence. The major findings pertained to gender differences in drinking and violence. While both men and women were more likely to have engaged in alcohol related violence, college men were more likely to have engaged in violent physical assaults and experienced the consequences after consuming alcohol.

Fossos, Neighbors, Kaysen, and Hove (2007) utilized the daily Drinking

Questionnaire to measure individual frequency of alcohol consumption among 780

incoming freshmen at the University of Washington. The sample population consisted of

(65.9%) White, (23.59%) Asian, (4.36%) Hispanic/Latino, (1.28%) Black, (0.51%)

Native American, (4.10%) and (0.26%) Other unspecified participants. The researchers

found gender differences in the amount of alcohol consumption between males and

females. The researchers found that males with drinking problems consumed

significantly more drinks per week (14.15 servings) as opposed to females (9.84 servings)

with drinking problems.

Piane and Safer (2008) conducted a study of 935 university students attending California State University - Long Beach, a large, ethnically diverse, public university. The sample population was 62% female. The researchers defined heavy drinkers as students who consumed five or more drinks at one sitting for males and 4 or more drinks at one sitting for females at least once in the last two weeks. The researchers found significant differences in men responding "yes" to a list of alcohol expectations: "alcohol

makes it easier to deal with stress, it facilitates a connection with peers, gives people something to talk about, facilitates male bonding, facilitates female bonding, allows people to have more fun, makes food taste better, makes women sexier, makes me sexier, facilitates sexual opportunities, and friends drink alcohol at least once a month" (Piane, & Safer, 2008, Table 2, p. 78-79). In addition to gender, the researchers found a difference in alcohol consumption among Caucasian and Asian females. On the occasions in the past 30 days when the participants drank, Caucasian females consumed significantly more servings (1.55) of alcohol than did Asian females.

# Consumption by Ethnicity

The ethnicity of the college student may indicate different rates of alcohol consumption. Although it is important to see each student as individuals researchers have tried to find a correlation between alcohol consumption and ethnicity.

Rice (2006) conducted a study of 1,201 students attending a minority serving institution. The purpose of the study was to examine students' perception of others' drinking and the amount of actual personal drinking by ethnicity at a typical party or social event. Rice divided findings by ethnicity into three categories, White, Black, and Hispanic, utilizing the same methods of data collection and analysis as the National College Health Assessment Spring 2000 Survey. Rice concluded that all ethnicities measured perceived they consumed two servings less than did their peers. Specifically, African Americans consumed the least amount of alcohol and White Caucasians consumed the most alcohol at a party or social event. The study indicated that White Caucasian students consumed 3.6 servings of alcohol compared to African Americans

who only consumed 1.6 average servings of alcohol at a social event or party. The Hispanic group consumed an average of 3.4 servings of alcohol. However, this study was at a minority serving institution and the Hispanic population had the most participants in the survey.

Meilman, Presley, and Lyerla (1994) found a significant difference in alcohol consumption between Black and White students. The researchers found that Black students "average weekly amount of alcohol consumption was a third of that of White students' alcohol consumption" (p. 70). The study supported findings in other studies in which White students consumed more alcohol than did Black students. In addition to amount of alcohol consumed, White students were found to engage more in negative related outcomes associated with alcohol consumption than were Black or Hispanic students. For example, whereas White students experienced hangovers 15% more than did Black students, there was an enormous difference in academic performance between these two groups of students attributed to the severity of alcohol consumption. Only 2.9% of the Black participants indicated their academics were affected by alcohol. However, 24.5% of White participants indicated their academic performance was affected by their alcohol consumption. In addition to academic performance, White students reported missing class (32.3%) almost twice as much as did Black students (17.3%) because of consuming alcohol. Also, 35.9% of the White participants reported getting into a fight and/or argument versus Black students (12.7%) who reported engaging in similar behaviors. The researchers concluded that White students consumed more alcohol and experienced negative related outcomes associated with alcohol consumption more often than did Black students.

Broman (2005) surveyed 1,587 college students from six large public universities, two liberal arts colleges, and one community college in the Midwest. The majority of students (90%) were contacted via mail. Conclusions were based on the responses of 82% of the sample population (594 Black and 907 White students) that was between the ages of 18-24. A small representation of various other ethnicities consisted of 86 participants for a total sample population of 1,587 students. For the purposes of this study, researchers focused only on the Black and White students. The research objective was to measure heavy episodic drinking as a function of coping with stress over the prior 30 days. Broman defined heavy episodic drinking as consuming more than 4 servings of alcohol at a time.

Broman hypothesized that stress was linked to substance abuse for both Black and White students. Although Broman found that black students experienced significantly more traumatic stress than did white students (p<.05), White students engaged in heavy episodic drinking at a rate 3 times greater than did Black students. The researcher concluded that there was a difference in heavy episodic consumption based on race, but suggested more research was needed to confirm the influence of stress as a factor.

# Consumption by Classification

The Core Institute (2004) conducted a cross-tabulation report on Eastern Illinois University's freshmen students. The study included 66 respondents that were classified as freshmen between the ages of 18-22. The majority of the participants were "White (non-Hispanic), 89.4%, female, 80.0%, single, 100% full time", and "lived on campus, 98.3%" (p. 1). The rest of the participants were "1.5%, American Indian/Alaskan Native, 1.5%,

Hispanic, 1.5%, Asian/Pacific Islander, 1.5% other", and "4.5%, Black (non-Hispanic)" (p. 1). The data indicated the percentage of students consuming 5 or more servings of alcohol in a sitting within the last two weeks (binge drinking) and average number of drinks consumed in a week. The respondents indicated that 56.1% did not consume 5 or more servings of alcohol in one sitting within the last two weeks, 12.1% once, 9.1% twice, 16.7% 3-5 times, 6.1% 6-9 times and none reported 10 or more times. The respondents indicated that 71.9% consumed five or fewer servings a week, 0.0% did not consume 6-9 servings a week, and 28.4% consumed 10 or more servings a week.

Marklein (2009) analyzed an online course that had 30,000 students on 76 different campuses. The findings of this study indicated that of the respondents who have consumed at least "one [alcohol] serving within the last 14 days spent an average of 10.2 hours a week drinking and about 8.4 hours studying"

(www.usatoday.com/news/education, Retrieved March 11, 2009)

A national study by the CORE Institute (2006) surveyed 33,379 undergraduate students from 53 colleges in the United States reported the average servings of alcohol consumed in a week by classification: "Freshmen (5.26), Sophomore (5.49), Junior (6.17), Senior (6.79), Graduate/Professional (4.12), Not Seeking Degree (6.32), and Other (5.22)"(www.siu.edu/~COREinst, Retrieved September 19, 2008). In addition to alcohol servings per week, the study found that heavy drinkers, five or more drinks in one sitting at least once during the last two weeks, were by classification: "Freshmen (33.3%), Sophomore (32.6%), Junior (29.0%), Senior (25.7%), Graduate/Professional (22.7%), Not Seeking Degree (13.3%), and Other (9.9%)" (www.siu.edu/~COREinst, Retrieved September 19, 2008).

White, Kraus, and Swartzwelder (2006) conducted a study of 10,424 first semester freshmen and their alcohol consumption at 14 schools in the United States during the fall of 2003. The researchers found that 55% of students who participated in the study consumed alcohol within the last two weeks. The study indicated that "average number of drinking occasions was 4.35 for males and 3.35 for females within the last two week (p. 1007). In addition to the number of occasions "41% of males and 34% of females met or exceeded the threshold for binge drinking at least once in the past two weeks" (p. 1007). Also, "1 of 5 males consumed 10+ drinks and 1 of 10 females consumed 8+ drinks [which is] twice the binge threshold, at least once in the previous two weeks" (p.1007). The researchers found that their study indicated that a "fairly large subset of college freshmen, particularly males, drink at levels" that surpass binge drinking (p. 1009).

#### Chapter Summary

The literature review has demonstrated that college students experience negative related drinking outcomes in terms of performing poorly academically, physical fighting, driving under the influence, and sexual assault. In addition to negative outcomes, some demographic characteristics do effect alcohol consumption. For ethnicity, White-Caucasians consume more alcohol then African Americans. Also, males engage in binge drinking more than females and high risk drinking took place in greater amounts at fraternity parties. Finally, students consumed alcohol at various settings, but off campus parties were the most common location reported.

#### CHAPTER III

#### METHODOLOGY

The purpose of the present study, based on data collected by Eastern Illinois University's Health Education Resource Center using the CORE survey, was to examine Eastern Illinois University students who engaged in consuming alcohol and their reports of any associated negative outcomes. Negative outcomes were defined in the present study as poor academic performance, getting into a physical fight, driving under the influence, and / or sexual assault.

#### Instrumentation

The 39-item CORE Alcohol and Drug Survey (long form) assesses alcohol and other drug use among college students. The survey items collect data on demographic background, prevalence of alcohol use, heavy/frequent use of alcohol, and negative consequences associated with consuming alcohol (Appendix C). The web-based instrument used in the present study was developed by the CORE Institute, and is annually conducted by CORE researchers on campuses across the United States. The CORE Institute makes the survey available to each campus, analyzes the data and provides summary reports and both aggregate and raw data sets for local analysis. Data for the present study were obtained with permission from the Health Education Resource Center at Eastern Illinois University and the CORE Institute of Southern Illinois University-

Carbondale. The PI received data files in SPSS format that were analyzed for the purposes of this study.

# **Participants**

Participants in the present study were 1,146 Eastern Illinois University students enrolled in spring of 2008 who participated in the CORE Institute Drug and Alcohol Survey. Their ages ranged from 18 to 58 years and represented all classes, including 116 freshmen (10.12 % of total), 182 sophomores (15.88%), 274 juniors (23.91%), 399 seniors (34.82%), 172 graduate/professional (15.01%), and three respondents who did not indicate their class/missing (0.26%). On the basis of ethnicity, participants self-reported as five American Indian/Alaska Natives (0.004%), 33 Hispanic (0.03%), 33 Asian/Pacific Islander (0.03%), 1006 White non-Hispanic (87.78%), 44 Black non-Hispanic (3.84%), 16 "Other" (1.40%), and nine respondents who did not indicate ethnicity (0.79%). By gender respondents consisted of 306 males (26.70%), 835 females (72.86%), two who marked "other" (0.17%), and three respondents who did not indicate gender (0.26%).

# Research Questions and Hypotheses

Two general research questions were developed for the purposes of the present study along with statistical hypotheses based on the review of literature related to the research questions. Research questions and associated hypotheses are stated below.

# Research Question I

To what extent does alcohol consumption (drinker or non drinker) affect Eastern Illinois University's students' involvement in negative related outcomes such as performing poorly academically, engaging in physical altercations (as perpetrator or victim), and involvement in sexual assault (as perpetrator or victim)?

 $H_{o1}$ : There will be no statistically significant difference in experiencing negative related outcomes in performing poorly academically by Eastern Illinois University's students' drinker status.

 $H_{al}$ : There are statistically significant differences in the amount of negative outcomes in performing poorly academically experienced by Eastern Illinois University's students who consume alcohol versus those who do not consume alcohol.

 $H_o: O = E$ 

 $H_a: O \neq E$ 

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses include "cumulative Grade Point Average" (item 9), "performed poorly on a test or important project" (item 21b), "missed a class" (item 21h), and whether other student's drinking "interrupts your studying" (item 39a). Response data were categorical.

 $H_{o2}$ : There will be no statistically significant difference in engaging in physical altercations (as perpetrator or victim) by Eastern Illinois University's students' drinker status.

H<sub>a2</sub>: There are statistically significant differences in the amount of physical altercations (as perpetrator or victim) experienced by Eastern Illinois University's students' who consume alcohol versus those who not consume alcohol.

 $H_0$ : O = E

 $H_a: O \neq E$ 

CORE Alcohol and Drug Survey items (Appendix A) analyzed to address the hypotheses included "got into an argument or fight" (item 21e), experienced "threats of physical violence" (item 25b), and experienced "actual physical violence" (item 25c). Response data were categorical.

 $H_{o3}$ : There will be no statistically significant difference in the amount of sexual assault (as perpetrator or victim) experienced by Eastern Illinois University's students' who consume alcohol versus those who do not consume alcohol.

 $H_{a3}$ : There are statistically significant differences in the amount of sexual assault (as perpetrator or victim) experienced by Eastern Illinois University's students' who consume alcohol versus those who not consume alcohol.

 $H_o: O = E$ 

 $H_a$ :  $O \neq E$ 

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses included "have been taken advantage of sexually" (item 21n), experienced "taken advantage of another sexually" (item 21o), experienced "forced sexual toughing or fondling" (item 25e), and "experienced unwanted sexual intercourse" (item 25f).

# Research Question 2

To what extent do classification, gender, ethnicity, and location have any relationship to drinking until the point of intoxication among students attending Eastern Illinois University?

H<sub>o1</sub>: There will be no statistically significant difference in alcohol consumption among Eastern Illinois University based on ethnicity.

H<sub>a1</sub>: There is a statistically significant difference in alcohol consumption among Eastern Illinois University based on ethnicity.

 $H_{o1}$ :  $\mu_1 = \mu_2 = \mu_3$ 

 $H_{a1}$ :  $\mu_1 \neq \mu_2 \neq \mu_3$ 

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses include: respondents' ethnicity (item 3), "number of times [binge drank] within the last two weeks" (item 14),

"average number of drinks consumed in a week" (item 15), frequency of "alcohol consumption within the last year" (item 17b), and frequency of "alcohol consumption within the last 30 days" (item 18b).

H<sub>o2</sub>: There will be no statistically significant differences in alcohol
 consumption among Eastern Illinois University students based on gender.
 H<sub>a2</sub>: There is a statistically significant difference in alcohol consumption
 among Eastern Illinois University students based on gender.

$$H_{o1}$$
:  $\mu_1 = \mu_2 = \mu_3$ 

$$H_{a1}$$
:  $\mu_1 \neq \mu_2 \neq \mu_3$ 

CORE Alcohol and Drug Survey items (Appendix A) that will be analyzed to address each of the above hypotheses include: respondents gender (item 3), "number of times [binge drank] within the last two weeks (item 14), "average number of drinks consumed in a week" (item 15), frequency of "alcohol consumption within the last year" (item 17b), and frequency of "alcohol consumption within the last 30 days" (item 18b).

 $H_{o3}$ : There will be no statistically significant difference in alcohol consumption among Eastern Illinois University based on classification.

 $H_{a3}$ : There is a statistically significant difference in alcohol consumption among Eastern Illinois University based on classification

$$H_o: O = E$$

$$H_a: O \neq E$$

CORE Alcohol Drug Alcohol Survey items (Appendix A) that will be analyzed for testing the above hypotheses include: "classification" (item 1), "number of times [binge drank] within the last two weeks (item 14), "average number of drinks consumed in a week" (item 15), frequency of "alcohol consumption within the last year" (item 17b), and frequency of "alcohol consumption within the last 30 days" (item 18b).

H<sub>o4</sub>: There will be no statistically significant difference in alcohol consumption among Eastern Illinois University based on location of consumption.

 $H_{a3}$ : There is a statistically significant difference in alcohol consumption among Eastern Illinois University based on location of consumption.

 $H_0$ : O = E

 $H_a: O \neq E$ 

CORE Alcohol and Drug Survey item (Appendix A) that will be analyzed for testing the above hypotheses include the respondents' location of alcohol consumption (item 20b).

# Method of Data Analysis

The data for the present study were analyzed using the Statistical Package for the Social Sciences (SPSS) version 16. Specifically, data analysis was conducted on CORE survey responses from 1,146 Eastern Illinois University

students to the 2008 CORE Institute Drug and Alcohol Survey. Data were analyzed using frequency distributions and Chi-Square Tests of Independence. Data were reported in the aggregate, utilizing cross-tabulations presented in table formats. The focus was on the results of negative outcomes relating to alcohol consumption such as performing poorly academically, physical violence, driving under the influence, and sexual assault. This study did not require Institutional Review Board approval because the data were previously collected by the CORE Institute and Eastern Illinois University's Health Education Resource Center with prior Institutional Review Board approval.

To test hypotheses as specified, the study utilized responses to class status (item 1), ethnic origin (item 3), questions 1 (classification), 3 (ethnic origin), 5 (gender), 14 (five or more drinks at one sitting the participants have had in the last two weeks), 15 (average number of drinks consumed a week), and 17b (used alcohol within the last year) as means of comparison (Appendix C).

The researcher used Chi-square Tests of Independence to compare participant responses on the basis of gender, classification, and ethnicity items 1, 3, and 5 (Schumacher & Macmillan, 2005). The Chi-square Test was chosen because gender, classification, and ethnicity are independent categorical variables used to assess alcohol consumption rates. For all tests of hypotheses, an alpha < .05 was accepted as a meaningful, statistical difference (Schumacher & Macmillan, 2005).

The Analysis of Variance was used to compare differences between multiple means between ethnic groups: American Indian/Alaska Native, Hispanic,

Asian Pacific Islander, White, Black, and Other (item 3) and "average number of drinkers per week" (item 15) and multiple means of classification groups: freshmen, sophomore, junior, senior, and graduate/professional (item 1) and "average number of drinks per week" (item 15). For significant ANOVAs, Tukey Post-Hoc analyses were then performed to determine which sets of paired means were statistically different from each other. The *t*-test of the difference between means gender (item 5) for "average number of drinks per week" (item 15) was performed to determine if there was a difference in mean number of drinks consumed per week among males and females.

# Chapter Summary

This study analyzed the data from 1,146 respondents to the 2008 CORE Drug and Alcohol Survey. The participants were students attending Eastern Illinois University in the fall of 2008. The data were analyzed using SPSS by conducting Chi-Square Tests of Independence, Analysis of Variance (ANOVA) and *t*-tests of the difference between means (George & Mallery, 2007).

#### CHAPTER IV

#### RESULTS

## Description of the Findings

An analysis of data from the 2008 CORE Institute Drug and Alcohol Survey completed by 1,146 Eastern Illinois University students are reported below in terms of the negative outcomes of drinking stipulated for the purposes of this study: poor academic performance, getting into a physical fight, driving under the influence, and / or sexual assault.

## Research Question I

Results for Research Question I are detailed below in the order of the hypotheses developed for statistical analysis. For all tests of hypotheses, an alpha < .05 was accepted as a meaningful, statistical difference (Schumacher & Macmillan, 2005).

Poor Academic Performance.--The first negative outcome was stipulated as poor academic performance. In this study questions "cumulative grade point average" (item 9), "performing poorly on a test" (item 21b), "missed a class" (item 21h), and "interrupts your studying" (item 39a) from the CORE Institute Drug and Alcohol Survey were tested for statistical differences between students who self-reported as drinkers and students who self-reported a non-drinkers. Drinkers were students who consumed alcohol within the last month (item 18b). A 2 x 5 Chi-square test of Independence indicated a nearly significant relationship between GPA and drinker status,  $\chi^2(4, 1135) = 9.47$ , p = .051) (Appendix B, Table 1). Students' GPA was close to being a dependent variable on drinker

status, but in this data the difference was not statistically significant. There was also no significant difference between drinkers and non- drinkers being "interrupted studying" as a result of alcohol consumption found in these data,  $\chi^2$  (1, 1125) = 2.254, p = 0.133) (Table 2). There was a significant difference between drinkers and non-drinkers "performing poorly on a test"  $\chi^2$ (1, 1125) = 56.560, p = .000) (Table 2), and drinkers and non-drinkers "missing class,"  $\chi^2$  (1, 1125) = 88.221, p = .000) (Table 2). Therefore, poor test scores and missing class were dependent upon student drinking status.

Physical Fighting/Altercations.--The second negative outcome compared to drinker / non-drinker status was getting into a physical fight. In this study survey items "got into an argument or fight" (item 21e), experienced "threats of physical violence" (item 21b), and experienced "actual physical violence" (item 25c) from the CORE Institute Drug and Alcohol Survey (Appendix A) were tested for statistical differences between students who self-reported as drinkers and students who self-reported as non-drinkers. There was a significant difference between drinkers and non-drinkers who "got into an argument or fight"  $\chi^2$  (1, 1124) = 107.603, p = .000) (Table 2), and experienced "threats of physical violence"  $\chi^2$  (1, 1126) = 6.380, p = .012) (Table 2). However, there was no statistical difference between drinkers and non-drinkers among respondents who experienced "actual physical violence"  $\chi^2$  (1, 1125) = 2.477, p = .115) (Table 2). Therefore, "got into an argument or fight" and experiencing "threats of physical violence" were dependent upon drinking status and experiencing "actual physical violence" was independent from drinker status.

Sexual Assault (perpetrator or victim).--The third negative outcome compared to drinker and non-drinker status was experiencing sexual assault as a perpetrator or victim. In this study "have been taken advantage of sexually" (item 21n), experienced "taken advantage of another sexually" (item 250), experienced "forced sexual touching" (item 25e) and "experienced unwanted sexual intercourse" (item 25f) from the CORE Institute Drug and Alcohol Survey (Appendix A) were tested for statistical differences between students who reported as drinkers and students who self-reported as non-drinkers. There was a significant difference between drinkers and non-drinkers who "have been taken advantage of sexually"  $\chi^2$  (1, 1123) = 14.739, p = .000) (Table 2), experienced "forced sexual touching"  $\chi^2(1, 1123) = 4.516$ , p = .034) (Table 2), and "experienced unwanted sexual intercourse"  $\chi 2$  (1, 1127) = 4.881, p = .049) (Table 2). However, there was no statistical difference found between drinkers and non-drinkers with respondents who have "taken advantage of another sexually"  $\chi^2$  (1, 1129) = 1.945, p = .163) (Table 2). Therefore, "have been taken advantage of sexually", experienced "forced sexual touching" and "experienced unwanted sexual intercourse" depends on drinking status and who have "taken advantage of another sexually" is independent of drinker status.

The findings from the 2008 CORE Institute Drug and Alcohol Survey completed by 1,146 Eastern Illinois University students are reported below in terms of demographics that may have a relationship to Eastern Illinois University's students and alcohol consumption. The demographics stipulated for the purpose of this study were gender, ethnicity, classification, and location of alcohol consumption.

## Research Question II

Results for Research Question II are detailed below in the order of the hypotheses developed for statistical analysis. For all tests of hypotheses, an alpha < .05 was accepted as a meaningful, statistical difference (Schumacher & Macmillan, 2005).

Ethnicity.--Respondents indicated their ethnicity in this study as American Indian/Alaska Native, Hispanic, Asian/Pacific Islander, White (non-Hispanic), Black (non-Hispanic), and Other. In this study "ethnicity" (item 3), "never used alcohol" (item 20b1), "average number of drinks in a week" (item 15) from the CORE Institute Drug and Alcohol Survey (Appendix A) were tested for statistical differences between ethnicity and alcohol consumption. There was a significant difference between ethnicity and "never used alcohol" (item 20b1)  $\chi 2$  (5, 1137) = 23.467, p = .000) (Table 3). Therefore, alcohol consumption depends on ethnicity of the student.

Using a one-way ANOVA to compare the statistical difference of means in average alcohol consumption per week by ethnicity, there was a significance difference (F=4.062, df 5,1136, p<.001) (Table 39). Tukey post-hoc analyses indicated that statistical differences between ethnic groups were specifically between American Indian/Alaska Native (M=13, SD=15.652) and Black (non-Hispanic) (M=1.32, SD=3.826) White (non-Hispanic) (M=5.67, SD=8.732) and Black (non-Hispanic), Black (non-Hispanic) (M=1.32, SD=3.826) and American Indian/Alaska Native (M=13, SD=15.562), Black (non-Hispanic) (M=1.32, SD=3.826) and White (non-Hispanic) (M=5.67, SD=8.732) (Table 40). There were some limitations to this analysis that will be discussed in Chapter V.

Gender.--In this study "number of times [binge drank] within the last two weeks" (item 14), "consumed alcohol within the last year" (item 17b), and "consumed alcohol within the last 30 days" (item 18b) from the CORE Institute Drug and Alcohol Survey (Appendix A) were tested using the Chi-Square Test of Independence between alcohol consumption and gender. There was no significance in consuming alcohol within the last 30 days  $\chi^2$  (2, 1136) = 1.264, p = .531) (Table 6) and within the last year  $\chi^2$  (2, 1142) = .285, p = .867) (Table 5) by gender. Therefore, gender was not dependent on whether a student consumed alcohol or not (i.e. drinker or non-drinker). However, there was a significant statistical difference in gender and amount of binge drinking within the last two weeks  $\chi^2$  (10, 1143) = 28.799, p = .001) (Table 4). Therefore, binge drinking depends on the gender of the student attending Eastern Illinois University (Table 4). This study indicated that the average number of servings males consumed in one week (mean, 8.37, s.d. 11.72) compared to females (mean, 4.32, s.d. 6.72), t (1134= 7.242) p = .000) (Table 41).

Classification.--In this study questions "number of times [binge drank] within the last two weeks" (item 14), "consumed alcohol within the last year" (item 17b), and "consumed alcohol within the last 30 days" (item 18b) from the CORE Institute Drug and Alcohol Survey (Appendix A) were tested for statistical difference between alcohol consumption and classification (i.e. freshmen, sophomore, junior, senior, and graduate/professional students). There were significant differences in alcohol consumption by class in school and the number of times students consumed "five or more servings of alcohol within the last two weeks"  $\chi^2$  (20, 1143) = 36.658, p = .013) (Table 7), "consumed alcohol within the last 30 days"  $\chi^2$  (4, 1136) = 16.756, p = .002) (Table 9),

and "consumed alcohol within the last year"  $\chi 2$  (4, 1142) = 21.077, p = .000) (Table 8). Therefore, consuming alcohol (drinker or non-drinker) and engaging in binge drinking was dependent on classification.

Location.--In this study question the location of alcohol consumption (item 20) was compared by ethnicity, gender, and amount of consumption (i.e. consumed alcohol within the last 30 days, year, average servings of alcohol per week, and number of times consuming 5 or more servings in two weeks). There was a statistical significance in all the settings: on campus, in residence hall, fraternity or sorority, bar or restaurant, where you live, in a car, private party, and other location by gender and amount of alcohol consumption. (Table 42-49). However, there was some variances in location of alcohol consumption by ethnicity. There was significant statistical difference in consuming alcohol at bar or restaurant (item 20b5)  $\chi^2$  (5, 1137) = 37.674, p = .000) (Table 3), where you live (item 20b6)  $\chi^2$  (5, 1137) = 34.131, p = .000) (Table 3), and at a private party (item 21b8)  $\chi^2$  (5, 1137) = 25.414, p = .000) (Table 3). There was no significant statistical difference at residence hall, fraternity or sorority, in a car, or other location by ethnicity. In this study, consuming alcohol at a bar or restaurant, where you live, and/or at a private party is dependent on the ethnicity of the student.

## Chapter Summary

For Research Question I (negative outcomes) this study indicated that there was statistically significant differences in performing poorly on a test, missing class, getting into an argument or fight, threats of physical violence, having been taken advantage of sexually, having experienced forced sexual touching, and having experienced unwanted sexual intercourse. For Research Question II (demographics) there was a statistically

significant difference in ethnicity and never used alcohol, and among: American Indian/Alaska Native and Black (non-Hispanic), White (non-Hispanic) and Black (non-Hispanic), Black (non-Hispanic) and American Indian/Alaska Native, Black (non-Hispanic) and White (non-Hispanic), there was significance within average number of drinkers per week. In addition, there was significance in drinker and non drinker at all the locations of alcohol consumption except for at residence hall, fraternity or sorority, in a car, or other location by ethnicity.

#### CHAPTER V

#### DISCUSSION/CONCLUSIONS/RECOMMENDATIONS

#### Discussion/Conclusion

The purpose of this study, based on data collected by Eastern Illinois University's Health Education Resource Center, was to examine Eastern Illinois University students who engaged in consuming alcohol and their reports of any associated negative outcomes. Negative outcomes were defined in the present study as poor academic performance, getting into a physical fight, driving under the influence, and / or sexual assault. In addition to negative outcomes the researcher tested for significance on alcohol consumption and demographics (i.e. gender, classification, location of consumption, and ethnicity). The analysis used selected questions from the Core Drug and Alcohol Survey (Appendix A).

For research question I, the CORE 2005-2006 survey found similar findings where alcohol consumption effected students academically by missing class and performing poorly on a test. Whereas Wechsler (2000) found in the College Alcohol Survey that students studying were interrupted by others who were intoxicated, there was no statistical significance in students reporting their studying being interrupted by alcohol in the present study (Appendix B, Table 2).

Drake (1993) indicated in a pilot administration of the CORE survey to 384

Eastern Illinois University students that during the last year, 45% got into an argument or fight while they were under the influence of alcohol. Drake did not test for statistical differences between drinker status and negative consequences; however, results from the

present study testing for a statistical difference between drinker status and getting into an argument or fight found that 35.6% of drinkers reported getting into an argument or fight  $\chi^2$  (1, 1124) = 107.603, p = .000) (Appendix B, Table 2). The total percentage of students who reported getting into an argument or fight while they were under the influence was higher in 1993 than in 2008, an encouraging reduction in percentage, but the two survey administrations were not directly comparable. Still, a large proportion of drinkers in 2008 appear to have experienced negative outcomes similar to students surveyed at the same institution in 1993.

Another negative outcome from the present study was students who had been taken advantage of sexually was also associated with being a drinker (Appendix B, Table 2). Whereas Drake (1993) used percentages only to indicate a negative outcome of "taken advantage of another sexually," the present research tested for and found no significance between "taken advantage of another sexually" (item 210) and being a drinker.

In research question II (demographics) the present study found significance in ethnicity and never used alcohol. There was a significance difference between American Indian/Alaska Native and Black (non-Hispanic), White (non-Hispanic) and Black (non-Hispanic), Black (non-Hispanic) and American Indian/Alaska Native, Black (non-Hispanic) and White (non-Hispanic), there was significance within binge drinking.

Meilman, Presley, and Lyerla (1994) also found a significant difference between White and Black students' amount of alcohol consumption.

There was not statistically significant evidence that drinker status depended on gender. However, there was statistical significance that men consumed more alcohol in a week and consumed 5 or more servings more often in the last two weeks than women.

Fossos, Neighbors, Kaysen, & Hove (2007) reported similar findings that male problematic drinkers consumed more alcohol then female problematic drinkers.

Using Tukey post-hoc contrasts, there was a significant difference in alcohol consumption between seniors and graduate/professional students, but not between other students by class year (Appendix B, Table 38). This outcome differed from the Core Institute (2006) national results that indicated freshmen students consumed the most alcohol compared to other students by class status.

# Inspiration for the Research

The researcher was inspired through past experiences with alcohol and college students. The researcher observed during his undergraduate experience living at the residence hall and fraternity house that many of his peers struggled with alcohol. In fact, he took some of his peers to seek professional assistance with their alcohol consumption.

Another inspirational moment was his childhood and being raised to not consume alcohol. The researcher's father warned him about the possible risks of consuming alcohol since his father went though the 12 steps of Alcoholics Anonymous in the late 1970's. Knowing about his father's past alcohol dependency the researcher has carefully monitored his own alcohol consumption, knowing he has a family history of alcoholism.

#### Recommendations for Practitioners

The information found from the current research could be of value to all Student Affairs practitioners at Eastern Illinois University, but especially to the Health Education Resource Center. The results of this study may suggest student affairs professionals reach out to the Native American population and especially to men at Eastern Illinois

University. Perhaps there could be programming targeting men asking them to examine their motivations to drink at Eastern Illinois University. These programs could consist of small groups that help change men's attitudes and beliefs about alcohol consumption (Capraro, 2000).

A specific recommendation to administrators at Eastern Illinois University is to offer a leadership minor to students. One of the courses for the minor could prepare students to be peer educators on their residence hall floor, Greek organization, athletic team, or club. Therefore, students will receive information on moderate drinking from a personal peer (teammate, floormate, or Greek brother/sister) and not a random student or administrator. Greater one-on-one interaction with peers could effectively reach male students. Future research needs to be conducted on working with Native Americans even though there were only five responses to the present survey. Among all students surveyed, Native Americans engaged in the highest levels of alcohol consumption.

Use of guidelines from the National Institute on Alcohol Abuse and Alcoholism (2005) to change individual college students' beliefs on alcohol consumption through "documenting daily" and "managing stress" effectively is also stongly recommended (.http://www.collegedrinkingprevention.gov/NIAAACollegeMaterials/TaskForce/CallTo Action\_02.aspx#CallToAction\_02\_a, Retrieved on May 10, 2009). University professionals can also create "45 minute motivational sessions" to reduce alcohol consumption

(.http://www.collegedrinkingprevention.gov/NIAAACollegeMaterials/TaskForce/CallTo Action 02.aspx#CallToAction 02 a, Retrieved on May 10, 2009).

# Limitations of the Study

The most significant limitation of the study is the under representation in different ethnic groups. Minorities consisted of 131 respondents out of 1146 participants that responded. While that may be comparable to the 11% of the total multicultural population, there were many ethnicities that had few responses such as Hispanic, Asian, and Native American. This study did not have enough minority respondents to draw concrete conclusions on different ethnic groups' alcohol consumption in the ethnic groups listed above.

Another limitation to the study is Eastern Illinois University was the only institution analyzed. Therefore, generalizing to other institutions shall be limited because Eastern Illinois University can not represent all institutions across the United States. There are many different types of institutions such as small liberal arts colleges, community colleges, and trade schools. In addition, analyzing the negative outcome of driving under the influence and location of consuming alcohol was rather common sense. If someone is driving under the influence, then they are going to be a drinker. Also, if they are a drinker, then there is going to be significance at all the locations of alcohol consumption when compared to non-drinkers.

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# APPENDIX A CORE ALCOHOL AND DRUG SURVEY (SELECTED QUESTIONS)

- 1. Classification:
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
  - e. Grad/professional
  - f. Not seeking a degree
  - g. Other
- 3. Ethnic Origin:
  - a. American Indian/Alaskan Native
  - b. Hispanic
  - c. Asian/Pacific Islander
  - d. White (non-Hispanic)
  - e. Black (non-Hispanic)
  - f. Other
- 5. Gender:
  - a. Male
  - b. Female
- 9. Cumulative Grade Point Average:
  - A', B', or C'
- 14. Think back over the last two weeks. How many times have you had five or more drinks at a sitting?
  - a. None
  - b. Once
  - c. Twice
  - d. 3 to 5 times
  - e. 6 to 9 times
  - f. 10 or more times
- 15. Average number of drinks you consume a week\_\_\_
- 17b. Within the last year about how often have you used alcohol (beer, wine, liquor)
  - a. Did not use
  - b. Once/year
  - c. 6 times/year
  - d. Once/month
  - e. Twice/month
  - f. Once/week
  - g. 3 times/week
  - h. 5 times/week
  - i. Everyday

- 18. During the past 30 days on how many days did you have alcohol (beer, wine, liquor)
  - a. . 0 days
  - b. 1-2 days
  - c. 3-5 days
  - d. 6-9 days
  - e. 10-19 days
  - f. 20-29 days
  - g. All 30 days
- 20. Where you used Alcohol (beer, wine, or liquor)
  - a. Never Used b. on campus events c. Residence hall d.

Fraternity/sorority

- e. Bar/restaurant f. Where you live
- g. In a car e. Private parties h. Other
- 21. Please indicate how often you have experienced the following due to your drinking or drug use during the last year (circle best response).
  - b. Performed poorly on a test or important project
    - a. Never, once, twice, 3-5 times, 6-9 times, 10 or more times
  - e. Go in to an argument or right
    - b. Never, once, twice, 3-5 times, 6-9 times, 10 or more times
  - g. Drive a car while under the influence
    - a. Never, once, twice, 3-5 times, 6-9 times, 10 or more times
  - h. Missed a class
    - a. Never, once, twice, 3-5 times, 6-9 times, 10 or more times
  - m. Been arrested for DWI/DUI
    - a. Never, once, twice, 3-5 times, 6-9 times, 10 or more times
  - n. Have been taken advantage of another sexually
    - a. Never, once, twice, 3-5 times, 6-9 times, 10 or more times
  - o. Have taken advantage of another sexually
    - a. Never, once, twice, 3-5 times, 6-9 times, 10 or more times
  - 25. In the first column, indicate whether any of the following have happened to you within the also year while you were in are around campus. If you answered yes to any of these items, indicate in the second column if you had consumed alcohol or other drugs shortly before these incidents.

|                                       | Happened to you | Consumed alcohol or drugs |
|---------------------------------------|-----------------|---------------------------|
|                                       |                 |                           |
| b. Threats of physical violence       | Y or N          | Y or N                    |
| c. Actual physical violence           | Y or N          | Y or N                    |
| e. Forced sexual touching or fondling | g Y or N        | Y or N                    |
| f. Unwanted sexual intercourse        | Y or N          | Y or N                    |

- 39. In which of the following way does other student's drinking interfere with you life on or around campus?
  - a. Interrupts your studying (yes or no)

## APPENDIX B DATE TABLES AND STATISTICAL TESTS

Table 1

Drinker status by grade point average

|      | Grade Point | Drinker vs. N<br>Statu |             | Total | χ. 2  | df  | Asymp.         |
|------|-------------|------------------------|-------------|-------|-------|-----|----------------|
| Item | Average     | Non-drinker<br>(n)     | Drinker (n) | Total | λ .   | ui. | Sig. (2-sided) |
| 9    | "F"         | . 1                    | 0           | 1     |       |     |                |
|      | "D"         | 3                      | 4           | 7     | 9.457 | 4   | 0.051          |
|      | "C"         | 27                     | 111         | 138   |       |     |                |
|      | "B"         | 110                    | 383         | 493   |       |     |                |
|      | "A"         | 135                    | 361         | 496   |       |     |                |
|      | Total       | 276                    | 859         | 1135  |       |     |                |

Table 2

Drinker status by negative outcome

|      |             | Poor Test     | t Score – 21b    |      |          |    |           |
|------|-------------|---------------|------------------|------|----------|----|-----------|
|      | Drinker     | Never         | Experienced      | Tota | $\chi^2$ | df | Asymp.    |
| [tem | versus      | (no)          | (yes)            | 1    |          |    | Sig.      |
|      | Non-drinker | n             | N                |      |          |    | (2-sided) |
|      | Status      |               |                  |      |          |    |           |
| 18b  | Non-drinker | 258           | 14               | 272  |          |    |           |
|      | Drinker     | 628           | 228              | 856  | 56.560   | 1  | 0.000     |
|      | Total       | 886           | 242              | 1128 |          |    |           |
|      |             | Missing       | g Class-21h      |      |          |    |           |
| 18b  | Non-drinker | 254           | 18               | 272  |          |    |           |
|      | Drinker     | 543           | 310              | 853  | 88.221   | 1  | 0.000     |
|      | Total       | 797           | 328              | 1125 |          |    | . '       |
|      |             | Others Interr | upt Studing-39a  |      |          |    |           |
| 18b  | Non-drinker | 147           | 122              | 269  |          |    |           |
|      | Drinker     | 499           | 335              | 834  | 2.254    | 1  | 0.133     |
|      | Total       | 646           | 457              | 1103 |          |    |           |
|      |             | Got into an   | argument/fight-  |      |          |    |           |
|      |             |               | 21e              |      |          |    |           |
| 18b  | Non-drinker | 238           | 31               | 269  |          |    |           |
|      | Drinker     | 455           | 400              | 855  | 107.603  | 1  | 0.000     |
|      | Total       | 693           | 431              | 1124 |          |    |           |
|      |             | Threats of Ph | nysical Violence |      |          |    |           |
|      |             |               | d to you 25b     |      |          |    |           |
| 18b  | Non-drinker | 253           | 19               | 272  |          |    |           |
|      | Drinker     | 747           | 107              | 854  | 6.830    | 1  | 0.012     |
|      | Total       | 1000          | 126              | 1126 |          |    |           |
|      |             | Actual Phy    | sical Violence   |      |          |    |           |
|      |             | •             | to Student 25c   |      |          |    |           |
| 18b  | Non-drinker | 264           | 7                | 271  |          |    |           |
|      | drinker     | 813           | 41               | 854  | 2.477    | 1  | 0.115     |
|      | total       | 1077          | 48               | 1125 |          |    |           |
|      |             | Have Been Ta  | aken Advantage   |      |          |    |           |
|      |             | of Sexually 2 |                  |      |          |    |           |
| 18b  | Non-drinker | 265           | 7                | 272  |          |    |           |
|      | Drinker     | 767           | 84               | 851  | 14.739   | 1  | 0.000     |
|      | Total       | 1032          | 91               | 1123 |          |    |           |
|      |             | Have Taken A  | Advantage of     |      |          |    |           |
|      |             | Someone Sex   | . •              |      |          |    |           |
| l 8b | Non-drinker | 270           | 2                | 272  |          |    |           |
|      |             | 840           | 17               | 857  | 1.045    | 1  | 0.162     |
|      | Drinker     | 040           | 1 /              | 837  | 1.945    | 1  | 0.163     |

Table 2 Continued

Drinker status by negative outcome

|      | Drinker     |              | ual Touching<br>ened 25e | Total | $\chi^2$ | df | Asymp.    |
|------|-------------|--------------|--------------------------|-------|----------|----|-----------|
| Item | versus      | Never        | Experienced              |       |          |    | Sig.      |
|      | Nondrinker  | (no)         | (yes)                    |       |          |    | (2-sided) |
|      | Status      | n            | N                        |       |          |    |           |
| 18b  | Non-drinker | 266          | 6                        | 272   |          |    |           |
|      | Drinker     | 806          | 45                       | 851   | 4.516    | 1  | 0.034     |
|      | Total       | 1072         | 51                       | 1123  |          |    |           |
|      |             | Unwanted Sea | xual Intercourse         |       |          |    |           |
|      |             | Happened 21  | f                        |       |          |    |           |
| 18b  | Non-drinker | 268          | 3                        | 271   |          |    |           |
|      | Drinker     | 827          | 29                       | 856   | 3.881    | 1  | 0.049     |
|      | Total       | 1095         | 32                       | 1127  |          |    |           |
|      |             |              |                          |       |          |    |           |

Table 3
Ethnicity and location of alcohol use

|      |               | Never Used A | Icohol 20b1 |       |          |    |           |
|------|---------------|--------------|-------------|-------|----------|----|-----------|
|      | Ethnicity     | No           | Yes         | Total | $\chi^2$ | Df | Asymp.    |
| Item |               | n            | N           |       |          |    | Sig.      |
|      |               |              |             |       |          |    | (2-sided) |
| 3    | American      | 3            | 2           | 5     |          |    |           |
| 3    | Indian/Alaska | 3            | 2           | . 3   | 22.46    | 5  | 0.000     |
|      | Native        |              |             |       | 23.46    | 5  | 0.000     |
|      |               | 2.1          | 2           | 22    | 7        |    |           |
|      | Hispanic      | 31           | 2           | 33    |          |    |           |
|      | Asian/Pacific | 24           | 9           | 35    |          |    |           |
|      | Islander      | 016          | 00          | 1006  |          |    |           |
|      | White (non-   | 916          | 90          | 1006  |          |    |           |
|      | Hispanic      |              |             |       |          |    |           |
|      | Black         | 35           | 9           | 44    |          |    |           |
|      | Other         | 15           | 1           | 16    |          |    |           |
|      | Total         | 1024         | 113         | 1137  |          |    |           |
|      |               | Used Alcohol |             |       |          |    |           |
|      |               | 201          |             |       |          |    |           |
| 3    | American      | 4            | 1           | .5    |          |    |           |
|      | Indian/Alaska |              |             |       | 3.642    | 5  | 0.602     |
|      | Native        |              |             |       |          |    |           |
|      | Hispanic      | 27           | 6           | 33    |          |    |           |
|      | Asian/Pacific | 31           | 2           | 33    |          |    |           |
|      | Islander      |              |             |       |          |    |           |
|      | White (non-   | 875          | 131         | 1006  |          |    |           |
|      | Hispanic)     |              |             |       |          |    |           |
|      | Black (non-   | 40           | 4           | 44    |          |    |           |
|      | Hispanic)     |              |             |       |          |    |           |
|      | Other         | 15           | 1           | 16    |          |    |           |
|      | Total         | 992          | 145         | 1137  |          |    |           |

Table 3 Continued

Ethnicity and location of alcohol use

|      | Ethnicity                | Used Alcoh<br>Hal | Total              | $\chi^2$ | df     | Asymp. |           |
|------|--------------------------|-------------------|--------------------|----------|--------|--------|-----------|
| Item |                          | No                | Yes                |          | ,,     |        | Sig.      |
|      |                          | n                 | N                  |          |        |        | (2-sided) |
| 3    | American                 | 4                 | 1                  | 5        |        |        |           |
|      | Indian/Alaska<br>Native  | •                 |                    |          | 10.058 | 5      | 0.074     |
|      | Hispanic                 | 24                | 9                  | 33       |        |        |           |
|      | Asian/Pacific Islander   | 27                | 6                  | 33       |        |        |           |
|      | White (non-<br>Hispanic) | 639               | 367                | 1006     |        |        |           |
|      | Black (non-<br>Hispanic) | 34                | 10                 | 44       |        |        |           |
|      | Other                    | 12                | 4                  | 16       |        |        |           |
|      | Total                    | 740               | 397                | 1137     |        |        |           |
|      | 1000                     |                   | l in Fraternity or | 1107     |        |        |           |
|      |                          |                   | rity 20b4          |          |        |        |           |
| 3    | American                 | 4                 | 1                  | 5        |        |        |           |
|      | Indian/Alaska<br>Native  |                   |                    |          | 1.281  | 5      | 0.937     |
|      | Hispanic                 | 25                | 8                  | 33       |        |        |           |
|      | Asian/Pacific Islander   | 28                | 5                  | 33       |        |        |           |
|      | White (non-<br>Hispanic) | 789               | 217                | 1006     |        |        |           |
|      | Black (non-<br>Hispanic) | 36                | 8                  | 44       |        |        |           |
|      | Other                    | 13                | 3                  | 16       |        |        |           |
|      | Total                    | 895               | 242                | 1137     |        |        |           |

Table 3 Continued

Ethnicity and location of alcohol use

|      | Ethnicity                           | Used Alcoh<br>Restaura | nt 20b5    | Total  | $\chi^2$ | df | Asymp.    |
|------|-------------------------------------|------------------------|------------|--------|----------|----|-----------|
| Item |                                     | No                     | Yes        |        |          |    | Sig.      |
|      |                                     | n n                    | N          |        |          |    | (2-sided) |
| 3    | American<br>Indian/Alaska<br>Native | 3                      | 2          | 5      | 37.674   | 5  | 0.000     |
|      | Hispanic                            | 6                      | 27         | 33.    |          |    |           |
|      | Asian/Pacific Islander              | 19                     | 14         | 33     |          |    |           |
|      | White (non-<br>Hispanic)            | 311                    | 695        | 1006   |          |    |           |
|      | Black (non-                         | 29                     | 15         | 44     |          |    |           |
|      | Hispanic)                           |                        |            |        |          |    |           |
|      | Other                               | 6                      | 10         | 16     |          |    |           |
|      | Total                               | 374                    | 763        | 1137   |          |    |           |
|      |                                     | Use of Alcohol         | where      |        |          |    |           |
|      |                                     | student lives 21       | <b>b</b> 6 |        |          |    |           |
| 3    | American                            | 2                      | 3          | 5      |          |    |           |
|      | Indian/Alaska<br>Native             |                        |            |        | 34.131   | 5  | 0.000     |
|      | Hispanic                            | 7                      | 26         | 33     |          |    |           |
|      | Asian/Pacific Islander              | 20                     | 13         | 33     |          |    |           |
|      | White (non-<br>Hispanic)            | 293                    | 713        | 1006   |          |    |           |
|      | Black (non-<br>Hispanic)            | 26                     | 18         | 44     |          |    |           |
|      | Other                               | 7                      | 9          | 16     |          |    |           |
|      | Total                               | 355                    | 782        | 1137   |          |    |           |
|      |                                     | <del>-</del>           |            | - 10 . |          |    |           |

Table 3 Continued

Ethnicity and location of alcohol use

|          |                           | Used Alco   | hol in a car 21b7 |       |          |    |                |
|----------|---------------------------|-------------|-------------------|-------|----------|----|----------------|
| Item     | Ethnicity                 | No<br>n     | Yes<br>N          | Total | $\chi^2$ | df | Asymp.<br>Sig. |
| 3        |                           | 11          |                   |       |          |    | (2-sided)      |
| 3        | American<br>Indian/Alaska | 4           | 1                 | 5     | 2.464    | 5  | 0.782          |
|          | Native                    |             |                   |       | 2        |    | 0.702          |
|          | Hispanic                  | 30          | 3                 | 33    |          |    |                |
|          | Asian/Pacific             | 31          | 2                 | .33   |          |    |                |
|          | Islander                  |             |                   |       |          |    |                |
|          | White (non-               | 872         | 134               | 1006  |          |    |                |
|          | Hispanic)                 |             |                   |       |          |    |                |
|          | Black (non-               | 37          | 7                 | 44    |          |    |                |
|          | Hispanic)                 |             |                   |       |          |    |                |
|          | Other                     | 14          | 2                 | 16    |          |    |                |
|          | Total                     | 988         | 149               | 1137  |          |    |                |
|          |                           | Use Alcoho. | at Private Party  |       |          |    |                |
| . 3      | American                  | . 3         | 2                 | 5     |          |    |                |
| <b>.</b> | Indian/Alaska<br>Native   | 3           | ~                 |       | 25.414   | 5  | 0.000          |
|          | Hispanic                  | 6           | 27                | 33    |          |    |                |
|          | Asian/Pacific Islander    | 16          | 17                | 33    |          |    |                |
|          | White (non-<br>Hispanic)  | 268         | 738               | 1006  |          |    |                |
|          | Black (non-<br>Hispanic)  | 23          | 21                | 44    |          |    |                |
|          | Other                     | 3           | 13                | 16    |          |    |                |
|          | Total                     | 319         | 818               | 1137  |          |    |                |

Table 3 Continued

Ethnicity and location of alcohol use

|      | Ethnicity                |     | Use at Other ion 21b9 | Total | $\chi^2$ | Df | Asymp.    |
|------|--------------------------|-----|-----------------------|-------|----------|----|-----------|
| Item | •                        | No  | Yes                   |       |          |    | Sig.      |
|      |                          | n   | n                     |       |          |    | (2-sided) |
| 3    | American                 | 4   | 1                     | 5     |          |    |           |
|      | Indian/Alaska<br>Native  |     |                       |       | 6.146    | 5  | 0.262     |
|      | Hispanic                 | 25  | 8                     | 33    |          |    |           |
|      | Asian/Pacific Islander   | 31  | 2                     | 33    |          |    |           |
|      | White (non-<br>Hispanic) | 857 | 149                   | 1006  |          |    |           |
|      | Black (non-<br>Hispanic) | 39  | 5                     | 44    |          |    |           |
|      | Other                    | 12  | 4                     | 16    |          |    |           |
|      | Total                    | 968 | 169                   | 1137  |          |    |           |

Table 4

Gender by consumed 5+ servings in the last 2 weeks

|      |        | Consu | ımed 5+ | serving | s in the | last 2 w | ks14         |       |          |    |                       |
|------|--------|-------|---------|---------|----------|----------|--------------|-------|----------|----|-----------------------|
| Item | Gender |       |         | Twice   |          |          | 10+<br>times | Total | $\chi^2$ | Df | Asymp.                |
|      |        |       |         |         | times    | times    | times        |       |          |    | sig.<br>(2-<br>sided) |
| 5    | Male   | 120   | 39      | 50      | 66       | 22       | 9            | 306   | 28.799   | 10 | $0.001^{'}$           |
|      | Female | 410   | 147     | 124     | 108      | 34       | 12           | 835   |          |    |                       |
|      | Total  | 530   | 186     | 174     | 174      | 56       | 21           | 1141  |          |    |                       |

Table 5

Gender by alcohol consumption within the last year

|      |                |           | cohol within the year-17b |            |       |    |                       |
|------|----------------|-----------|---------------------------|------------|-------|----|-----------------------|
| Item | Gender         | Never     | Once/year                 | Total      | χ²    | Df | Asymp. sig. (2-sided) |
| 5    | Male<br>Female | 38<br>104 | 266<br>732                | 304<br>836 | 0.285 | 2  | 0.867                 |
|      | Other<br>Total | 0<br>142  | 2<br>1000                 | 2<br>1142  |       |    |                       |

Table 6

Gender by alcohol consumption within the last 30 days

|      | Gender |               | ohol within the days-18 | Tota | χ²    | df | Asymp.         |
|------|--------|---------------|-------------------------|------|-------|----|----------------|
| Item |        | 0 days<br>(n) | 1-2 days                | 1    |       |    | Sig. (2-sided) |
| 5    | Male   | 69            | 235                     | 304  |       |    |                |
|      | Female | 206           | 624                     | 830  | 1.264 | 2  | 0.531          |
|      | Other  | 1             | 1                       | 2    |       |    |                |
|      | Total  | 276           | 860                     | 1136 |       |    |                |

Table 7

Classification by consumed 5+ servings in the last 2 weeks

|      |                       | Consu | imed 5+ | serving | s in the     | last 2 w     | ks14         |       |          |    |                 |
|------|-----------------------|-------|---------|---------|--------------|--------------|--------------|-------|----------|----|-----------------|
| Item | Class                 | None  | Once    | Twice   | 3-5<br>times | 6-9<br>times | 10+<br>times | Total | $\chi^2$ | Df | Asymp. sig. (2- |
|      |                       |       |         |         |              | _            | _            |       |          |    | sided)          |
| 5    | Freshmen              | 52    | 19      | 14      | 25           | 3            | 3            | 116   | 36.658   | 20 | 0.013           |
|      | Sophomore             | 78    | 21      | 40      | 27           | 10           | 6            | 182   |          |    |                 |
|      | Junior                | 129   | 45      | 42      | 38           | 15           | 5            | 274   |          |    |                 |
|      | Senior                | 174   | 67      | 58      | 69           | 25           | 6            | 399   |          |    |                 |
|      | Grad/<br>professional | 98    | 34      | 21      | 15           | 3            | 1            | 172   |          |    |                 |
|      | Total                 | 531   | 186     | 175     | 174          | 56           | 21           | 1143  |          |    |                 |

Table 8

Classification by consuming alcohol within the last year

|      |   |                            | consumption in year-17b        |                                 |        |    |                       |
|------|---|----------------------------|--------------------------------|---------------------------------|--------|----|-----------------------|
| Item | Class   | Never                      | At least once                  | Total                           | χ²     | Df | Asymp. sig. (2-sided) |
| 5    | Freshmen Sophomore Junior Senior Grad/ professional Total | 26<br>29<br>26<br>35<br>26 | 89<br>153<br>248<br>363<br>147 | 115<br>182<br>274<br>398<br>173 | 21.077 | 4  | 0.000                 |

Table 9

Classification by consuming alcohol within the last 30 days

|      |                       |        | consumption in 30 days-18b |       |        |    |                       |
|------|-----------------------|--------|----------------------------|-------|--------|----|-----------------------|
| Item | Class                 | 0 days | At least 1-2<br>Days       | Total | χ²     | Df | Asymp. sig. (2-sided) |
| 5    | Freshmen              | 42     | 73                         | 115   | 16.756 | 4  | 0.002                 |
|      | Sophomore             | 46     | 135                        | 181   |        |    |                       |
| . •  | Junior                | 58     | 214                        | 272   |        |    |                       |
|      | Senior                | 80     | 317                        | 397   |        |    |                       |
|      | Grad/<br>professional | 50     | 121                        | 17,1  |        |    |                       |
|      | Total                 | 276    | 860                        | 1136  |        |    |                       |

Table 10

Never consumed 5+ drinks in the last 2 weeks

|      |                        | Consu      | med 5+   | servings | s in the     | last 2 w     | ks14         |             |             |    |                       |
|------|------------------------|------------|----------|----------|--------------|--------------|--------------|-------------|-------------|----|-----------------------|
| Item | Never consumed alcohol | None       | Once     | Twice    | 3-5<br>times | 6-9<br>times | 10+<br>times | Total       | $\chi^2$    | Df | Asymp. sig. (2-sided) |
| 20b1 | No                     | 420        | 185      | 172      | 173          | 55           | 20           | 1025        | 126.52<br>2 | 5  | 0.000                 |
|      | Yes<br>Total           | 109<br>529 | 0<br>185 | 1<br>173 | 1<br>174     | 1<br>56      | 1<br>21      | 113<br>1138 |             |    |                       |

Table 11

Never consumed alcohol within the last year

|      |                        | Consun | ned alcohol within the last year-17b |       |         |    |                       |
|------|------------------------|--------|--------------------------------------|-------|---------|----|-----------------------|
| Item | Never consumed alcohol | Never  | Once/year                            | Total | χ²      | Df | Asymp. sig. (2-sided) |
| 20b1 | No                     | 39     | 986                                  | 1025  | 700.917 | 1  | .000                  |
|      | Yes                    | 102    | 11                                   | 113   |         |    |                       |
|      | Total                  | 141    | 997                                  | 1138  |         |    |                       |

Table 12

Never consumed alcohol within the last 30 days

|      |                        |                   | lcohol within the days-18b |                     |         |    |                       |
|------|------------------------|-------------------|----------------------------|---------------------|---------|----|-----------------------|
| Item | Never consumed alcohol | 0 days<br>(Never) | Once/year (1-2 days)       | Total               | χ²      | Df | Asymp. sig. (2-sided) |
| 20b1 | No<br>Yes<br>Total     | 169<br>106<br>275 | 853<br>6<br>859            | 1022<br>112<br>1134 | 335.222 | 1  | .000                  |

Table 13

Consumed 5+ drinks in the last 2 weeks of alcohol on campus

|      |                            | Consu            | imed 5+          | serving          | s in the         | last 2 w       | ks14          |                    |        |    |                       |
|------|----------------------------|------------------|------------------|------------------|------------------|----------------|---------------|--------------------|--------|----|-----------------------|
| Item | Consumed alcohol on campus | None             |                  | Twice            |                  | 6-9<br>times   | 10+<br>times  | Total              | χ²     | Df | Asymp. sig. (2-sided) |
| 20b2 | No<br>Yes<br>Total         | 494<br>35<br>529 | 159<br>26<br>185 | 150<br>23<br>173 | 137<br>37<br>174 | 38<br>18<br>56 | 15<br>6<br>21 | 993<br>145<br>1138 | 53.246 | 5  | 0.000                 |

Table 14

Consumed alcohol within the last year on campus

|      |                            |          | d alcohol within the ast year-17b | 2          |        |    |                       |  |
|------|----------------------------|----------|-----------------------------------|------------|--------|----|-----------------------|--|
| Item | Consumed alcohol on campus | Never    | Once/year                         | Total      | χ²     | Df | Asymp. sig. (2-sided) |  |
| 20b2 | No<br>Yes                  | 136<br>5 | 857<br>140                        | 993<br>145 | 12.240 | 1  | 0.000                 |  |
|      | Total                      | 141      | 997                               | 1138       |        |    |                       |  |

Table 15

Consumed alcohol within the last 30 days on campus

|      |                            |                   | cohol within the days-18b |                    |        |    |                       |
|------|----------------------------|-------------------|---------------------------|--------------------|--------|----|-----------------------|
| Item | Consumed alcohol on campus | 0 days<br>(Never) | Once/year (1-2 days)      | Total              | χ²     | Df | Asymp. sig. (2-sided) |
| 20b2 | No<br>Yes<br>Total         | 260<br>15<br>275  | 729<br>130<br>859         | 989<br>145<br>1134 | 17.501 | 1  | 0.000                 |

Table 16

Consumed 5+ drinks in the last 2 weeks of alcohol in the residence hall

|      |                                    | Consu             | med 5+           | serving         | s in the        | last 2 w       | ks14          |                    |          |    |                       |
|------|------------------------------------|-------------------|------------------|-----------------|-----------------|----------------|---------------|--------------------|----------|----|-----------------------|
| Item | Consumed alcohol in residence hall | None              |                  | Twice           |                 | 6-9<br>times   | 10+<br>times  | Total              | $\chi^2$ | Df | Asymp. sig. (2-sided) |
| 20b3 | No<br>Yes<br>Total                 | 420<br>109<br>529 | 107<br>78<br>185 | 96<br>77<br>173 | 85<br>89<br>174 | 25<br>31<br>56 | 8<br>13<br>21 | 741<br>397<br>1138 | 96.200   | 5  | 0.000                 |

Table 17

Consumed alcohol within the last year in the residence hall

|      |                                    | Consu           | med alcohol within the last year-17b |                    |          |    |                       |
|------|------------------------------------|-----------------|--------------------------------------|--------------------|----------|----|-----------------------|
| Item | Consumed alcohol in residence hall | Never           | Once/year                            | Total              | $\chi^2$ | Df | Asymp. sig. (2-sided) |
| 20b3 | No<br>Yes<br>Total                 | 137<br>4<br>141 | 603<br>394<br>997                    | 740<br>398<br>1138 | 73.087   | 1  | 0.000                 |

Table 18

Consumed alcohol within the last 30 days in the residence hall

|      |                                    |                  | Icohol within the days-18b |                    |                |    |                       |
|------|------------------------------------|------------------|----------------------------|--------------------|----------------|----|-----------------------|
| Item | Consumed alcohol in residence hall | 0 days           | 1-2 days                   | Total              | χ <sup>2</sup> | Df | Asymp. sig. (2-sided) |
| 20b3 | No<br>Yes<br>Total                 | 245<br>30<br>275 | 492<br>367<br>859          | 737<br>397<br>1134 | 92.671         | 1  | 0.000                 |

Table 19

Consumed 5+ drinks of alcohol in the last 2 weeks at a fraternity or sorority

| Item | Consumed alcohol at a fraternity or sorority | None | Once | Twice | 3-5<br>times | 6-9<br>times | 10+<br>times | Total | χ²          | Df | Asymp. sig. (2-sided) |
|------|--|------|------|-------|--------------|--------------|--------------|-------|-------------|----|-----------------------|
| 20b4 | No   | 488  | 137  | 123   | 108          | 29           | 12           | 897   | 125<br>.530 | 5  | 0.000                 |
|      | Yes  | 41   | 48   | 50    | 66           | 27           | 9            | 241   |             |    |                       |
|      | Total  | 529  | 185  | 173   | 174          | 56           | 21           | 1138  |             |    |                       |

Table 20

Consumed alcohol within the last year at a fraternity or sorority

|      |  | Consun          | ned alcohol within the last year-17b |                    |        |    |                       |
|------|--|-----------------|--------------------------------------|--------------------|--------|----|-----------------------|
| Item | Consumed alcohol at a fraternity or sorority | Never           | Once/year                            | Total              | χ²     | Df | Asymp. sig. (2-sided) |
| 20b4 | No<br>Yes<br>Total                           | 136<br>5<br>141 | 760<br>237<br>997                    | 896<br>242<br>1138 | 30.180 | 1  | 0.000                 |

Table 21

Consumed alcohol within the last 30 days at a fraternity or sorority

|      |  |                  | cohol within the days-18b |                    |        |    |                       |
|------|--|------------------|---------------------------|--------------------|--------|----|-----------------------|
| Item | Consumed alcohol at a fraternity or sorority | 0 days           | 1-2 days                  | Total              | χ²     | Df | Asymp. sig. (2-sided) |
| 20b4 | No<br>Yes<br>Total                           | 262<br>13<br>275 | 631<br>228<br>859         | 893<br>241<br>1134 | 59.237 | 1  | 0.000                 |

Table 22

Consumed 5+ drinks of alcohol in the last 2 weeks at a bar or restaurant

|      |                       |      |      | serving |              |              |              |       | 2        |    |          |
|------|-----------------------|------|------|---------|--------------|--------------|--------------|-------|----------|----|----------|
| Item | Consumed alcohol at a | None | Once | Twice   | 3-5<br>times | 6-9<br>times | 10+<br>times | Total | $\chi^2$ | Df | Asym     |
|      | bar or                |      |      |         | times        | unies        | umes         |       |          |    | sig. (2- |
|      | restaurant            |      |      |         |              |              |              |       |          |    | sided)   |
| 20b5 | No                    | 270  | 43   | 34      | 20           | 5            | 4            | 376   | 152      | 5  | 0.000    |
|      |                       |      |      |         |              |              |              |       | .592     |    |          |
|      | Yes                   | 259  | 142  | 139     | 154          | 51           | 17           | 762   |          |    |          |
|      | Total                 | 529  | 185  | 173     | 174          | 56           | 21           | 1138  |          |    |          |

Table 23

Consumed alcohol within the last year at a bar or restaurant

|      |   |                  | d alcohol within the<br>ast year-17b | e                  |         |    |                       |
|------|---|------------------|--------------------------------------|--------------------|---------|----|-----------------------|
| Item | Consumed alcohol at a bar or restaurant | Never            | Once/year                            | Total              | χ²      | Df | Asymp. sig. (2-sided) |
| 20b5 | No<br>Yes<br>Total                      | 123<br>18<br>141 | 253<br>744<br>997                    | 376<br>762<br>1138 | 213.651 | 1  | 0.000                 |

Table 24

Consumed alcohol within the last 30 days at a bar or restaurant

|      |                              |        | alcohol within the 0 days-18b |       |          |    |             |
|------|------------------------------|--------|-------------------------------|-------|----------|----|-------------|
| Item | Consumed alcohol at a bar or | 0 days | 1-2 days                      | Total | $\chi^2$ | Df | Asymp. sig. |
|      | restaurant                   |        |                               |       |          |    | (2-sided)   |
| 20b5 | No                           | 189    | 185                           | 374   | 209.877  | 1  | 0.000       |
|      | Yes                          | 86     | 674                           | 760   |          |    |             |
|      | Total                        | 275    | 859                           | 1134  |          |    |             |

Table 25

Consumed 5+ drinks of alcohol in the last 2 weeks at where you live

|      |                                    | Consi             | ımed 5+          | - serving        | s in the         | last 2 w      | ks14          |                    |          |    |                       |
|------|------------------------------------|-------------------|------------------|------------------|------------------|---------------|---------------|--------------------|----------|----|-----------------------|
| Item | Consumed alcohol at where you live | None              | Once             | Twice            | 3-5<br>times     | 6-9<br>times  | 10+<br>times  | Total              | $\chi^2$ | Df | Asymp. sig. (2-sided) |
| 20b6 | No<br>Yes<br>Total                 | 239<br>290<br>529 | 42<br>143<br>185 | 43<br>130<br>173 | 26<br>148<br>174 | 4<br>52<br>56 | 3<br>18<br>21 | 357<br>781<br>1138 | 96.647   | 5  | 0.000                 |

Table 26

Consumed alcohol within the last year at where you live

|      |                                    | Consun           | ned alcohol within the last year-17b |                    |          |    |                       |
|------|------------------------------------|------------------|--------------------------------------|--------------------|----------|----|-----------------------|
| Item | Consumed alcohol at where you live | Never            | Once/year                            | Total              | $\chi^2$ | Df | Asymp. sig. (2-sided) |
| 20b6 | No<br>Yes<br>Total                 | 117<br>24<br>141 | 239<br>758<br>997                    | 356<br>782<br>1138 | 200.080  | 1  | 0.000                 |

Table 27

Consumed alcohol within the last 30 days at where you live

| •    |                               |        | alcohol within the 30 days-18b |       |         |    |                       |
|------|-------------------------------|--------|--------------------------------|-------|---------|----|-----------------------|
| Item | Consumed alcohol at where you | 0 days | 1-2 days                       | Total | χ²      | Df | Asymp. sig. (2-sided) |
|      | live                          |        |                                |       |         |    |                       |
| 20b5 | No                            | 173    | 182                            | 355   | 168.615 | 1  | 0.000                 |
|      | Yes                           | 102    | 677                            | 779   |         |    |                       |
|      | Total                         | 275    | 859                            | 1134  |         |    |                       |

Table 28

Consumed 5+ drinks of alcohol in the last 2 weeks in a car

| Item | Consumed alcohol in a car | Consu<br>None    |                  | serving<br>Twice |                  | last 2 w<br>6-9<br>times | ks14<br>10+<br>times | Total              | χ <sup>2</sup> | Df | Asymp. sig. (2- |
|------|---------------------------|------------------|------------------|------------------|------------------|--------------------------|----------------------|--------------------|----------------|----|-----------------|
| 20b7 | No<br>Yes<br>Total        | 493<br>36<br>529 | 160<br>25<br>185 | 146<br>27<br>173 | 136<br>38<br>174 | 36<br>20<br>56           | 18<br>3<br>21        | 989<br>149<br>1138 | 56.277         | 5  | sided)<br>0.000 |

Table 29

Consumed alcohol within the last year in a car

|      |                           | Consumed alcored last year |                   |                    |          |    |                       |
|------|---------------------------|----------------------------|-------------------|--------------------|----------|----|-----------------------|
| Item | Consumed alcohol in a car | Never                      | Once/year         | Total              | $\chi^2$ | Df | Asymp. sig. (2-sided) |
| 20b7 | No<br>Yes<br>Total        | 132<br>9<br>141            | 857<br>140<br>997 | 989<br>149<br>1138 | 6.368    | 1. | 0.012                 |

Table 30

Consumed alcohol within the last 30 days in a car

|      |                           |                  | lcohol within the days-18b |                    |        |    |                       |
|------|---------------------------|------------------|----------------------------|--------------------|--------|----|-----------------------|
| Item | Consumed alcohol in a car | 0 days           | 1-2 days                   | Total              | χ²     | Df | Asymp. sig. (2-sided) |
| 20b7 | No<br>Yes<br>Total        | 259<br>16<br>275 | 727<br>132<br>859          | 986<br>148<br>1134 | 16.737 | 1  | 0.000                 |

Table 31

Consumed 5+ drinks of alcohol in the last 2 weeks at a private party

|      |                                     | Consu      | ımed 5+    | - serving  | s in the   | last 2 w     | ks14         |             |             |    |                |
|------|-------------------------------------|------------|------------|------------|------------|--------------|--------------|-------------|-------------|----|----------------|
| Item | Consumed alcohol at a private party | None       |            | Twice      |            | 6-9<br>times | 10+<br>times | Total       | χ²          | Df | Asymsig. (2-   |
| 20b8 | No                                  | 247        | 24         | 29         | 12         | 6            | 2            | 320         | 173<br>.073 | 5  | sided<br>0.000 |
|      | Yes<br>Total                        | 282<br>529 | 161<br>185 | 144<br>173 | 162<br>174 | 50<br>56     | 19<br>21     | 818<br>1138 | .075        |    |                |

Table 32

Consumed alcohol within the last year at a private party

|      |                                     |                  | ohol within the ear-17b |                    |          |    |                       |
|------|-------------------------------------|------------------|-------------------------|--------------------|----------|----|-----------------------|
| Item | Consumed alcohol at a private party | Never            | Once/year               | Total              | $\chi^2$ | Df | Asymp. sig. (2-sided) |
| 20b8 | No<br>Yes<br>Total                  | 115<br>26<br>141 | 204<br>793<br>997       | 319<br>819<br>1138 | 228.586  | 1  | 0.000                 |

Table 33

Consumed alcohol within the last 30 days at a private party

|      |                                     |                   | cohol within the days-18b |                    |         |    |                       |
|------|-------------------------------------|-------------------|---------------------------|--------------------|---------|----|-----------------------|
| Item | Consumed alcohol at a private party | 0 days            | 1-2 days                  | Total              | χ²      | Df | Asymp. sig. (2-sided) |
| 20b8 | No<br>Yes<br>Total                  | 168<br>107<br>275 | 151<br>708<br>859         | 319<br>815<br>1134 | 195.081 | 1  | 0.000                 |

Table 34

Consumed 5+ drinks of alcohol in the last 2 weeks at other location

|      |                                    | Consu            | med 5+           | serving          | s in the         | last 2 w       | ks14          |                    |          |    |                       |
|------|------------------------------------|------------------|------------------|------------------|------------------|----------------|---------------|--------------------|----------|----|-----------------------|
| Item | Consumed alcohol at other location | None             | Once             | Twice            | 3-5<br>times     | 6-9<br>times   | 10+<br>times  | Total              | $\chi^2$ | Df | Asymp. sig. (2-sided) |
| 20b9 | No<br>Yes<br>Total                 | 481<br>48<br>529 | 145<br>40<br>185 | 148<br>25<br>173 | 141<br>33<br>174 | 39<br>17<br>56 | 14<br>7<br>21 | 968<br>170<br>1138 | 39.144   | 5  | 0.000                 |

Table 35

Consumed alcohol within the last year at other location

|      |                                    | Consur          | ned alcohol within the last year-17b |                    |       |    |                       |
|------|------------------------------------|-----------------|--------------------------------------|--------------------|-------|----|-----------------------|
| Item | Consumed alcohol at other location | Never           | Once/year                            | Total              | χ²    | Df | Asymp. sig. (2-sided) |
| 20b9 | No<br>Yes<br>Total                 | 132<br>9<br>141 | 836<br>161<br>997                    | 968<br>170<br>1138 | 9.271 | 1  | 0.002                 |

Table 36

Consumed alcohol within the last 30 days at other location

|      |                                    |                  | cohol within the days-18b |                    |       |    |                       |
|------|------------------------------------|------------------|---------------------------|--------------------|-------|----|-----------------------|
| Item | Consumed alcohol at other location | 0 days           | 1-2 days                  | Total              | χ²    | Df | Asymp. sig. (2-sided) |
| 20b9 | No<br>Yes<br>Total                 | 250<br>25<br>275 | 714<br>145<br>859         | 964<br>170<br>1134 | 9.917 | 1  | 0.002                 |

Table 37

One way ANOVA between class and average number of drinks consumed per week

| Classes        | Sum of    | Df   | Mean squares | F     | *Sig. |
|----------------|-----------|------|--------------|-------|-------|
|                | squares   |      |              |       |       |
| Between Groups | 761.138   | 4    | 190.284      | 2.618 | 0.034 |
| Within Groups  | 82348.401 | 1133 | 72.682       |       |       |
| Total          | 83073.546 | 1135 |              |       |       |

<sup>\*</sup>p <.05

Table 38

Tukey Post-Hoc Contrasts in classification and average numbers of alcoholic drinks in a week

| Class                  | Mean | Difference | Con   | fidence | Sig. |
|------------------------|------|------------|-------|---------|------|
|                        |      |            | In    | terval  | C    |
|                        |      |            | Lower | Upper   |      |
|                        |      |            | bound | bound   |      |
| Freshmen vs.           | 5.52 | 528        | -3.32 | 2.27    | NS   |
| Sophomore              | 6.05 |            |       |         |      |
| Freshmen vs.           | 5.52 | .354       | -2.25 | 2.96    | NS   |
| Junior                 | 5.17 |            |       |         |      |
| Freshmen vs.           | 5.52 | 490        | -2.97 | 1.99    | NS   |
| Senior                 | 6.01 |            |       |         |      |
| Freshmen vs.           | 5.52 | 1.859      | 96    | 4.68    | NS   |
| Grad/professional      | 3.66 |            |       |         |      |
| Sophomore vs. Freshmen | 6.05 | .528       | -2.27 | 3.32    | NS   |
|                        | 5.52 |            |       |         |      |
| Sophomore vs.          | 6.05 | .882       | -1.35 | 3.12    | NS   |
| Junior                 | 5.17 |            |       |         |      |
| Sophomore vs.          | 6.05 | .037       | -2.05 | 2.13    | NS   |
| Senior                 | 6.01 |            |       |         |      |
| Sophomore vs.          | 6.05 | 2.387      | 10    | 4.87    | NS   |
| Grad/professional      | 3.66 |            |       |         |      |
| Junior vs.             | 5.17 | 354        | -2.96 | 2.25    | NS   |
| Freshmen               | 5.52 |            |       |         |      |
| Junior vs.             | 5.17 | 882        | -3.12 | 1.35    | NS   |
| Sophomore              | 6.05 |            |       |         |      |
| Junior vs.             | 5.17 | 845        | -2.67 | .98     | NS   |
| Senior                 | 6.01 |            |       |         |      |
| Junior vs.             | 5.17 | 1.505      | 76    | 3.77    | NS   |
| Grad/professional      |      |            |       |         |      |
| Senior vs.             | 6.01 | .490       | -1.99 | 2.97    | NS   |
| Freshmen               | 5.52 |            |       |         |      |
| Senior vs.             | 6.01 | 037        | -2.13 | 2.05    | NS   |
| Sophomore              | 6.05 |            |       |         |      |
| Senior vs.             | 6.01 | .845       | 98    | 2.67    | NS   |
| Junior                 | 5.17 |            |       |         |      |
| Senior vs.             | 6.01 | 2.350*     | .23   | 4.47    | S    |
| Grad/professional      | 3.66 |            |       |         |      |
|                        |      |            |       |         |      |

Table 38 (Continued)

Tukey Post-Hoc Contrasts in classification and consumption of alcohol in a week

| Class                          | Mean | Difference |       | nfidence<br>iterval | Sig. |
|--------------------------------|------|------------|-------|---------------------|------|
|                                |      |            | Lower | Upper               |      |
| ·<br>                          |      |            | bound | bound               |      |
| Grad/professional vs. Freshmen | 3.66 | -1.859     | -4.68 | .96                 | NS   |
|                                | 5.52 |            |       |                     |      |
| Grad/professional vs.          | 3.66 | -2.387     | -4.87 | .10                 | NS   |
| Sophomore                      | 6.05 |            |       |                     |      |
| Grad/professional vs. Junior   | 3.66 | -1.505     | -3.77 | .76                 | NS   |
|                                | 5.17 |            |       |                     |      |
| Grad/professional vs. Senior   | 3.66 | -2.350*    | -4.47 | 23                  | S    |
|                                | 6.01 |            |       |                     |      |

<sup>\*</sup>The mean difference is significant at the .05 level

Table 39

One way ANOVA between ethnicity and average number of drinks consumed per week

| Classes        | Sum of    | Df   | Mean squares | F     | *Sig. |
|----------------|-----------|------|--------------|-------|-------|
|                | squares   |      |              |       |       |
| Between Groups | 1466.832  | 5    | 293.366      | 4.062 | .001  |
| Within Groups  | 81606.714 | 1130 | 72.218       |       |       |
| Total          | 83073.546 | 1135 |              |       |       |
| + 0 =          |           |      |              |       |       |

<sup>\*</sup>p < .05

| Ethnicity                    | Mean  | Difference | Cor    | nfidence | Sig. |
|------------------------------|-------|------------|--------|----------|------|
|                              |       |            | In     | iterval  | · ·  |
|                              |       |            | Lower  | Upper    |      |
|                              |       |            | bound  | bound    |      |
| Amer. Ind./Alaska Native vs. | 13.00 | 7.212      | -4.43  | 18.85    | NS   |
| Hispanic                     | 5.79  |            |        |          |      |
| Amer. Ind./Alaska Native vs. | 13.00 | 10.706     | 91     | 22.33    | NS   |
| Asian/ Pacific Islander      | 2.29  |            |        |          |      |
| Amer. Ind./Alaska Native vs. | 13.00 | 7.327      | -3.55  | 18.20    | NS   |
| White (non-Hispanic)         | 5.67  |            |        |          |      |
| Amer. Ind./Alaska Native vs. | 13.00 | 11.682*    | .23    | 23.13    | S    |
| Black (Non-Hispanic)         | 1.32  |            |        |          |      |
| Amer. Ind./Alaska Native vs. | 13.00 | 9.125      | -3.30  | 21.55    | NS   |
| Other                        | 3.88  |            |        |          |      |
|                              |       |            |        |          |      |
| Hispanic vs.                 | 5.79  | -7.212     | -18.85 | 4.43     | NS   |
| Amer. Ind./Alaska Native     | 13.00 |            |        |          |      |
| Hispanic vs.                 | 5.79  | 3.494      | -2.43  | 9.42     | NS   |
| Asian/ Pacific Islander      | 2.29  |            |        |          |      |
| Hispanic vs.                 | 5.79  | .115       | -4.18  | 4.41     | NS   |
| White (non-Hispanic)         | 5.67  |            |        |          |      |
| Hispanic vs.                 | 5.79  | 4.470      | -1.12  | 10.06    | NS   |
| Black (Non-Hispanic)         | 1.32  |            |        |          |      |
| Hispanic vs.                 | 5.79  | 1.913      | -5.48  | 9.30     | NS   |
| Other                        | 3.88  |            |        |          |      |
|                              |       |            |        |          |      |
| Asian/ Pacific Islander vs.  | 2.29  | -10.706    | -22.33 | .91      | NS   |
| Amer. Ind./Alaska Native     | 13.00 |            |        |          |      |
| Asian/ Pacific Islander vs.  | 2.29  | -3.494     | -9.42  | 2.43     | NS   |
| Hispanic                     | 5.79  |            |        |          |      |
| Asian/ Pacific Islander vs.  | 2.29  | -3.379     | -7.61  | .85      | NS   |
| White (non-Hispanic)         | 5.67  |            |        |          |      |
| Asian/ Pacific Islander vs.  | 2.29  | .976       | -4.56  | 6.52     | NS   |
| Black (Non-Hispanic)         | 1.32  |            |        |          |      |
| Asian/ Pacific Islander vs.  | 2.29  | -1.581     | -8.94  | 5.77     | NS   |
| Other                        | 3.88  |            |        |          |      |

Table 40 (Continued)

Tukey Post-Hoc Contrasts in ethnicity and average numbers of alcoholic drinks in a week

| Class                         | Mean          | Difference | Con    | fidence | Sig. |
|-------------------------------|---------------|------------|--------|---------|------|
|                               |               |            | In     | terval  |      |
|                               |               |            | Lower  | Upper   |      |
|                               |               | _          | bound  | bound   |      |
| White (non-Hispanic) vs.      | 5.67          | -7.327     | -18.20 | 3.55    | NS   |
| Amer. Ind./Alaska Native      | 13.00         |            |        |         |      |
| White (non-Hispanic) vs.      | 5.67          | 115        | -4.41  | 4.18    | NS   |
| Hispanic                      | 5.79          |            |        |         |      |
| White (non-Hispanic) vs.      | 5.67          | 3.379      | 85     | 7.61    | NS   |
| Asian/ Pacific Islander       | 2.29          |            |        |         |      |
| White (non-Hispanic) vs.      | 5.67          | 4.355*     | .62    | 8.09    | S    |
| Black (Non-Hispanic)          | 1.32          |            |        |         |      |
| White (non-Hispanic) vs.      | 5.67          | 1.798      | -4.31  | 7.91    | NS   |
| Other                         | 3.88          |            |        |         |      |
| Black (Non-Hispanic)vs.       | 1.32          | -11.682*   | -23.13 | 23      | S    |
| Amer. Ind./Alaska Native      | 13.00         |            |        |         |      |
| Black (Non-Hispanic)vs.       | 1.32          | -4.470     | -10.06 | 1.12    | NS   |
| Hispanic                      | 5.79          |            |        |         |      |
| Black (Non-Hispanic)vs.       | 1.32          | 976        | -6.52  | 4.56    | NS   |
| Asian/ Pacific Islander       | 2.29          |            |        |         |      |
| Black (Non-Hispanic)vs.       | 1.32          | -4.355*    | -8.09  | 62      | S    |
| White (non-Hispanic)          | 5.67          |            |        |         |      |
| Black (Non-Hispanic)vs.       | 1.32          | -2.557     | -9.64  | 4.53    | NS   |
| Other                         | 3.88          |            |        |         |      |
| Other vs.                     | 3.88          | -9.125     | -21.55 | 3.30    | NS   |
| Amer. Ind./Alaska Native      | 13.00         |            |        |         |      |
| Other vs.                     | 3.88          | -1.913     | -9.30  | 5.48    | NS   |
| Hispanic                      | 5.79          |            |        |         |      |
| Other vs.                     | 3.88          | 1.581      | -5.77  | 8.94    | NS   |
| Asian/ Pacific Islander       | 2.29          |            |        |         |      |
| Other vs.                     | 3.88          | -1.798     | -7.91  | 4.31    | NS   |
| White (non-Hispanic)          | 5.67          | •          |        |         |      |
| Other vs.                     | 3.88          | 2.557      | -4.53  | 9.64    | NS   |
| Black (Non-Hispanic)          | 1.32          |            |        |         |      |
| *The mean difference is signi | ficant at the | .05 level  |        |         |      |

| Item               |      | G             | ender-5         |        |      |
|--------------------|------|---------------|-----------------|--------|------|
| 15                 |      | Males (n=305) | Females (n=831) | T      | Sig. |
| Average drinks     | Mean | 8.37          | 4.32            | *7.242 | .000 |
| Consumed in a week | S.D. | 11.723        | 6.715           |        |      |

<sup>\*</sup>p <.0001

Table 42

Independent sample *t*-test comparing never used alcohol by the average number of drinks consumed in a week

| Item               |      | Never use      | ed alcohol-20b1 |        |      |
|--------------------|------|----------------|-----------------|--------|------|
| 15                 |      | Yes<br>(n=112) | No<br>(n=1023)  | T      | Sig. |
| Average drinks     | Mean | 1.09           | 5.90            | -5.726 | .000 |
| Consumed in a week | S.D. | 8.049          | 8.481           |        |      |

<sup>\*</sup>p <.0001

Table 43

Independent sample *t*-test comparing consuming alcohol on campus by the average number of drinks consumed in a week

| Item               |      | Consuming alcohol on campus -20b2 |               |        |      |
|--------------------|------|-----------------------------------|---------------|--------|------|
| 15                 |      | Yes<br>(n=144)                    | No<br>(n=991) | T      | Sig. |
| Average drinks     | Mean | 11.13                             | 4.60          | -8.853 | .000 |
| consumed in a week | S.D. | 13.705                            | 7.163         |        |      |

<sup>\*</sup>p <.0001

Table 44

Independent sample *t*-test comparing consuming alcohol in a residence hall by the average number of drinks consumed in a week

| Item               | Consuming alcohol in a residence hall -20b3 |             |               |        |      |  |
|--------------------|---|-------------|---------------|--------|------|--|
| 15                 |   | Yes (n=396) | No<br>(n=739) | T      | Sig. |  |
| Average drinks     | Mean  | 8.29        | 3.89          | -8.524 | .000 |  |
| consumed in a week | S.D.  | 10.028      | 7.205         |        |      |  |

<sup>\*</sup>p <.0001

Table 45

Independent sample *t*-test comparing consuming alcohol in a fraternity/sorority house by the average number of drinks consumed in a week

| Item        |      | Consumi     | ng alcohol in a  |        |      |
|-------------|------|-------------|------------------|--------|------|
|             |      | fraternity/ | sorority house - | -      |      |
|             |      | •           | 20b4             |        |      |
| 15          |      | Yes         | No               | T      | Sig. |
|             |      | (n=241)     | (n=894)          |        | 2    |
| Average     | Mean | 10.03       | 4.18             | -9.799 | .000 |
| drinks      |      |             |                  |        |      |
| consumed in | S.D. | 11.365      | 7.142            |        |      |
| a week      |      |             |                  |        |      |

<sup>\*</sup>p <.0001

| Item               |      |             | ng alcohol at a taurant 20b5 |         |      |
|--------------------|------|-------------|------------------------------|---------|------|
| 15                 |      | Yes (n=762) | No<br>(n=373)                | T       | Sig. |
| Average drinks     | Mean | 7.18        | 1.85                         | -10.301 | .000 |
| consumed in a week | S.D. | 9.586       | 4.012                        |         |      |

<sup>\*</sup>p <.0001

Table 47

Independent sample t-test comparing consuming alcohol at where you live by the average number of drinks consumed in a week

| Item               |      | Consuming alcohol at where you live 20b6 |               |        |      |
|--------------------|------|--|---------------|--------|------|
| 15                 |      | Yes<br>(n=780)                           | No<br>(n=355) | T      | Sig. |
| Average<br>drinks  | Mean | 6.78                                     | 2.45          | -8.131 | .000 |
| consumed in a week | S.D. | 9.468                                    | 4.933         |        |      |

<sup>\*</sup>p <.0001

Table 48

Independent sample t-test comparing consuming alcohol in a car by the average number of drinks consumed in a week

| Item               |      | Consuming      | Consuming alcohol in a car |        |      |  |
|--------------------|------|----------------|----------------------------|--------|------|--|
|                    |      |                | 20b7                       |        |      |  |
| 15                 |      | Yes<br>(n=149) | No<br>(n=989)              | T      | Sig. |  |
| Average drinks     | Mean | 11.42          | 4.52                       | -9.537 | .000 |  |
| consumed in a week | S.D. | 13.635         | 7.078                      |        |      |  |

<sup>\*</sup>p <.0001

Table 49

Independent sample t-test comparing consuming alcohol at a private party by the average number of drinks consumed in a week

| Item               | Consuming alcohol at a private party 20b8 |                |               |        |      |
|--------------------|---|----------------|---------------|--------|------|
| 15                 |   | Yes<br>(n=816) | No<br>(n=319) | T      | Sig. |
| Average drinks     | Mean                                      | 6.84           | 1.82          | -9.208 | .000 |
| consumed in a week | S.D.                                      | 9.382          | 4.161         |        |      |

<sup>\*</sup>p <.0001

## APPENDIX C

## CORE ALCOHOL AND DRUG SURVEY

|  |   |   | Form 194   |
|--|---|---|--|
| Core Alcoho  | land Dr u   | g Sur vey   | For ad ditional use:  A (0) (1) (0) (5) (3) (0) (0) (3)(5)   |
| FIPSE Core Analysis Grantee Gro<br>Please use a naumber 2 Pancil   | OUP Cor<br>Student N<br>Souther n   | re Institute<br>Realth Prog. nams<br>Illimois Univ. ersity<br>dale, Jr. 6-2901  | 8 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  |
|  |   |   |  |
| 1. Classification: Freshman  | 9 0 Hi 0 0 Ai 0 0 W 0 0 Bi  | hnic origin: merican Indian/ Alaskan Nativ e O ispanic O sian/P acific Islander O thite (non-Hispanic) O iac k (non-Hispanic) O ther O  | 4. Marital status; Single O Married O Separ ated O Divorced O Widowed O 7. Are you working? Yes, full-time O |
| 5. Gender:   | ① ① ① as:   | y our current residence<br>a student:   | Ye s, part-time  |
| Female 🔾   |   | ff-campus   | ( Living arrang ements:  |
| 9. Appr oximate cum ulative grade O O O O O O O O O A+ A A- B+ B B-  10. Some students ha ve indicated the around campus feduces their enjoutheref ore, they would rather not he students ha ve indicated that alcoholished a verificated that alcoholished and drugs a vallable and of the verification of the ve | at alcohol or drug use at par yment, often leads to be a ve alcohol and drugs of and drugs of and drug use at par situations and heref used. With high the lace Have a vallable. No 12 Campus tituation or a. Does y objectmpus!  b. If so, are the y enfonce. Does y our campus in prevention program d. Do you believe your the prevention of dreads and alcohol use prob | D D- F  ties they aftered in and gative situations and validable and used. Other ties increases their are, they would rather have losest to your dwn vie w? It have a validable and drugs: na ve alcohol and drug policies? ced?  reampus is concert ned about ug and alcohol use? olved in efforts to pte vent drug polems on your campus? | ····· O O ····· O ···· O O ····· O ····· O O ···· O  |
| 14. Think back over the last two weeks. How man y times have you had five or more drinks* at a sitting?  None Once Twice Ostimes 6 to 9 times 10 or more times  *A clrink is a bottle of beer in a glass of liquor, or a mix ed drink.   | 15. A vera ge # of drinks* y ou consume a week:  (If less than ① ① ① ① ① ① ① ② ② ③ ③ ③ ③ ③ ② ② ② ② ② ②  | b. Aicohol (beer , wine , liqi c. Marijuana (pot, hash, ha d. Cocaine (cr ack, roc k, fr e. Amphetamines (diet pili f. Sedativ es (do wners , lu- g. Hallucinogens (LSD , PC h. Opiates (heroin, smac k i. Inhalants (glue , solv ent   | k, horse) 00000000<br>ts, gas) 000000000<br>r , MDMA) 000000000000000000000000000000000                      |

| 17. Within the last year about how often have you used (mark one for each line) a. Tobacco (smoke, chew, snuff) b. Alcohol (beer, wine, liquor) c. Marijuana (pot, hash, hash oil) d. Cocaine (crack, rock, freebase) e. Amphetamines (diet pills, speed) f. Sedatives (downers, ludes) g. Hallucinogens (LSD, PCP) h. Oplates (heroin, smack, horse) i. Inhalants (glue, solvents, gas) j. Designer drugs (ecstasy, MDMA) k. Steroids l. Other illegal drugs | 18. During the past 30 days on how many days did you have: (mark one for each line) a. Tobacco (smoke, chew, snuff) b. Alcohol (beer, wine, liquor) c. Marijuana (pot, hash, hash oil) d. Cocaine (crack, rock, freebase) e. Amphetamines (diet pills, speed) f. Sedatives (downers, ludes) g. Hallucinogens (LSD, PCP) h. Opiates (heroin, smack, horse) i. Inhalants (glue, solvents, gas) j. Designer drugs (ecstasy, MDMA) k. Steroids l. Other illegal drugs   |
|---|---|
| 19. How often do you think the average student on your campus uses (mark one for each line) a. Tobacco (smoke, chew, snuft)   | 21. Please indicate how often you have experienced the following due to your drinking or drug use during the last year (mark one for each line) a. Had a hangover b. Performed poorly on a test or important project c. Been in trouble with police, residence hall, or other college authorities d. Damaged property, pulled lire alarm, etc. e. Got into an argument or fight f. Got nauseated or vomited   |
| 20. Where have you used (mark all that apply)  a. Tobacco (smoke, chew, snuft)  b. Alcohol (beer, wine, liquor)  c. Marijuana (pot, hash, hash oil)  d. Cocaine (crack, rock, freebase)  e. Amphetamines (diet pills, speed)  f. Sedatives (downers, ludes)  g. Hallucinogens (LSD, PCP)  h. Opiates (heroin, smack, horse)  j. Designer drugs (ecstasy, MDMA)  k, Steroids  l. Other illegal drugs   | g. Driven a car while under the influence h, Missed a class i. Been criticized by someone I know j. Thought I might have a drinking or other drug problem k. Had a memory loss l. Done something I later regretted m. Been arrested for DWI/DUI n. Have been taken advantage of sexually b. Have taken advantage of another sexually p. Tried unsuccessfully to stop using. COOOO p. Seriously tried to commit suicide. |
| 22. Have any of your family had alcohol or other drug problems: (mark all that apply)  Mother Brothers/sisters Spouse Father Mother's parents Children Stepmother Father's parents None Stepfather Aunts/uncles   | 23. If you volunteer any of your time on or off campus to help others, please indicate the approximate number of hours per month and principal activity:  One to volunteer, or 10-15 hours less than 1 hour 16 or more hours 1-4 hours Principal volunteer activity is: 5-9 hours   |

| 24. Within the last year to what extent have you participated in any of the following activities? (mark one for each line)  a. Intercollegiate athletics   | 27. Do you believe that alcohol has the following effects? (mark one for each line)  a. Breaks the ice b. Enhances social activity c. Makes it easier to deal with stress d. Facilitates a connection with peers e. Gives people something to talk about f. Facilitates male bonding g. Facilitates female bonding h. Allows people to have more fun i. Gives people something to do j. Makes food taste better k. Makes women sexier l. Makes men sexier m. Makes me sexier n. Facilitates sexual opportunities |
|--|--|
| 25. In the first column, indicate whether any of the following have happened to you within the last year while you were in and around campus.  If you answered yes to any of these items, indicate in the second column if you had consumed alcohol or other drugs shortly before these incidents.  Yes no Yes no a. Ethnic or racial harassment | 28. On this campus, drinking is a central part in the social life of the following groups: (mark one for each line)  yes no  a. Male students b. Fernale students c. Faculty/staff d. Alumni e. Athletes f. Fraternities   |
| c, Actual physical violence O O O O O O O O O O O O O O O O O  | g. Sororities  |
| 26. How do you think your close friends feel (or would feel) about you (mark one for each line)  a. Trying marijuana once or twice b. Smoking marijuana occasionally c. Smoking marijuana regularly d. Trying cocaine once or twice e. Taking cocaine regularly f. Trying LSD once or twice g. Taking LSD regularly                              | other drug use?  c. Do you feet safe on this campus?  30. Compared to other campuses with which you are familiar, this campus' use of alcohol is (mark one)  Greater than other campuses.  Less than other campuses.  About the same as other campuses.  31. Housing preferences: (mark one for each line)   |
| h. Trying amphetamines once or twice  i. Taking amphetamines regularly j. Taking one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day k. Taking four or five drinks nearly every day l. Having five or more drinks in one sitting m. Taking steroids for body building or improved athletic performance              | a. If you live in university housing, do you live in a designated alcohol-free/ drug-free residence hall?  |

| 32. To what extent do students on this campus care about problems associated with (mark one for each line)  a. Alcohol and other drug use b. Campus vandalism. c. Sexual assault. d. Assaults that are non-sexual. e. Harassment because of gender f. Harassment because of sexual orientation g. Harassment because of race or ethnicity h. Harassment because of religion   |  | 37. During the past 30 days, to what extent have you engaged in any of the following behaviors? (mark one for each line) a. Refused an offer of alcohol or other drugs. b. Bragged about your alcohol or other drug use c. Heard someone else brag about his/her alcohol or other drug use d. Carried a weapon such as a gun, knife, etc. (do not count hunting situations or weapons used as part of your job) e. Experienced peer pressure |
|---|--|--|
| 33.To what extent has your alcohol use changed within the last 12 months?   | 34.To what extent has your<br>illegal drug use changed<br>within the last 12 months? | to drink or use drugs  |
| Increased   | Increased  | you weren't drinking   |
| 35. How much do you think peoprisk harming themselves   | I have not used drugs C  | was drunk  |
| (physically or in other ways) if they (mark one for each line)  a. Try marijuana once or twice b. Smoke marijuana regularly c. Smoke marijuana regularly d. Try cocaine once or twice e. Take cocaine regularly f. Try LSD once or twice g. Take LSD regularly h. Try amphetamines once or twice i. Take amphetamines regularly j. Take one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day k. Take four or five drinks nearly every day l. Have five or more drinks in one sitting m. Take steroids for body building or improved athletic performance. |  | 38. To what extent do you agree with the following statements?  (mark one for each line) a. I feel valued as a person on this campus. b. I feel that faculty and staff care about me as a student. c. I have a responsibility to contribute to the well-being of other students. d. My campus encourages me to help others in need. e. I abide by the university policy and regulations that concern alcohol and other drug use.             |
| n. Consume alcohol prior to being sexually active   |  | 39. In which of the following ways does other students: drinking interfere with your life on or around campus? (mark one for each line)  yes no  |
| with multiple partners  |  | a. Interrupts your studying  |
| a. Did you have sexual intercourse within the last year?  |  | (cleanliness, neatness, organization, etc.)  d. Adversely affects your involvement on an athletic team or in other organized groups.   |
| b. Did you drink alcohol the last time you had sexual intercourse?  |  | e. Prevents you from enjoying events (concerts, sports, social activities, etc.)   |