The Leader Factor: Patterns of Alcohol Use, Negative Consequences, and Alcohol-Related Beliefs for Leaders and Non-leaders of Student Organizations

by

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The purpose of this study was to explore the relationship between student leadership and alcohol use. Previous literature had examined alcohol use of leaders and non-leaders in high-use organizations – Greeks and athletes. This study extends that literature by focusing on leaders and non-leaders in low-use organizations, and by examining students with multiple leadership roles.

The research used existing data from the Core Alcohol and Drug Survey. A random sample of 2,000 respondents was obtained from the Core Institute at Southern Illinois University – Carbondale. Respondents were leaders and non-leader members of minority and ethnic organizations and religious and interfaith groups. From this total sample, 624 students were active in minority organizations only, 865 were involved in religious groups only, and 511 were active in both. Dependent variables were drawn from four questions on the Core Survey concerning average number of drinks per week, consumption of five or more drinks at one sitting, negative consequences of alcohol use, and alcohol-related beliefs.

No statistically significant differences were found in the alcohol use of leader and non-leaders who were active only in minority groups. Significant differences were found however, between leaders and non-leaders who were active only in religious groups. For these groups, leaders consumed alcohol, engaged in high-risk drinking, experienced negative consequences, and ascribed to alcohol-related myths at a lower rate than those not in leadership positions. Student in dual leadership positions across the whole sample reported significantly higher alcohol use than student involved in one leadership position. Students with leadership roles in
both minority and religious organizations drank approximately three times as much (9.75 per
week) as those who are leaders in only one type of organization (2.75 per week).

The results of this study, understood in the context of the existing literature on alcohol
and leadership in high-use organizations, suggest that a Leader Factor may exist: Leaders of
student organizations tend to drink at least as much as non-leaders, and those with multiple
leadership roles have the highest rate of involvement with alcohol. The single exception to this
rule is leaders who are active in religious groups only.
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Chapter 1

Introduction

The national rise in alcohol abuse on college campuses is of concern to those in higher education (Hanson & Engs, 1995). In the United States, college students as a whole consume an average of 430 million gallons of alcohol per year (Werch, Meers, & Farrell, 1993). Heavy alcohol abuse and the negative consequences resulting from alcohol abuse have been called the most serious public health problem in colleges and universities today (Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998).

While alcohol abuse is a general problem for college students nationally, there are some factors that are known correlates with higher or lower than average alcohol use by students. Researchers have studied student organizations and activities, demographic factors, and religious beliefs with regard to their impact on alcohol abuse by students.

One segment of the college community typically associated with alcohol use is the Greek system of fraternities and sororities. Nationally, two-thirds of fraternity and sorority members are high-risk drinkers. This number rises to 80% for those members who live in Greek chapter houses. Despite widespread training for Greek leaders on risk management and liability issues, recent research has shown that fraternity and sorority leaders drink at least as much as other members. Based on a study of 25,411 college students, Cashin, Presley, and Meilman reported, “the leaders of fraternities and sororities consumed alcohol, engaged in heavy drinking, and experienced negative consequences at levels as high and in some cases higher than that of other Greek members” (1998, p.63). Leaders are setting the norms for heavy drinking rather than fighting the problem (Cashin et al., 1998).
The drinking patterns of athletes have also been studied on college campuses. Researchers found that rates of high-risk drinking went up as the level of involvement in athletics went up, suggesting a positive correlation between alcohol use and level of involvement (Wechsler, Davenport, Dowdall, Grossman, & Zanakos, 1997). A similar study found that team-leaders engage in heavier use of alcohol and suffer greater negative consequences from alcohol use than those athletes not in leadership positions (Leichliter, Meilman, Presley, & Cashin, 1998).

Demographic factors also play an important role in alcohol use. Men tend to drink more than women, and the rate of alcohol consumption also differs by race and ethnicity. For example, a national study of college students found that Native American students drink an average of 5.3 drinks per week; Whites, 5.1 per week; Hispanics, 3.4 per week; Asians, 1.9 per week; and Blacks, 1.9 drinks per week. These numbers reflect the averages for males and females together. When the alcohol consumption rates of males and females are viewed separately, males on average tend to consume about twice as much as females (Presley, Meilman, & Cashin, 1996a).

Religious beliefs and religious affiliation also appear to have an influence on alcohol use. A recent study of 26,000 college students nationally found that non-drinkers are more likely than frequent drinkers to value attendance at religious services (Goree & Szalay, 1996).

The role of leadership has been explored in groups where alcohol consumption is higher than in the general student population – Greeks and athletes. However, no studies have yet been done to explore the role of leadership in student groups where alcohol consumption is lower than the average. The factor of multiple leadership roles has also not been previously explored. The present study addresses this gap in the existing literature.
Purpose of the Study

The purpose of this study was to explore the relationship between student leadership and alcohol use. Previous literature had examined alcohol use of leaders and non-leaders in high-use organizations – Greeks and athletes. This study extends that literature by focusing on leaders and non-leaders in low-use organizations, and by examining students with multiple leadership roles.

Hypotheses

The present study was guided by the following null hypotheses:

1. There will be no statistically significant difference in the mean number of drinks per week for leaders of minority organizations as compared to non-leader members.
2. There will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for leaders of minority organizations as compared to non-leader members.
3. There will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by leaders of minority organizations as compared to non-leader members.
4. There will be no statistically significant difference in the mean number of alcohol-related myths to which leaders of minority organizations ascribe as compared to non-leader members.
5. There will be no statistically significant difference in the mean number of drinks per week for leaders of religious groups as compared to the non-leader members.
6. There will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for leaders of religious groups as compared to non-leader members.
7. There will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by leaders of religious groups as compared to non-leader members.

8. There will be no statistically significant difference in the mean number of alcohol-related myths to which leaders of religious groups ascribe as compared to non-leader members.

9. There will be no statistically significant difference in the mean number of drinks per week for students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

10. There will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

11. There will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

12. There will be no statistically significant difference in the mean number of alcohol-related myths to which students in dual leadership roles ascribe as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

Significance of the Study

This is the first study to examine student leadership and alcohol use globally. It advanced the previous research that focused on leadership in high-use groups only. The Leader Factor
identified in this study should provide fertile ground for future researchers to investigate, by extending this study to other types of students groups and by further investigation of multiple leadership roles. Future researchers should also investigate the culture of leadership in regard to alcohol.

This study is also significant for professional practice. Several constituencies might benefit from the findings. For example, the Leader Factor has serious implications for leader recruitment and leadership development programs for all organizations. Administrators, student-affairs professionals, and advisors can use the results of this study to create or modify meaningful leadership development programs for student organizations. The results of this study can also assist leaders of minority organizations and religious groups to gain a better understanding of alcohol issues within their low-use organizations. Finally, university administrators can use this information to assess the status of alcohol problems on campus and to develop policies related to alcohol.

Limitations of the Study

As with all research, the present study had some limitations. The data analyzed here came from the Core Alcohol and Drug Survey, a self-report instrument. Respondents may have been less than candid in their responses to some items. Students may under-report, over-report, or experience faulty recall. This is a particular concern since the study examined a sensitive issue (alcohol use) about which there are strong public expectations and negative legal consequences. If respondents were less than candid, the findings may have been skewed.

A second limitation pertains to the question on the Core Alcohol and Drug Survey that deals with the negative consequences. The stem for this question reads as follows: “Please indicate how often you have experienced the following due to your drinking or drug use during
the last year…. Since most college students use alcohol far more frequently than other drugs, previous researchers have used responses to this question as a proxy for consequences of alcohol use alone. However, given the wording of the question, it is impossible to know for certain what small portion of the responses refer to drugs other than alcohol (Cashin et al., 1998).

A third limitation relates to the portion of this sample that is actively involved in minority and ethnic organizations. An unexpectedly large percentage of students in this sample were White (21%). There is no obvious explanation for this level of involvement of majority students in these organizations.

A fourth limitation is that this study did not investigate other types of organizations that students might be involved in (or have multiple leadership roles within). Further, the nature of question #24 on involvement does not allow the researcher to know how many leadership roles one student has – only how many types of organizations a student leads. A student labeled as a dual leader here has at least two leadership roles. A student labeled as having one leadership role might have multiple roles in organizations of the same type.

Despite these limitations, this study was worthwhile. The findings concerning alcohol use and student leadership are intriguing and raise very important issues about the culture of leadership and its relationship to alcohol use. The results from this study also provide insights into the drinking behaviors of leaders and non-leaders in minority and religious student groups. This study extends the literature about student leadership and alcohol use to include student organizations where rates of drinking are below the average.

Organization of the Study

This study is organized around five chapters. Chapter Two contains a review of the relevant literature concerning alcohol use on college campuses. Chapter Three describes the
methods employed in the study, including the procedures for collecting and analyzing the data.

Chapter Four describes the results of the study. The final chapter discusses those results and their implications for future practice and research.
Chapter 2

Literature Review

Introduction

There are few issues that are more pressing for university administrators than the heavy use of alcohol by students on college campuses. College presidents have rated college student alcohol abuse as the problem that gives them the greatest concern (Boyer, 1990). The extent of this problem has been well documented in three large national studies: the Monitoring the Future Study, the College Alcohol Study, and the Core Alcohol and Drug Survey.

Monitoring the Future Study

The Monitoring the Future Study, created in 1975, is the oldest national study of alcohol use. The database for this study is located at the Institute for Social Research at the University of Michigan. This study tracks the substance abuse practices of high school students and college undergraduates. Its main focus is the prevalence of alcohol and other drug use. It also addresses students’ perceptions of harm from substance abuse. This study includes questions on education, life satisfaction, values, and citizenship. The instrument used for this database is distributed in multiple forms ranging in length up to 20 pages. The total number of full-time college students tracked annually ranges between 1,040 and 1,490 (Meilman, Cashin, McKillip, & Presley, 1998).

In a study conducted by Johnston, O’Malley, and Bachman (1991) investigating high-risk drinking of college students using the Monitoring the Future Study, the researchers found that 41% of college students were high-risk drinkers. In a subsequent study the same researchers found that college students are more likely to drink alcohol and drink greater amounts of alcohol than their non-college peers (Johnston, O’Malley, & Bachman, 1996). Both studies show that approximately two out of five college students can be classified as high-risk drinkers. Similar
rates of high-risk drinking were found in the other two major studies of college student alcohol use.

College Alcohol Study

The College Alcohol Study is funded by the Robert Wood Johnson Foundation and is administered by Henry Wechsler and his colleagues at the Harvard University School of Public Health. The survey instrument is a 20-page questionnaire that examines alcohol use, consequences of use, college alcohol policies, and high-risk drinking by college students. (Wechsler uses the phrase “binge drinking.” Other researchers refer to this as “high-risk” or “heavy” drinking. In the present study “high-risk” has been use throughout.) The survey also contains questions related to impaired driving, social activities, sexual behavior, and second-hand effects of high-risk drinking. This instrument was administered to a random sample of students at 140 institutions in 1993 and again in 1997 and 1999. The total sample of student respondents in 1993 was 15,103. In 1997, 14,521 students participated in the study. In 1999, there were 14,000 respondents (Wechsler et al., 1998; Wechsler, Lee, Kuo, & Lee, 2000).

Findings from the College Alcohol Study were similar to the Monitoring the Future Study. In 1993, 44% of college students were classified as high-risk drinkers (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). (There is disagreement among leading researchers nationally about the definitional standard for high-risk drinking. Wechsler uses “five drinks at one sitting for men and four for women.” The Core Survey uses a simpler standard: “five drinks at one sitting” regardless of gender. The present study follows the Core definition. However, reports of the College Alcohol Study necessarily use Wechsler’s definition.) In the 1997 sample, 42% were high-risk drinkers (Wechsler et al., 1998). In 1999, there were only a few notable changes from previous iterations of the study. Again about 2 out of 5 students were
found to be high-risk drinkers. High-risk drinking decreased somewhat among students living in residence halls on campus, while it increased among students living off-campus. Despite the stability of other data between 1993 and 1999, the researchers noted an important increase in high-risk drinking styles during this period. There was a 24% increase in college students who drink on 10 or more occasions per month, an 18% increase in students who drink for the purpose of getting drunk, and a 27% increase in those who are drunk three or more times per month (Wechsler et al., 2000).

Core Alcohol and Drug Survey

The third national study of college student drinking is the Core Alcohol and Drug Survey. This instrument was created in 1989 by a committee of grantee institutions funded through the Fund for Improvement in Postsecondary Education (FIPSE). It is administered and managed by Cheryl Presley and her colleagues at the Core Institute at Southern Illinois University - Carbondale. The Core Survey has had two forms. The original version was a one-page (two-sided) instrument with 23 questions. In 1994 it was modified and is now a two-page (two-sided) instrument with 39 questions, commonly referred to as the Long Form. This survey examines the prevalence of alcohol and other drug use, consequences of use, age of first use, family history, campus climate, violence, extracurricular and social activities, beliefs about alcohol and other drug use, perceptions of others’ use, and sexual behavior.

The Core study differs from the College Alcohol Study in that the Core Institute does not centrally control administration of the survey on individual campuses. Rather, the Institute suggests appropriate procedures, but it is up to each institution to determine the most appropriate sample, method of distribution, etc. Although most institutions use some form of representative sampling, there is no guarantee that the samples are randomly drawn. The importance of this
dataset comes from its sheer size. The Core Survey has been administered to over 700,000 students at more than 1000 institutions, so samples drawn randomly from the national dataset are in effect randomly drawn from college students nationally, even where the original institutional sample was not literally random.

Rates of high-risk drinking as measured by the Core Survey were similar to findings of the Monitoring the Future Study and the College Alcohol Study. On the Core Survey, 39.3% of college students were found to be high-risk drinkers (Presley et al., 1996a). Repeat studies have shown similar results of 38% to 44% of college students engaging in high-risk drinking.

Because the present study uses data from the Core national dataset, it is important to review the literature surrounding the Core Survey in somewhat greater detail. In 1986, Congress passed the Anti-Drug Abuse Act. Within that act was the mandate that funds be set-aside for higher education. The Department of Education’s Fund for Improvement of Postsecondary Education (FIPSE) was charged with administering those funds. For the next two years FIPSE began awarding substance abuse prevention grants to colleges and universities. In 1988 the FIPSE staff made a request for individuals to serve on a survey instrument selection committee. This committee was charged with finding a single survey that could be used to compare data across campuses. The committee came together with all of their individual surveys and attempted to choose one instrument. However, there was no one instrument that met all of their needs. Consequently, FIPSE funded the development of a new survey instrument to meet all of the specifications and demands of both the Department of Education and the committee itself (Presley, Meilman, Cashin, & Lyerla, 1996b).

In 1989 the original form of the Core Survey was created. It was named the Core Survey because it included only the “core” questions that all FIPSE grantee institutions would want to
ask of their students. It was not originally intended to cover all alcohol and other drug issues. The instrument was specifically designed for use with a higher education population. The original one-page form included demographics, personal information, frequency of usage, perceptions of others’ use, location of use, age of first use, patterns of use, family history, and consequences of use.

In 1994 the Core Survey was expanded to the current Long Form. The Long Form of the Core Survey contains all the previous questions, plus questions on participation in extracurricular activities, beliefs about alcohol, perceptions of friends’ thoughts, racial harassment and violence, perceptions of harm, and other questions.

The responses to the Core Survey are housed at the Core Institute at Southern Illinois University - Carbondale. The design of this survey and the housing of the data in a national database allow data from individual campus administrations to be aggregated, and direct comparisons to be made between an institution and the national totals.

The remainder of this section summarizes the general findings from the largest and most recent studies using Core data. Findings related to race and ethnicity, religion, and leadership are included in later sections.

Presley et al. (1996b) investigated alcohol use and consequences for college students who completed the Core Survey between 1991 and 1993, using a 41,667-member subset of the national Core database. Of this group, 85.2% reported that they had consumed alcohol at least once in the past year. They found that 39.3% of students reported having engaged in high-risk drinking at least once in the previous two weeks. About 16% of students responded that they had engaged in high-risk drinking three or more times in two weeks. Males consumed an average of 6.7 drinks per week, and females drank an average of 3.0 drinks per week. Students reported
many different types of negative consequences from alcohol or other drug use. These included missing class (28.6%), memory loss (26.1%), hangovers (61.4%), arguments and fights (30.4%), nausea and vomiting (47.8%), and being hurt or injured (13%).

In a follow-up to that study, Presley et al. (1996a) investigated alcohol use and consequences for students who completed the Core Survey between 1992 and 1994, using a 45,362-member subset of the national Core database. This study found results similar to the previous one. Eighty-three percent of students reported having consumed alcohol at least once in the past year. Students who engaged in high-risk drinking in the last two weeks were 38.3% of the total. The percentage of students who engaged in high-risk drinking on three or more occasions in the last two weeks remained the same as in the previous study. Males consumed an average of 6.8 drinks per week and the females consumed an average of 2.8 drinks per week in this sample. Negative consequences reported in this study were also similar to the previous analysis.

In 1997, Meilman, Presley, and Cashin investigated the average weekly alcohol consumption of a later cohort, using data collected from 44,433 students who completed the Core Survey between 1994 and 1996. Again, results were similar to previous studies in terms of average drinks per week, high-risk drinking, and negative consequences of drinking. In addition, this study provided data on the surprisingly large number of college students who drink little or no alcohol on a weekly basis. The researchers found that 51.0% of the respondents from four-year institutions reported consuming zero or one alcoholic drink per week.

Continuing the research emphasis on students who drink responsibly, a 1999 study investigated misperceptions of norms for the frequency of alcohol and other drug use on college campuses. The data for this study were drawn from the national Core dataset from institutions
with a sample size of at least 100 cases between 1994 and 1996. The resulting sample was 48,168 students. Most students misperceived the actual rate of alcohol, tobacco, and other drug use by their peers, reporting exaggerated levels of substance abuse as typical at their institutions. Data from the Core Survey show that the levels of alcohol use are high, but not as high as most college students believe. These misperceptions may be causing or reinforcing students’ actual high use of alcohol or other drugs (Perkins, Meilman, Leichliter, Cashin, & Presley, 1999).

In a 1999 study, Meilman, Leichliter, and Presley compared members of Greek organizations and athletes to investigate which group drinks more. They used a 51,483-member subset of the Core national database from students who completed the Core Survey between 1994 and 1996 at 125 institutions. They found that fraternity and sorority members were more involved in drinking than athletes. Additionally, they found that the combination of Greek membership and athletic involvement was associated with the highest level of alcohol consumption. These students consume on average three-to-four times more than students who are not involved in either athletics or the Greek system.

Race and Ethnicity

The present study investigated the role of student leadership and alcohol in minority organizations. Previous studies have found that race and ethnicity are important predictors of college student alcohol use. In general, most studies have found that Whites and American Indians consume more alcohol and engage in higher levels of high-risk drinking than Hispanics, African Americans, Asian Americans, and others (Presley et al., 1996b).

Meilman, Presley, and Lyerla (1994) studied African American college students and high-risk drinking, using data from a 40,192-member subset of the Core national database. They noted that average weekly consumption of alcohol among African American college students
(1.8 drinks per week) is about one-third as high as the consumption rate of White college students (5.6 drinks per week). About two-thirds of African American students (68.5%) reported using alcohol at least once within the past year as compared to White students (88.3%). A total of 21.9% of African American college students were characterized as high-risk drinkers. This compares to the 45.4% of White college students that met the definition for high-risk drinking.

In a follow-up to the previous study, Meilman, Presley, and Cashin (1995) investigated the drinking habits of students at historically Black institutions (HBIs) compared to predominantly White institutions (PWIs). Using a subset of the Core national database, the researchers compared 6,222 students from HBIs and 6,129 students from PWIs. African American students at the HBIs consumed on average 1.4 alcoholic drinks per week, and White students at HBIs consumed on average 2.6 alcoholic drinks per week. African American students at PWIs consumed 1.7 alcoholic drinks per week; their White classmates consumed 4.9 drinks per week. Researchers found no significant difference in the rates of high-risk drinking at the HBIs between African Americans (22.5%) and Whites (22.3%). However, at the PWIs a significant difference was found: 39.6% of White students were high-risk drinkers compared to only 19.6% of African American students. This study suggests that the low-use culture of HBIs inhibits alcohol abuse by White students, and the high-use culture of PWIs encourages alcohol abuse by African American students on those campuses.

Globetti, Globetti, Lo, and Brown (1996) studied alcohol use among African American students at a moderate size, public institution in the South. A sample of 956 college students was obtained, and the Monitoring the Future instrument was used. These researchers found that 88% of African American students reported using alcohol within their lifetime. This finding was
similar to previous studies. A total of 81% reported consuming alcohol within the last year, and
52% reported use within the last month.

A national study of 45,632 college students using the Core national dataset showed that
Native American (42.3%) and White (42%) students were most likely to engage in high-risk
drinking. Asian American (21.6%) and African American (22.5%) students were found to be
least likely to engage in high-risk drinking. Hispanic students (35%) were between these two
groups (Presley et al., 1996a).

Wechsler et al. (2000) analyzed the results of the 1993, 1997, and 1999 College Alcohol
Study. They found a significant rise in abstinence from alcohol among Hispanics, African
Americans, and Asian Americans over this period. The percent of Hispanics who abstain rose
from 14.8% in 1993, to 19.1% in 1997, and 20.5% in 1999. The percentage of abstainers among
African American rose from 32.6% in 1993, to 33.2% in 1997, and 38% in 1999. Asian
American students’ abstinence rates rose from 32.1% in 1993, to 33.2% in 1997, and 36.7% in
1999. Abstinence rates for Whites rose from 13.1% in 1993, to 16.1% in 1997, and then dropped
to 15.6% in 1999.

This same study also looked at high-risk drinking by ethnic groups. High-risk drinking
for Hispanics dropped from 39% in 1993, to 37.9% in 1997, and then rose again to 39.5% in
1999. The rate for White students dropped from 48.4% in 1993, to 46.9% in 1997, and then rose
to 49.2% in 1999. In 1993, 15.7% of African American students engaged in high-risk drinking.
This rate went up to 19.1% in 1997, and then dropped to 15.5% in 1999. Asian American
students’ high-risk drinking rates ranged from 22.1% in 1993, to 25.3% in 1997, and then
dropped to 23.1% in 1999. In regard to ethnicity, the college students least likely to engage in
high-risk drinking continued to be African American and Asian American students.
Based on these studies one would expect members of minority and ethnic organizations on average to drink less and engage in less high-risk drinking than other college students. These students should also experience fewer negative consequences of alcohol use than their majority classmates. Nothing in the current literature suggests whether the alcohol-related beliefs of members of racial and ethnic minorities differ in any important way from the beliefs of White students, however.

Religion

The present study also investigated the role of student leadership and alcohol in religious groups. Religious affiliation has been noted in the literature as being negatively correlated with drinking.

A study by Clarke, Beeghley, and Cochran (1990) found that religious groups can shape individual behaviors and attitudes. Members of religious groups treat their religion as a frame of reference for creating their norms and values. This study found that high religiosity discourages underage drinking, drinking problems, and high-risk drinking.

In a 1993 study, Lo and Globetti surveyed 800 students at a large, public university in the South. This study used a locally developed instrument focused on the kinds of problems students had experienced in the past year and any possible lifetime problems with alcohol. They found that religiosity, as measured by church attendance, was negatively associated with alcohol use as well as high-risk drinking and problem drinking, and frequency of church attendance was positively correlated with abstinence from alcohol.

In a 1998 study, Poulson, Eppler, Satterwhite, Wuensch, and Bass examined alcohol consumption in regard to strength of religious beliefs and risky sexual behavior in college students. They surveyed 210 students from a large, public, university in a rural region of the
South. This study used a locally developed instrument of 88 questions on alcohol and other drug use, sexual behavior, and religious orientation. The researchers found that 60% of the respondents attended church on a regular basis. Most students in this survey (77%) did not believe that alcohol consumption was a sin. Poulson et al. found alcohol consumption to be positively correlated with risky sexual behavior; and strength of religious beliefs was negatively correlated with both alcohol consumption and risky sexual behavior.

A recent national study of 26,000 college students posited profiles of drinkers and non-drinkers. This study used the Environmental Assessment Instrument to create a picture of the “dispositions” – the thoughts, beliefs, and values – of students who drink heavily and students who do not drink at all. The researchers found that only non-drinkers described themselves as religious. These students were more likely than frequent drinkers to value attendance at church services. In addition, only students in the non-drinking group characterized going to church as fun (Goree & Szalay, 1996).

These studies suggest that students who affiliate with campus religious and interfaith organizations would drink less, engage less in high-risk drinking, and experience fewer negative consequences of alcohol use than other students. There is nothing in the current literature, however, to suggest how these students’ alcohol-related beliefs might differ from those of other students.

Leadership

The role of leadership has been minimally explored in regard to alcohol. Research about leadership has focused on students involved in Greek organizations and college athletes. Both Greeks and athletes have been shown in many studies to consume more alcohol than other
students (Presley, Meilman, & Cashin, 1993; Wechlser et al., 1997). Leaders in both these groups have been found to drink at least as much as other members and sometimes more.

Cashin et al. (1998) used a 25,411-member subset of the Core national database to investigate Greek affiliation and the role of leadership in comparison to alcohol use in the Greek system. They used responses from the Long Form of the Core Survey to determine students’ levels of leadership and involvement in Greek life. The focus of the study was to investigate alcohol use, negative consequences, and alcohol-related beliefs according to students’ level of involvement in fraternities and sororities. As expected, researchers found that students not involved in the Greek system averaged significantly fewer drinks per week, suffered fewer negative consequences of alcohol consumption, and engaged in high-risk drinking less often than did Greek students. Regarding leadership, the researchers found that leaders of Greek fraternities and sororities were engaging in high-risk drinking and experiencing high levels of negative consequences of alcohol consumption that were at least as high as those who attended Greek functions but were not in leadership positions. The beliefs of leaders in regard to the effects of alcohol were also very consistent with members and were not lower than the general membership. Leaders and non-leaders involved in the Greek system see alcohol as a tool for friendship, social activity, and sexual activity. These findings were in direct contrast to the researchers’ hypothesis that leaders would be serving as positive role models and consuming less alcohol due to risk management training and liability issues.

In a follow-up to that study, Leichliter et al. (1998) investigated alcohol use and consequences among students with varying levels of involvement in college athletics. They used a 51,483-member subset of the Core national database to gather data on athletes in leadership positions and those not in leadership positions. Consistent with previous studies, the researchers
found that college athletes engage in alcohol consumption and experience negative consequences more than non-athletes. They also found that student athletes in leadership positions (especially males) engage in heavier alcohol use and have more negative consequences and problems than those athletes not in leadership positions. This second finding was again in direct contrast to the hypothesis that students in leadership positions would be more responsible in their drinking habits and suffer fewer negative consequences from alcohol use. This study did not investigate beliefs concerning the effects of alcohol.

These studies suggest that use of alcohol, high-risk drinking, negative consequences, and acceptance of alcohol-related myths tend to rise as involvement rises in high-use student groups. However, these studies offer nothing to suggest how alcohol use, high-risk drinking, and acceptance of alcohol-related myths might vary with involvement in low-use student groups.

As noted earlier, Meilman et al. (1999) compared members of Greek organizations and athletes to investigate which group drinks more. Among other things, they found that the combination of Greek membership and athletic involvement was associated with the highest level of alcohol consumption, as compared to students involved in only one of the groups being studied. However, nothing in their study or in the additional literature examines the patterns and consequences of alcohol use, negative consequences, or alcohol-related myths of students in multiple leadership roles across different types of organizations. The present study extends that literature by focusing on leaders and non-leaders in low-use organizations, and by examining students with multiple leadership roles.

Personality

The present study did not specifically investigate personality factors. However, the personal dispositions of non-drinkers and frequent drinkers have been shown to be a predictor of
college student alcohol use, and these factors may be relevant in interpreting the results of the present study.

Goree and Szalay (1996) found that frequent drinkers are in general more extraverted and social than non-drinkers. These students view alcohol and other drugs as a way to relax. They enjoy parties and associate the campus primarily with social activities. Frequent users of alcohol focus on personal appearance and view themselves as fun, cool, crazy and exciting. Social gatherings and events are more interesting to this group than the educational aspects of college. They view the campus as a place of excitement and place that is cool. Frequent drinkers also view authority negatively, as something that is forced upon them.

Goree and Szalay (1996) also found that students who were non-drinkers tend to be more introverted and less social than frequent drinkers. These students take their role as a student seriously and are very disciplined, responsible, and respect authority. Non-drinkers do not associate alcohol with the concept of fun. Unlike frequent drinkers, non-drinkers are likely to place a high value on religion and refer to church as a source of fun. Non-drinkers see college as an academic environment, a place for learning and education. This group places a great deal of emphasis on personal responsibility. They tend to have a sense of obligation to those around them and to themselves.

**Person – Environment Theory**

Kurt Lewin developed a formula, $B = f(P \times E)$, that is commonly associated with the interactionist perspective of student development. The formula posits that behavior ($B$) is a function ($f$) of the interaction ($x$) of person ($P$) and environment ($E$) (Evans, Forney, & Guido-DiBrito, 1998). The interaction of the person and the environment results in behavioral outcomes.
“Person” describes the traits and characteristics of an individual. Demographics, cognitive styles, personality types, learning styles, and developmental levels are included. Lewin states that a person’s attributes influence behavior, but they are only one part of the equation.

“Environment” can be the familial, cultural, and social circumstances that impact a person’s life. For students in the college setting, the environment includes the institution type, selectivity, faculty, resources, social climate, size, location, curriculum, extra-curricular activities, and the other students they interact with (Evans et al., 1998).

This theory offers a way of understanding why people behave as they do and posits that characteristics; background; and where the person is living, studying, and working all play a role in that behavior. This theory would suggest that college student drinking could only be understood when both personal factors (e.g., race, religion, personality) and environmental factors (e.g., student culture) are considered.
Chapter 3

Method

The purpose of this study was to explore the relationship between student leadership and alcohol use. It was guided by the following null hypotheses:

1. There will be no statistically significant difference in the mean number of drinks per week for leaders of minority organizations as compared to non-leader members.

2. There will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for leaders of minority organizations as compared to non-leader members.

3. There will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by leaders of minority organizations as compared to non-leader members.

4. There will be no statistically significant difference in the mean number of alcohol-related myths to which leaders of minority organizations ascribe as compared to non-leader members.

5. There will be no statistically significant difference in the mean number of drinks per week for leaders of religious groups as compared to non-leader members.

6. There will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for leaders of religious groups as compared to non-leader members.

7. There will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by leaders of religious groups as compared to non-leader members.
8. There will be no statistically significant difference in the mean number of alcohol-related myths to which leaders of religious groups ascribe as compared to non-leader members.

9. There will be no statistically significant difference in the mean number of drinks per week for students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

10. There will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

11. There will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

12. There will be no statistically significant difference in the mean number of alcohol-related myths to which students in dual leadership roles ascribe as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations.

Sample

The sample for this study was provided by the Core Institute, which houses the responses of 700,000 college students who have completed the Core Survey since 1989 at over 1000 higher education institutions. This study uses the Long Form of the Core Survey; so only responses dating back to 1994 were used. The sample included the following: 500 randomly selected leaders of minority and ethnic organizations; 500 randomly selected active participant non-
leaders of minority and ethnic organizations; 500 randomly selected leaders of religious and interfaith groups; and 500 randomly selected active participant non-leaders of religious and interfaith groups. From this sample, 624 students were active in minority organizations only; 865 were involved in religious groups only; and 511 were active in both.

Instrument

The Core Alcohol and Drug Survey is a self-report survey designed to elicit data about attitudes, use, and consequences of alcohol and other drug use. The instrument consists of 39 items that can be optically scanned. A copy of the instrument appears in Appendix A.

In 1989 Core Alcohol and Drug Survey was created in an effort to assess the nature, scope, and consequences of alcohol and other drug use on college campuses. It was specifically developed for use with the college student population. It was designed to be a one-page instrument of high quality, reliable and valid, inexpensive, comparable to other surveys, and easy to administer.

The original one-page (two-sided) form included demographics, personal information, frequency of use, perceptions of others’ use, location of use, age of first use, patterns of use, family history, and consequences of use. Then in 1994 the Core Survey was modified to the current Long Form. It was expanded to two pages (two-sided) and contained all the previous questions, plus questions on participation in extracurricular activities, beliefs about alcohol, perceptions of friends’ thoughts, racial harassment and violence, perceptions of harm, and other questions.

The content areas of the Core Survey were developed on the basis of theoretical assumptions regarding alcohol and other drug use in the higher education setting and on previous research reported in the literature. Each item included in the Core Survey was reviewed by a
panel of experts in the field of alcohol and other drug abuse prevention and then subjected to statistical tests on an item-by-item basis (Presley et al., 1996a).

For purpose of this study, five questions from the Core Survey were identified in order to gain data and analyze the results: #14, #15, #21, #24, and #27. Each of these is described in the paragraphs below.

Question #24 was used to identify the sample for the study. This question asked respondents to report whether they are involved in a number of different extracurricular activities. Two of the activities listed in this item were the focus of this study: minority and ethnic organizations, and religious and interfaith groups.

Question #24 also asked to what extent students were involved in various activities. Respondents are able to select four possible options: Not Involved; Attended; Active Involvement Non-leader; or Leadership Position. Only “Active Involvement Non-leader” and “Leadership Position” responses were used in this study.

Question #15 asked respondents to list the average number of drinks they consume in a week. The response options range from 0 to 99.

Question #14 asked respondents to identify how many times in the past two weeks they have had five or more drinks in one sitting. The response options are: none; once; twice; three-to-five times; six-to-nine times; and 10 or more times.

Question #21 asked respondents to indicate how often they have experienced certain negative consequences due to drinking or drug use in the past year. There are 19 negative consequences listed, including having a hangover, missing classes, being arrested, being taken advantage of sexually, and being hurt or injured. The response options for the 19 negative
consequences are: Never; Once; Twice; Three-to-Five times; Six-to-Nine times; and 10 or more times.

Question #27 asked respondents if they believe alcohol has any of a list of effects. Response options are Yes and No. Each of the beliefs listed is actually an alcohol-related myth, such as “alcohol breaks the ice,” “alcohol makes food taste better,” and “alcohol facilitates sexual opportunities.”

Validity and Reliability

The Core Alcohol and Drug Survey was developed using APA standards for test development in order to insure validity and reliability (Presley et al., 1996a). The Core Institute at Southern Illinois University at Carbondale also continually examines the psychometric properties of the survey to ensure that they are obtaining the most accurate data possible and so that they can provide users with the best possible survey instrument (Presley et al., 1996a). Validity and reliability are important to the credibility of an instrument.

Validity ensures that the inferences made from the results of the test scores are appropriate, useful and meaningful. Reliability is the extent to which a survey is consistent over time and populations, and to which the same results can be obtained by other researchers using the same procedures as the first (Gall, Borg, & Gall, 1996). The Core instrument has been tested for content-related validity, construct validity, and test-retest reliability.

Validity

**Content-Related Validity.** Content-related evidence shows the degree to which the sample of items on an instrument or test is representative of a domain or universe of content. Content-related validity was established for the Core Survey by reviewing existing literature and instruments to ensure that the aspects, consequences, and types of alcohol and drug use were
sufficiently covered by items on the instrument. To ensure that the instrument measured the
domains of interest, a panel of experts reviewed each item on the survey. A threshold of .90 was
used for item inclusion. Professional judgment was used to identify and rate the universe of
content, select the content sample, and specify the format of the items and how they would be
scored (Presley et al, 1996a).

**Construct Validity.** Construct validity is the extent to which an instrument measures a
theoretical concept. Examples of such constructs in the Core Alcohol and Drug Survey are
anxiety, peer pressure, and perceptions of drinking norms. Intercorrelations among other items
and comparable results from other surveys measuring similar or identical constructs ensure that
the instrument is valid.

**Reliability**

Test-retest reliability determines if an instrument measures a construct the same way on
different occasions during which respondents complete the items. If the same individual scores
similarly to the same items on different occasions then the instrument is considered a stable and
reliable one. The Core Survey used the Spearman rank correlation coefficient and the phi
correlation coefficient to measure reliability. These are statistical measures of the relationship
between variables. If there is a large correlation value, then the two variables are more highly
related to each other. The correlation found for alcohol use within the last year was .98. The data
from these measures indicate that the Core Survey is a stable and reliable instrument (Presley,
Meilman, & Lyerla, 1993).

The Core Institute currently reports no reliability data for three of the four items in this
particular study. Several of the variables in the present study do not measure single constructs, so
they cannot be tested under Chronbach’s Alpha (question #27). Some of the other variables
(questions #14 and #15), are measures that are expected to change over time, so they are not tested using test-retest measures (E. R. Pimentel, personal communication, April 10, 2000).

However, test-retest correlations are available for relative alcohol use and the negative consequences questions of the study. Table 1 shows these values (Presley et al., 1993).

Data Analysis Procedures

Data for this study were analyzed using quantitative methods. All analyses were conducted using the Statistical Package for the Social Sciences (SPSS). An alpha level of .05 was used throughout.

First, obvious outlier cases were removed from the sample. These were found in responses to question #15, concerning the average number of alcoholic drinks consumed in one week. Any case with the response of 99 drinks per week was removed. There were eight cases with this response value, reducing the total sample to 1992. Six of the cases removed represented students in dual leadership positions and the remaining two cases represented one student involved in a non-leadership position in a minority organization and one student in a leadership position within a religious group.

Second, two new variables for leadership were created. The first leadership variable identified those students who were actively involved in only one group. Respondents were categorized as follows: students who were active non-leader members in minority organizations only (n = 319); students with leadership positions in minority organizations only (n = 304); students who were active non-leader members in religious groups only (n = 445); and students with leadership positions in religious groups only (n = 419).

The second leadership variable sorted all students (n = 1992) according to the number of leadership positions held. Respondents were categorized as follows: students with no leadership
Table 1

Test-Retest Correlations for Core Survey Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Test-Retest Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Use</td>
<td></td>
</tr>
<tr>
<td>Age of first</td>
<td>.95</td>
</tr>
<tr>
<td>Use in the last year</td>
<td>.98</td>
</tr>
<tr>
<td>Consequences</td>
<td></td>
</tr>
<tr>
<td>Hangover</td>
<td>.92</td>
</tr>
<tr>
<td>Poor test score</td>
<td>.62</td>
</tr>
<tr>
<td>Trouble with police, etc.</td>
<td>.68</td>
</tr>
<tr>
<td>Damaged property, fire alarm</td>
<td>.00</td>
</tr>
<tr>
<td>Argument or fight</td>
<td>.84</td>
</tr>
<tr>
<td>Nauseated or vomited</td>
<td>.96</td>
</tr>
<tr>
<td>Driven while intoxicated</td>
<td>.90</td>
</tr>
<tr>
<td>Missed a class</td>
<td>.86</td>
</tr>
<tr>
<td>Been criticized</td>
<td>.68</td>
</tr>
<tr>
<td>Thought I had a problem</td>
<td>1.00</td>
</tr>
<tr>
<td>Had a memory loss</td>
<td>.59</td>
</tr>
<tr>
<td>Later regretted action</td>
<td>.91</td>
</tr>
<tr>
<td>Arrested for DWI/DUI</td>
<td>.00</td>
</tr>
<tr>
<td>Sexual Advantage</td>
<td>.89</td>
</tr>
<tr>
<td>Tried, failed to stop</td>
<td>.97</td>
</tr>
<tr>
<td>Suicide attempt, thoughts</td>
<td>1.00</td>
</tr>
</tbody>
</table>
positions (n = 958); students with one leadership position in either minority organizations or religious groups (n = 887); and students with leadership positions in both minority organizations and religious groups (n = 147).

Third, three of the dependent variables were recoded to facilitate further analysis. These were the variables related to high-risk drinking, negative consequences, and alcohol-related beliefs.

Question #14 examines the frequency of high-risk drinking in a time span of two weeks. Respondents have six response options to choose from, ranging from “none” to “10 or more times.” This question was recoded into a new “high-risk” binary variable, that sorted respondents into those who did not engage in high-risk drinking at all and those who engaged in high-risk drinking one or more times.

Question #21 examines the negative consequences experienced in the last year as a result of alcohol use. There are 19 separate consequence items. For each item respondents have six response options to select, ranging from “never” to “10 or more times.” These items were recoded into a new binary variable, separating those who did not experience the negative consequence at all and those who experienced it one or more times. Then the number of consequences experienced by each student was determined by summing the 19 recoded items.

Question #27 examines alcohol-related beliefs. This question is in binary form (yes/no). Summing the positive responses to the 14 items in question #27 created a new “myth” variable.

After outliers were removed and necessary recoding was complete, frequencies and descriptive statistics were generated for demographic variables and dependent variables. Then the 12 null hypotheses were tested as follows.
The first four hypotheses examined responses of students who were active in minority organizations only. Responses of leaders and active non-leader members were compared. For hypotheses #1, #3, and #4, t-tests for independent means were performed. Hypothesis #1 used Core Survey question #15 as the dependent variable. The dependent variable for hypothesis #3 was the recoded “consequence” variable. For hypothesis #4 the recoded “myth” variable was used. Hypothesis #2 was analyzed using a chi-square test of independence. The dependent variable for this comparison was the recoded “high-risk” variable.

The next four hypotheses (#5 - #8) examined responses of students who were active in religious organizations only. Again, responses of leaders and non-leaders were compared. For hypothesis #5, #7, and #8 t-tests for independent means were performed. Hypothesis #5 used Core Survey question #15 as the dependent variable. The dependent variable for hypothesis #7 was the recoded “consequence” variable. For hypothesis #8 the recoded “myth” variable was used. Hypothesis #6 was analyzed using a chi-square test of independence. The dependent variable for this comparison was the recoded “high-risk” variable.

The last four hypotheses (#9 -#12) examined responses of students with no leadership positions, one leadership position, and dual leadership positions in minority organizations and religious groups. Hypotheses #9, #11, and #12 were analyzed with one-way ANOVAs (analysis of variance). Hypothesis #9 used Core Survey question #15 as the dependent variable. The dependent variable for hypothesis #11 was the recoded “consequence” variable. Hypothesis #12 used the recoded “myth” variable as the dependent variable. In each analysis a Scheffé post-hoc test was used to determine the nature of the difference among the three groups. The Scheffé is a conservative post hoc procedure that “sets the family-wise error rate at α [alpha] against all possible linear contrasts, not just pairwise contrasts” (Howell, 1987, p. 353). It was selected for
consistency with previous studies (Cashin et al., 1998; Leichliter et al., 1998; Meilman et al., 1999). Hypothesis #10 was analyzed using a chi-square test of independence. The dependent variable for this comparison was the recoded “high-risk” variable. Pair-wise comparisons were also generated among the three groups.
Chapter 4

Results

This chapter summarizes the results of the data analysis for the present study. First, the sample is described. Then the results are presented for the hypotheses examining the responses of students who were active in minority organizations only. Third, the results are presented for the hypotheses examining the responses of students who were active in religious groups only. Finally, the results are presented for the hypotheses examining the responses of students involved in zero leadership positions, one leadership position, or dual leadership positions.

Descriptive Statistics

It is important to note that the total number of respondents for each variable varies slightly. This variation is due to missing data from the respondents in the sample.

Gender

Of the entire sample of respondents, 38% were male students and 62% were female students. This distribution was similar among all the sub-samples. (See Table 2.)

Ethnic Origin

Roughly half of respondents were White. Native American, Hispanic, Asian/Pacific Islander, Black and other groups, comprised the remainder of the sample. The racial/ethnic distribution differs across the sub-samples, as would be expected given the nature of minority organizations. For students involved in religious groups only, a large majority (84%) of the respondents were White. The ethnicity of students involved only in minority organizations was spread fairly equally across White, Black, Hispanic, and Asian/Pacific Islander groups. For students with no leadership positions or one leadership position, about half the sample was White. The ethnicity of students involved in dual leadership roles was distributed predominantly
Table 2

Percentage Distributions of the Sample Groups and Roles by Gender

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Male %</th>
<th>Female %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1809</td>
<td>37.6%</td>
<td>62.4%</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>296</td>
<td>39.9%</td>
<td>60.1%</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>277</td>
<td>39.0%</td>
<td>61.0%</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>402</td>
<td>35.1%</td>
<td>64.9%</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>379</td>
<td>35.9%</td>
<td>64.1%</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>871</td>
<td>38.7%</td>
<td>61.3%</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>806</td>
<td>36.2%</td>
<td>63.8%</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>132</td>
<td>39.4%</td>
<td>60.6%</td>
</tr>
</tbody>
</table>
among Black (32%), White (29%), and Asian/Pacific Islander (14%) students. See Table 3 for the ethnic origins of students in the entire sample and sub-samples.

**Classification**

An overwhelming majority (94%) of the entire sample of students were undergraduates. Table 4 depicts the breakdown of classifications for all the groups in the present study.

**Age**

The mean age of respondents in the entire sample was 22.00 years old. For all the sub-samples in this study, the mean age fell between 21 and 23 years old. Over half the sample (56%) were under the legal drinking age of 21. Of the entire sample, 99% were 47 years of age or younger. The remaining one percent of students were 48 years and older. Table 5 displays the mean age and standard deviation for respondents of all groups in the study.

**Residence**

Of the total number of students in the sample, 51% lived on-campus and the remainder lived off-campus. This was consistent across all sub-samples, except for students in dual leadership positions. A majority of students in dual leadership positions lived on-campus (69%). The percentage of students living on-campus and off-campus for the entire sample and sub-samples can be viewed in Table 6.

**Employment**

For the entire sample 52% of the students worked part-time. Almost 10% of the respondents worked full-time and 38% of students did not work. These numbers were fairly similar in all the sub-samples, with a range of 42% - 59% of students working part time. Information about working status can be seen in Table 7.
Table 3

Percentage Distributions of the Sample Groups and Roles by Ethnic Origin

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Asian/Pacific Islanders</th>
<th>American Indian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1929</td>
<td>49.5%</td>
<td>18.5%</td>
<td>10.4%</td>
<td>14.1%</td>
<td>2.2%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>308</td>
<td>20.8%</td>
<td>22.4%</td>
<td>18.8%</td>
<td>26.6%</td>
<td>3.6%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>299</td>
<td>21.1%</td>
<td>25.4%</td>
<td>19.7%</td>
<td>26.8%</td>
<td>2.3%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>427</td>
<td>84.5%</td>
<td>3.7%</td>
<td>4.2%</td>
<td>3.7%</td>
<td>0.9%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>406</td>
<td>84.5%</td>
<td>5.9%</td>
<td>3.7%</td>
<td>3.2%</td>
<td>0.5%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>924</td>
<td>51.1%</td>
<td>16.7%</td>
<td>10.1%</td>
<td>14.2%</td>
<td>2.1%</td>
<td>6.0%</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>865</td>
<td>51.1%</td>
<td>18.3%</td>
<td>11.6%</td>
<td>14.1%</td>
<td>1.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>140</td>
<td>28.6%</td>
<td>32.1%</td>
<td>5.7%</td>
<td>13.6%</td>
<td>7.1%</td>
<td>12.9%</td>
</tr>
</tbody>
</table>
Table 4

Percentage Distributions of the Sample Groups and Roles by Classification

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
<th>Grad/Prof.</th>
<th>Degree</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1977</td>
<td>27.6%</td>
<td>23.3%</td>
<td>23.5%</td>
<td>19.8%</td>
<td>4.8%</td>
<td>0.4%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>319</td>
<td>26.3%</td>
<td>25.4%</td>
<td>24.1%</td>
<td>19.1%</td>
<td>3.8%</td>
<td>0.3%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>301</td>
<td>16.6%</td>
<td>21.9%</td>
<td>28.6%</td>
<td>26.2%</td>
<td>6.3%</td>
<td>0.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>444</td>
<td>32.9%</td>
<td>27.0%</td>
<td>19.1%</td>
<td>15.5%</td>
<td>4.3%</td>
<td>0.2%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>413</td>
<td>28.8%</td>
<td>21.8%</td>
<td>21.8%</td>
<td>20.8%</td>
<td>4.8%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>955</td>
<td>31.1%</td>
<td>24.9%</td>
<td>22.1%</td>
<td>17.2%</td>
<td>3.7%</td>
<td>0.2%</td>
<td>0.8%</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>878</td>
<td>23.7%</td>
<td>21.8%</td>
<td>24.6%</td>
<td>23.0%</td>
<td>5.9%</td>
<td>0.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>144</td>
<td>28.5%</td>
<td>22.2%</td>
<td>25.7%</td>
<td>17.4%</td>
<td>5.6%</td>
<td>0.7%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Table 5

Means and Standard Deviations of the Sample Groups and Roles by Age

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1970</td>
<td>22.00</td>
<td>6.24</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>317</td>
<td>21.49</td>
<td>5.52</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>301</td>
<td>21.28</td>
<td>3.81</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>439</td>
<td>21.66</td>
<td>5.43</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>414</td>
<td>23.40</td>
<td>7.83</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>950</td>
<td>21.57</td>
<td>5.52</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>877</td>
<td>22.44</td>
<td>6.38</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>143</td>
<td>22.21</td>
<td>9.13</td>
</tr>
</tbody>
</table>
Table 6

Percentage Distributions of Sample Groups and Roles by Residence

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>On-campus</th>
<th>Off-campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1774</td>
<td>51.1%</td>
<td>48.9%</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>289</td>
<td>49.8%</td>
<td>50.2%</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>273</td>
<td>51.3%</td>
<td>48.7%</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>395</td>
<td>45.1%</td>
<td>54.9%</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>363</td>
<td>45.5%</td>
<td>54.4%</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>861</td>
<td>49.6%</td>
<td>50.4%</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>783</td>
<td>49.7%</td>
<td>50.3%</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>130</td>
<td>69.2%</td>
<td>30.8%</td>
</tr>
</tbody>
</table>
Table 7

Percentage Distributions of the Sample Groups and Roles by Employment

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Not Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1956</td>
<td>9.4%</td>
<td>52.4%</td>
<td>38.3%</td>
</tr>
<tr>
<td>Minority Non-leader</td>
<td>315</td>
<td>10.8%</td>
<td>54.3%</td>
<td>34.9%</td>
</tr>
<tr>
<td>Minority Leader</td>
<td>297</td>
<td>6.4%</td>
<td>58.9%</td>
<td>34.7%</td>
</tr>
<tr>
<td>Religious Non-leader</td>
<td>437</td>
<td>8.7%</td>
<td>50.8%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Religious Leader</td>
<td>415</td>
<td>9.9%</td>
<td>50.8%</td>
<td>39.3%</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>938</td>
<td>9.5%</td>
<td>52.0%</td>
<td>38.5%</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>874</td>
<td>8.7%</td>
<td>54.5%</td>
<td>36.8%</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>130</td>
<td>12.5%</td>
<td>41.7%</td>
<td>45.8%</td>
</tr>
</tbody>
</table>
Marital Status

In the entire sample, 88% of students were single. The percentage of single students rose to around 94% for those involved in minority organizations only. In the religious sub-sample, 88% of active non-leader members were single, whereas 79% of the students in leadership positions were single and 17% were married. Of all the sub-samples, the percentage of married students was highest for leaders in religious groups. Table 8 depicts the marital status of all cases and groups in the present study.

Drinks Per Week

The total sample mean for drinks per week was 3.61. This number is lower than the national average of 4.5 drinks per week for all college students (Presley et al., 1996a). Table 9 lists the means and standard deviations for all groups in the present study. The large standard deviations are typical of alcohol research and are due to the positive skew of the sample. Figure 1 demonstrates this skew for students in dual leadership roles.

High-Risk Drinking

Of the total sample, 28.2% reported engaging in high-risk drinking episodes at least once within the last two weeks. This is lower than the national average of 38% - 44% of students engaging in high-risk drinking (Presley et al., 1996a; Wechsler et al., 2000). Table 10 displays the frequency of high-risk drinking of the current sample.

Negative Consequences

The overall sample in this study experienced an average of 2.86 negative consequences in the last year as a result of alcohol use. For the remainder of the groups and roles in this study, the number varied from 1.95 to 4.69. Table 11 shows the means and standard deviations for the negative consequences question of this study.
Table 8

Percentage Distributions of the Sample Groups and Roles by Marital Status

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Single</th>
<th>Married</th>
<th>Separated</th>
<th>Divorced</th>
<th>Widowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1977</td>
<td>88.1%</td>
<td>8.5%</td>
<td>0.8%</td>
<td>2.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Minority Non-leader</td>
<td>319</td>
<td>93.4%</td>
<td>4.1%</td>
<td>1.3%</td>
<td>0.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Minority Leader</td>
<td>300</td>
<td>94.7%</td>
<td>4.7%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Religious Non-leader</td>
<td>443</td>
<td>88.3%</td>
<td>7.4%</td>
<td>0.2%</td>
<td>4.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Religious Leader</td>
<td>417</td>
<td>79.4%</td>
<td>17.3%</td>
<td>0.7%</td>
<td>2.4%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>952</td>
<td>90.7%</td>
<td>6.1%</td>
<td>0.5%</td>
<td>2.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>880</td>
<td>86.6%</td>
<td>11.4%</td>
<td>0.3%</td>
<td>1.4%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>145</td>
<td>80.0%</td>
<td>6.9%</td>
<td>4.8%</td>
<td>3.4%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
Table 9

Means and Standard Deviations of the Sample Groups and Roles for Drinks Per Week

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1958</td>
<td>3.61</td>
<td>9.49</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>313</td>
<td>3.39</td>
<td>7.17</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>297</td>
<td>3.66</td>
<td>9.84</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>441</td>
<td>3.82</td>
<td>7.52</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>410</td>
<td>2.32</td>
<td>7.41</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>945</td>
<td>3.46</td>
<td>7.56</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>868</td>
<td>2.75</td>
<td>8.08</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>145</td>
<td>9.75</td>
<td>20.38</td>
</tr>
</tbody>
</table>
Figure 1. Drinks per week for students in dual leadership roles.
Table 10

Percentages of High-Risk Drinkers for Sample Groups and Roles

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Number of High-Risk Drinkers</th>
<th>% of the Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1977</td>
<td>558</td>
<td>28.2%</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>318</td>
<td>114</td>
<td>35.8%</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>302</td>
<td>89</td>
<td>29.5%</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>440</td>
<td>152</td>
<td>34.5%</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>415</td>
<td>72</td>
<td>17.3%</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>951</td>
<td>319</td>
<td>33.5%</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>880</td>
<td>187</td>
<td>21.3%</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>146</td>
<td>52</td>
<td>35.6%</td>
</tr>
</tbody>
</table>
Table 11

Means and Standard Deviations of Sample Groups and Roles for Number of Types of Negative Consequences Experienced as a Result of Alcohol Use

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1844</td>
<td>2.86</td>
<td>3.76</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>296</td>
<td>3.24</td>
<td>3.74</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>282</td>
<td>3.08</td>
<td>3.34</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>412</td>
<td>3.15</td>
<td>3.45</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>398</td>
<td>1.95</td>
<td>3.24</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>889</td>
<td>3.07</td>
<td>3.65</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>833</td>
<td>2.37</td>
<td>3.34</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>122</td>
<td>4.69</td>
<td>5.96</td>
</tr>
</tbody>
</table>
Alcohol-Related Beliefs

The total sample, on average, ascribed to 5.05 alcohol-related myths. For the sub-sample in this study, the average number ranged from 4.03 to 6.54. Table 12 depicts the means and standard deviations for the number of alcohol-related myths students believe.

Minority Organizations

Hypotheses #1 - #4 compare the responses of leaders (n = 304) and active non-leader members (n = 319) of students involved only in minority organizations. No statistically significant difference was found in all the comparisons for minority organizations. As expected, the sample of students involved only in minority organizations consumed alcohol at rates lower than the national average. The national average consumption rate for all college students is 4.5 drinks per week (Presley et al., 1996a).

Drinks Per Week

Hypothesis #1 states: there will be no statistically significant difference in the mean number of drinks per week for leaders of minority organizations as compared to non-leader members. A t-test for independent means was calculated comparing leaders (M = 3.66, SD = 9.84) to active non-leader members (M = 3.39, SD = 7.17). No statistically significant difference was found (t = -.39, df = 608, p = .694). The null hypothesis was not rejected in this analysis. (See Table 13 for the results.)

High-Risk Drinking

Hypothesis #2 states: there will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for leaders of minority organizations as compared to non-leader members. A chi-square test of independence was calculated to compare the frequency of high-risk drinking between the leaders (29.5%) and
Table 12

Means and Standard Deviations of the Sample Groups and Roles for the Number of Alcohol-Related Myths in Which Students Believe

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>1891</td>
<td>5.05</td>
<td>4.11</td>
</tr>
<tr>
<td>Minority Non-leaders</td>
<td>300</td>
<td>5.75</td>
<td>4.20</td>
</tr>
<tr>
<td>Minority Leaders</td>
<td>290</td>
<td>5.59</td>
<td>3.77</td>
</tr>
<tr>
<td>Religious Non-leaders</td>
<td>421</td>
<td>5.28</td>
<td>3.93</td>
</tr>
<tr>
<td>Religious Leaders</td>
<td>400</td>
<td>4.03</td>
<td>3.74</td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>910</td>
<td>5.29</td>
<td>4.07</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>848</td>
<td>4.55</td>
<td>3.88</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>133</td>
<td>6.54</td>
<td>5.18</td>
</tr>
</tbody>
</table>
Table 13

Means and Standard Deviations and t-Test Results of Leaders and Non-leaders for Drinks Per Week, Number of Types of Negative Consequences Experienced, and Alcohol-Related Myths in Which Students Believe for Minority Organizations

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinks Per Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Leaders</td>
<td>313</td>
<td>3.39</td>
<td>7.17</td>
<td>608</td>
<td>-.39</td>
<td>.69</td>
</tr>
<tr>
<td>Leaders</td>
<td>297</td>
<td>3.66</td>
<td>9.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consequences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-leaders</td>
<td>296</td>
<td>3.24</td>
<td>3.74</td>
<td>576</td>
<td>.54</td>
<td>.59</td>
</tr>
<tr>
<td>Leaders</td>
<td>282</td>
<td>3.08</td>
<td>3.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-leaders</td>
<td>300</td>
<td>5.75</td>
<td>4.20</td>
<td>588</td>
<td>.47</td>
<td>.64</td>
</tr>
<tr>
<td>Leaders</td>
<td>290</td>
<td>5.59</td>
<td>3.77</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
non-leader members (35.8%). The difference was not statistically significant (chi square = 2.86, 
$df = 1$, $p = .09$). The null hypothesis was not rejected. (See Table 14 for the results of the test.)

**Negative Consequences**

Hypothesis #3 states: there will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by leaders of minority organizations as compared to non-leader members. A t-test for independent means was calculated comparing leaders ($M = 3.08$, $SD = 3.34$) to active non-leader members ($M = 3.24$, $SD = 3.74$). No statistically significant difference was found ($t = .54$, $df = 576$, $p = .59$). The null hypothesis was not rejected. (See Table 13 for the results.)

**Alcohol-Related Beliefs**

Hypothesis #4 states: there will be no statistically significant difference in the mean number of alcohol-related myths to which leaders of minority organizations ascribe as compared to non-leader members. A t-test for independent means was calculated comparing leaders ($M = 5.59$, $SD = 3.77$) to active non-leader members ($M = 5.75$, $SD = 4.20$). No statistically significant difference was found between the two groups ($t = .47$, $df = 588$, $p = .64$). Therefore the null hypothesis was not rejected. (See Table 13 for the results.)

**Religious Groups**

Hypotheses #5 - #8 compare the responses of leaders ($n = 419$) and active non-leader members ($n = 445$) for students involved in religious groups only. All the comparisons for religious groups were found to be statistically significant. As expected, students involved in religious groups only consumed alcohol at a lower rate than the college student national average.

**Drinks Per Week**

Hypothesis #5 states: there will be no statistically significant difference in the mean
Table 14

Chi-square Results of Leaders and Non-leaders for High-Risk Drinking for Minority Organizations

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>High-Risk Drinkers</th>
<th>Non-High-Risk Drinkers</th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-leaders</td>
<td>318</td>
<td>114</td>
<td>204</td>
<td>2.86</td>
<td>1</td>
<td>.09</td>
</tr>
<tr>
<td>Leaders</td>
<td>302</td>
<td>89</td>
<td>213</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


number of drinks per week for leaders of religious groups as compared to non-leader members. A t-test for independent means was calculated comparing the leaders (M = 2.32, SD = 7.41) to active non-leader members (M = 3.82, SD = 7.52). A statistically significant difference was found (t = 2.92, df = 846.17, p = .004), and the null hypothesis was rejected. (See Table 15 for the results.)

High-Risk Drinking

Hypothesis #6 states: there will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for leaders of religious groups as compared to non-leader members. A chi-square test of independence was calculated to compare the percentage who engage in high-risk drinking for leaders (17.3%) and non-leader members (34.5%). A statistically significant difference was found (chi square = 32.66, df = 1, p = .000). The null hypothesis was rejected. (See Table 16 for the results.)

Negative Consequences

Hypothesis #7 states: there will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by leaders of religious groups as compared to non-leader members. A t-test for independent means was performed comparing leaders (M = 1.95, SD = 3.24) to active non-leader members (M = 3.15, SD = 3.45). A statistically significant difference was found (t = 5.1, df = 807.41, p = .000). The null hypothesis was rejected. (See Table 15 for the results.)

Alcohol-Related Beliefs

Hypothesis #8 states: there will be no statistically significant difference in the mean number of alcohol-related myths to which leaders of religious groups ascribe as compared to non-leader members. A t-test for independent means was calculated comparing leaders (M = 4.03, SD =
Table 15

Means and Standard Deviations and t-Test Results of Leaders and Non-leaders for Drinks Per Week, Number of Types of Negative Consequences Experienced, and Alcohol-Related Myths in Which Students Believe for Religious Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinks Per Week</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Leaders</td>
<td>441</td>
<td>3.82</td>
<td>7.52</td>
<td>846.17</td>
<td>2.92</td>
<td>.004</td>
</tr>
<tr>
<td>Leaders</td>
<td>410</td>
<td>2.32</td>
<td>7.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consequences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-leaders</td>
<td>412</td>
<td>3.15</td>
<td>3.45</td>
<td>807.41</td>
<td>5.09</td>
<td>.000</td>
</tr>
<tr>
<td>Leaders</td>
<td>398</td>
<td>1.95</td>
<td>3.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-leaders</td>
<td>421</td>
<td>5.28</td>
<td>3.93</td>
<td>819.00</td>
<td>4.66</td>
<td>.000</td>
</tr>
<tr>
<td>Leaders</td>
<td>400</td>
<td>4.03</td>
<td>3.74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 16

Chi-Square Results for Leaders and Non-leaders for High-Risk Drinking for Religious Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Number of High-Risk Drinkers</th>
<th>Number of Non-High-Risk Drinkers</th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-leaders</td>
<td>440</td>
<td>152</td>
<td>288</td>
<td>32.66</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>Leaders</td>
<td>415</td>
<td>72</td>
<td>343</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.74) to active non-leader members (M = 5.28, SD = 3.93). A statistically significant difference was found between the two groups (t = 4.66, df = 819.00, p = .000). The null hypothesis was rejected. (See Table 15 for the results.)

Number of Leadership Roles

Hypotheses #9 - #12 compare the responses of students with dual leadership positions (n = 147), one leadership position (n = 887), and zero leadership positions (n = 958). In each case students with dual leadership roles were found to have significantly greater involvement with alcohol. Students with one leadership position were found to have significantly lower rates of alcohol use than the other two groups.

Drinks Per Week

Hypothesis #9 states: there will be no statistically significant difference in the mean number of drinks per week for students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations. A one-way ANOVA was calculated comparing dual leaders (M = 9.75, SD = 20.38) to those with one leadership position (M = 2.75, SD = 8.08), and those with zero leadership positions (M = 3.46, SD = 7.56). A statistically significant difference was found among the groups (F(2, 1955) = 35.23, df = 2, p = .000). A Scheffé post-hoc test was used to determine the nature of the difference among the groups. This analysis revealed that students with dual leadership roles consumed significantly more alcohol than students who held leadership positions in one or zero organizations. The null hypothesis was rejected. (See Table 17 for the results of the ANOVA. Table 18 displays the post hoc Scheffé test results.)
Table 17

Analysis of Variance for Students in Dual, One, and Zero Leadership Roles for Drinks Per Week

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6136.10</td>
<td>2</td>
<td>3068.05</td>
<td>35.23</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>170273.57</td>
<td>1955</td>
<td>87.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>176409.67</td>
<td>1957</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 18

Post Hoc Scheffé Test Results for Students in Dual, One, and Zero Leadership Roles for Drinks Per Week

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero Leadership Roles</td>
<td>945</td>
<td>3.46</td>
<td>7.56</td>
<td>.268</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>868</td>
<td>2.75</td>
<td>8.08</td>
<td></td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>945</td>
<td>3.46</td>
<td>7.56</td>
<td>.000</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>145</td>
<td>9.75</td>
<td>20.38</td>
<td></td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>868</td>
<td>2.75</td>
<td>8.08</td>
<td>.000</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>145</td>
<td>9.75</td>
<td>20.38</td>
<td></td>
</tr>
</tbody>
</table>
High-Risk Drinking

Hypothesis #10 states: there will be no statistically significant difference in the percentage of those who consume five or more drinks at one sitting at least once in two weeks for students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations. A chi-square test of independence was calculated to compare those in dual leadership roles (35.6%), one leadership role (21.3%), and zero leadership roles (33.5%). A statistically significant difference was found among the groups (chi-square = 38.35, df = 2, p = .000). Pairwise analysis revealed students with dual leadership positions (chi-square = 14.47, df = 1, p = .000), and zero leadership positions (chi-square = 34.54, df = 1, p = .000), were statistically significantly greater than and the group with only one leadership role. There was no statistically significant difference between the students with dual leadership positions and the students with zero leadership positions (chi-square = .24, df = 1, p = .622). The null hypothesis was rejected. (See Table 19 for the results.)

Negative Consequences

Hypothesis #11 states: there will be no statistically significant difference in the mean number of negative consequences of alcohol use experienced by students in dual leadership roles as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations. A one-way ANOVA was calculated comparing dual leaders (M = 4.69, SD = 6) to those who with one leadership position (M = 2.37, SD = 3.34), and those with zero leadership positions (M = 3.07, SD = 3.65). A statistically significant difference was found among the groups (F(2, 1841) = 23.5, df = 2, p = .000). A Scheffé post-hoc test was used to determine the nature of the difference among the groups. This analysis revealed that students with dual leadership roles experienced significantly more negative consequences than students.
Table 19

Chi-Square Results for High-Risk Drinking for Students in Dual, One, and Zero Leadership Roles

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Number of High-Risk Drinkers</th>
<th>Number of Non-High-Risk Drinkers</th>
<th>Chi-square</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero Leadership Roles</td>
<td>951</td>
<td>319</td>
<td>632</td>
<td>38.35</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>880</td>
<td>187</td>
<td>693</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>146</td>
<td>52</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>951</td>
<td>319</td>
<td>632</td>
<td>34.54</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>880</td>
<td>187</td>
<td>693</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>951</td>
<td>319</td>
<td>632</td>
<td>.243</td>
<td>1</td>
<td>.622</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>146</td>
<td>52</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>880</td>
<td>187</td>
<td>693</td>
<td>14.47</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>146</td>
<td>52</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
who held leadership positions in one or zero organizations. The null hypothesis was rejected. (See Table 20 for the results. Table 21 displays the post hoc Scheffé test results.)

**Alcohol-Related Beliefs**

Hypothesis #12 states: there will be no statistically significant difference in the mean number of alcohol-related myths to which students in dual leadership roles ascribe as compared to students with single leadership roles and students with zero leadership roles in minority and religious organizations. A one-way ANOVA was calculated comparing those in dual leadership roles (M = 6.54, SD = 5.18), to those with one leadership position, (M = 4.55, SD = 3.88), and those with zero leadership positions (M = 5.29, SD = 4.07). A statistically significant difference was found among the groups (F(2, 1888) = 16.73, df = 2, p = .000). A Scheffé post-hoc test revealed that students with dual leadership roles believed more alcohol-related myths than students who held leadership positions in one or zero organizations. The null hypothesis was rejected. (See Table 22 for the results. Table 23 displays the post hoc Scheffé test results.)
Table 20

**Analysis of Variance for Students in Dual, One, and Zero Leadership Roles for Number of Types of Negative Consequences Experienced**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>647.79</td>
<td>2</td>
<td>323.89</td>
<td>23.49</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25382.83</td>
<td>1841</td>
<td>13.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26030.62</td>
<td>1843</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 21

Post Hoc Scheffé Test Results for Students in Dual, One, and Zero Leadership Roles for Number of Types of Negative Consequences Experienced

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero Leadership Roles</td>
<td>889</td>
<td>3.07</td>
<td>3.65</td>
<td>.000</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>833</td>
<td>2.37</td>
<td>3.34</td>
<td></td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>889</td>
<td>3.07</td>
<td>3.65</td>
<td>.000</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>122</td>
<td>4.69</td>
<td>5.96</td>
<td></td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>833</td>
<td>2.37</td>
<td>3.34</td>
<td>.000</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>122</td>
<td>4.69</td>
<td>5.96</td>
<td></td>
</tr>
</tbody>
</table>
Table 22

Analysis of Variance for Students in Dual, One, and Zero Leadership Roles for Alcohol-Related Myths in Which Students Believe

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>555.74</td>
<td>2</td>
<td>277.87</td>
<td>16.73</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>31360.35</td>
<td>1888</td>
<td>16.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31916.09</td>
<td>1890</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 23

Post Hoc Scheffé Test Results for Students in Dual, One, and Zero Leadership Roles for Alcohol-Related Myths in Which Students Believe

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero Leadership Roles</td>
<td>910</td>
<td>5.29</td>
<td>4.07</td>
<td>.001</td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>848</td>
<td>4.55</td>
<td>3.88</td>
<td></td>
</tr>
<tr>
<td>Zero Leadership Roles</td>
<td>910</td>
<td>5.29</td>
<td>4.07</td>
<td>.004</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>133</td>
<td>6.54</td>
<td>5.18</td>
<td></td>
</tr>
<tr>
<td>One Leadership Role</td>
<td>848</td>
<td>4.55</td>
<td>3.88</td>
<td>.000</td>
</tr>
<tr>
<td>Dual Leadership Roles</td>
<td>133</td>
<td>6.54</td>
<td>5.18</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 5

Discussion

The purpose of this study was to explore the relationship between student leadership and alcohol use. Previous literature had examined alcohol use of leaders and non-leaders in high-use organizations – Greeks and athletes. This study extends that literature by focusing on leaders and non-leaders in low-use organizations, and by examining students with multiple leadership roles.

The research used existing data from the Core Alcohol and Drug Survey. A random sample of 2,000 respondents was obtained from the Core Institute at Southern Illinois University – Carbondale. Respondents were leaders and non-leader members of minority and ethnic organizations and religious and interfaith groups. From this total sample, 624 students were active in minority organizations only, 865 were involved in religious groups only, and 511 were active in both.

The Core Alcohol and Drug Survey is a self-report survey designed to elicit data about attitudes, use, and consequences of alcohol and other drug use. It examines the prevalence of alcohol and other drug use, consequences of use, age of first use, family history, campus climate, violence, extracurricular and social activities, beliefs about alcohol and other drug use, perceptions of others’ use, and sexual behavior. The instrument consists of 39 items that can be optically scanned. A copy of the instrument appears in Appendix A.

This study was guided by 12 null hypotheses. The dependent variables for these hypotheses were drinks per week, high-risk drinking, negative consequences of alcohol use, and alcohol-related myths. These four dependent variables were measured for leaders and non-leaders of minority organizations and religious groups, and for students in dual, one, or zero leadership positions.
General Findings

This study began with an assumption that minority and religious organizations are low-use groups. This assumption proved to be accurate. The national average for drinks per week for college students is 4.5 (Presley et al., 1996a; Wechsler et al., 2000). As expected, the entire sample of students drank less (3.61 drinks per week) than the national average. This low-use pattern was true for both minority organizations (3.54 drinks per week) and religious groups (3.08 drinks per week). The student organizations represented by this study are low-use organizations, in contrast to Greeks and athletes who have been studied previously (Cashin et al., 1998; Leichliter et al., 1998; Meilman et al., 1999; Wechsler et al., 1997).

The findings of this study and previous research suggest that leaders of all student organizations drink at least as much as non-leaders in those organizations, and frequently drink more. Further, students who hold dual leadership roles – even in low-use organizations – drink more than other leaders. The single exception to this rule is students who are leaders of religious organizations, and who do not hold other leadership positions. Only these religious leaders are involved with alcohol less than non-leaders in their organizations.

Results for Minority Organizations

Hypotheses #1 - #4 concerned leaders and non-leader members of minority organizations. Leaders and non-leader members consumed alcohol at similar rates, engaged in high-risk drinking at almost equal percentages, experienced comparable negative consequences resulting from alcohol use, and ascribed to a similar number of alcohol-related myths, with the leaders being non-significantly higher on drinks per week. These findings are consistent with previous research on high-use organizations that found that leaders drink as least as much as non-leaders (Cashin et al., 1998; Leichliter et al., 1998).
Results for Religious Groups

Hypotheses #5 - #8 concerned leaders and non-leader members of religious groups. For these groups a statistically significant difference was found for each hypothesis. Leaders of religious groups were found to have statistically significantly lower involvement with alcohol on all variables investigated, as compared to non-leader members. They consumed less alcohol, were less likely to engage in high-risk drinking, experienced fewer negative consequences from alcohol use, and ascribed to fewer alcohol-related myths than non-leader members of their organizations.

This finding is not consistent to previous literature related to student leadership. Religious organizations are the only type of student organization studied so far in which the involvement of the leaders with alcohol is lower than that of the other members (Cashin et al., 1998; Leichliter et al., 1998; Meilman et al., 1999; Wechsler et al., 1997). However this finding is consistent with previous literature indicating that religious affiliation and religious values are negatively associated with alcohol use (Clarke et al., 1990; Goree & Szalay, 1996; Lo & Globetti, 1993; Poulson et al., 1998).

Results for Dual, One, and Zero Leadership Roles

Hypotheses #9 - #12 concerned students in dual leadership roles, one leadership role, and zero leadership roles of minority organizations and religious groups. A statistically significant difference was found on all variables investigated, with students in dual leadership roles having the highest level of involvement with alcohol. This finding is similar to previous research that found higher rates of drinking among students who are both Greek and athletes than among those involved in only one of these organizations.
The most compelling finding of this study concerned students in dual leadership roles. Students holding leadership positions in both religious and minority organizations consumed alcohol at a significantly higher rate (9.75 drinks per week) than all other groups in the study. This figure is twice the national average for all college students (Presley et al., 1996a). Students in dual leadership roles consumed more drinks per week, were more likely to engage in high-risk drinking, experienced more negative consequences from alcohol use, and ascribed to more alcohol-related myths than students with one leadership role. This finding is especially interesting since, by definition, these high-use students were leaders in religious organizations (the lowest-use group) and also in minority organizations (another low-use group).

The Leader Factor

Understood in the context of the previous research on leaders in high-use groups, these findings suggest that a Leader Factor may exist. Leaders of student organizations drink at least as much alcohol as non-leaders in their organizations, and students who hold dual leadership roles drink at a significantly higher rate.

There appears to be a single exception to this rule. Students who are leaders of religious organizations, and who do not hold additional leadership positions, drink less than members of their organizations.

There are several reasonable explanations for this finding. The Leader Factor may result from the personalities and values of the leaders themselves (the person), or from the surrounding leader culture (the environment), or from an interaction between these two factors.

The personality and values of a student who is drawn to leadership positions – and particularly to multiple leadership roles – may be similar to the disposition of frequent drinkers. Frequent drinkers are characterized as extraverted and social. They view themselves as “fun,”
“cool,” and “exciting,” and they see alcohol and other drugs as a way to have a good time (Goree & Szalay, 1996). Students who are drawn to leadership roles may be similarly extraverted and social. Their social orientation may create an inherent vulnerability to frequent drinking.

Alternately, student leaders may become a part of a leader culture. Leaders of other student organizations may influence these students, who would otherwise not drink. Therefore, a student leader of a low-use group might begin to take on the behaviors of the whole leader culture in order to fit in with the majority of leaders who engage in heavy alcohol use.

A third explanation for the higher rate of drinking found in student leaders is the interaction of the first two effects. Lewin’s Person – Environment Theory states that behavior is a function of the interaction of the person and the environment: \( B = f(P \times E) \) (Evans et al., 1998). In this case, alcohol use can be seen as the behavior; the extraverted, social personality is the personal factor; and the leader culture is the environment. Student leaders engage in higher rates of alcohol use than members of their own organizations because of the way that their own social orientations combine with the culture of leadership.

Only students who are leaders of religious organizations – and of no other organizations – appear to be resistant to this Leader Factor. These students may rise to leadership because of their deeply held religious beliefs rather than from a more social disposition, and religious beliefs are negatively associated with alcohol use.

**Implications**

This is the first study to examine student leadership and alcohol use globally. It advanced the previous research that focused on leadership in high-use groups only. The Leader Factor identified in this study should provide fertile ground for future researchers to investigate alcohol and leadership.
The Leader Factor has serious implications for leadership development programs for all types of organizations. If the leaders of student organizations are engaging in higher amounts of alcohol use, experiencing a high number of negative consequences, and believing in more alcohol-related myths, then leadership development programs need to revised or re-tailored to address these concerns. It may be that the leadership development programs currently in place are not adequately developing the leader as whole. Instead they may only be focusing on specific aspects of leadership.

Student affairs professionals need to target all leaders, not just leaders in the high-use organizations, when designing and implementing leadership development programs specifically geared toward lowering alcohol involvement. These programs may not be the ultimate answer to combating the problem of alcohol abuse by leaders, but they may be a step in the right direction.

Another important step to be taken by university administrators might be to require all student organizations to become alcohol free at all of their functions. Currently, a handful of fraternities and sororities around the nation are making pledges to become alcohol free within the next two years. This is a pledge that may have a huge impact on lowering the drinking rates of leaders. If the environment is alcohol free, then the resistance to alcohol may be raised for both leaders and non-leaders. Administrators must understand that they will not be able to control the students and order them not to drink. However, if they help to change the environment by encouraging all student organizations to become alcohol free, perhaps this environmental influence will help in the lowering of alcohol involvement of student leaders.

Leadership recruitment should also be examined. If a Leader Factor does in fact exist, then those who are recruiting leaders should inquire as to the number of leadership positions
those they are recruiting already hold. Students should not be blocked from getting involved in multiple leadership roles, but knowing this information may aid in leadership development programs. Identifying those students who may be more vulnerable to alcohol use because of multiple involvements is an important pro-active approach to the problem of alcohol abuse.

The Leader Factor also has important implications for researchers. This study should be extended to other types of student groups, and by further investigation of students in multiple leadership roles. Leaders and non-leaders of political and social action groups, music and performing arts groups, service organizations, and special-interest groups are a few examples of other groups that should be studied.

Future researchers should also investigate the culture of leadership in regard to alcohol. The leader culture may be a direct cause of the increased alcohol use by leaders. Studies should be conducted on the norms and beliefs of the student leader culture. Without further investigation of a possible leader culture surrounding alcohol use, clear conclusions concerning the higher rates of alcohol use by leaders as compared to non-leaders cannot be drawn.

The personality types and dispositions of student leaders should be studied further in order to investigate the comparable differences between the dispositions of frequent drinkers and students in leadership roles. The social nature of student leaders may be one of the causes of leaders’ engaging in greater amounts of alcohol use.

Conclusion

This study found that student leaders are apparently at greater risk for alcohol abuse than non-leaders, and that multiple leadership roles are associated with significantly higher use of alcohol. This new finding adds an important layer to the existing understanding of the most serious public health problem in colleges and universities today.
References


Appendix A:

Core Alcohol and Drug Survey
1. Classification:
- Freshman
- Sophomore
- Junior
- Senior
- Grad/professional
- Not seeking a degree
- Other

2. Age:
- [ ] [ ]

3. Ethnic origin:
- American Indian
- Alaskan Native
- Hispanic
- Asian/Pacific Islander
- White (non-Hispanic)
- Black (non-Hispanic)
- Other

4. Marital status:
- Single
- Married
- Separated
- Divorced
- Widowed

5. Gender:
- Male
- Female

6. Is your current residence as a student:
- On-campus
- Off-campus

7. Are you working?
- Yes, full-time
- Yes, part-time
- No

8. Living arrangements:
   A. Where (mark best answer)
   - House/apartment/other
   - Residence hall
   - Approved housing
   - Fraternity or sorority
   - Other
   B. With whom (mark all that apply)
   - With roommate(s)
   - Alone
   - With parent(s)
   - With spouse
   - With children
   - Other

9. Approximate cumulative grade point average: (choose one)
   - [ ] A+
   - [ ] A
   - [ ] A-
   - [ ] B+
   - [ ] B
   - [ ] B-
   - [ ] C+
   - [ ] C
   - [ ] C-
   - [ ] D+
   - [ ] D
   - [ ] D-
   - [ ] F

10. Some students have indicated that alcohol or drug use at parties they attend in and around campus reduces their enjoyment, often leads to negative situations, and therefore, they would rather not have alcohol and drugs available and used. Other students have indicated that alcohol and drug use at parties increases their enjoyment, often leads to positive situations, and therefore, they would rather have alcohol and drugs available and used. Which of these is closest to your own view?
   - Have available
   - Not have available
   - With regard to drugs
   - With regard to alcohol

11. Student status:
   - Full-time (12+ credits)
   - Part-time (1-11 credits)

12. Campus situation on alcohol and drugs:
   - a. Does your campus have alcohol and drug policies?
   - b. If so, are they enforced?
   - c. Does your campus have a drug and alcohol prevention program?
   - d. Do you believe your campus is concerned about the prevention of drug and alcohol use?
   - e. Are you actively involved in efforts to prevent drug and alcohol use problems on your campus?

13. Place of permanent residence:
   - In-state
   - USA, but out of state
   - Country other than USA

14. Think back over the last two weeks. How many times have you had five or more drinks at a sitting?
   - None
   - Once
   - Twice
   - 3 to 5 times
   - 6 to 9 times
   - 10 or more times

15. Average # of drinks you consume a week:
   - [ ] [ ]
   - (If less than 10, code answers as 00, 01, 02, etc.)

16. At what age did you first use...
   - (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

*Other than a few snips
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. Opiates (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, 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 .........

20. Where have you used...
(mark all that apply)
- 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 .........

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 fire alarm, etc. .........
- e. Got into an argument or fight .........
- f. Got nauseated or vomited .........
- 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 .........
- o. Have taken advantage of another sexually .........
- p. Tried unsuccessfully to stop using .........
- q. Seriously thought about suicide .........
- r. Seriously tried to commit suicide .........
- s. Been hurt or injured .........

22. Have any of your family had alcohol or other drug problems: (mark all that apply)
- ○ Mother
- ○ Father
- ○ Stepfather
- ○ Stepmother
- ○ Brothers/sisters
- ○ Mother's parents
- ○ Father's parents
- ○ Spouse
- ○ Children
- ○ 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:
- ○ Don't volunteer, or less than 1 hour
- ○ 1-4 hours
- ○ 5-9 hours
- ○ 10-15 hours
- ○ 16 or more hours

Principal volunteer activity is:
24. Within the last year to what extent have you participated in any of the following activities? (mark one for each line)
   a. Intercolligate athletics
   b. Intramural or club sports
   c. Social fraternities or sororities
   d. Religious and interfaith groups
   e. International and language groups
   f. Minority and ethnic organizations
   g. Political and social action groups
   h. Music and other performing arts groups
   i. Student newspaper, radio, TV, magazine, etc.

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.
   a. Ethnic or racial harassment
   b. Threats of physical violence
   c. Actual physical violence
   d. Theft involving force or threat of force
   e. Forced sexual touching or fondling
   f. Unwanted sexual intercourse

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. Taking LSD once or twice
   g. Taking LSD regularly
   h. Taking 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

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

28. On this campus, drinking is a central part in the social life of the following groups? (mark one for each line)
   a. Male students
   b. Female students
   c. Faculty/staff
   d. Alumni
   e. Athletes
   f. Fraternities
   g. Sororities

29. Campus environment: (mark one for each line)
   a. Does the social atmosphere on this campus promote alcohol use?
   b. Does the social atmosphere promote other drug use?
   c. Do you feel safe on this campus?

30. Compared to other campuses with which you are familiar, this campus' use of alcohol is... (mark one)
   a. Greater than other campuses
   b. Less than other campuses
   c. About the same as other campuses

31. Housing preferences: (mark one for each line)
   a. If you live in university housing, do you live in a designated alcohol-free/drug-free residence hall?
   b. If no, would you like to live in such a residence hall if it were available?
### 32. To what extent do students on this campus care about problems associated with... (mark one for each line)

- Alcohol and other drug use
- Campus vandalism
- Sexual assault
- Assaults that are non-sexual
- Harassment because of gender
- Harassment because of sexual orientation
- Harassment because of race or ethnicity
- Harassment because of religion

### 33. To what extent has your alcohol use changed within the last 12 months?
- Increased
- About the same
- Decreased
- I have not used alcohol

### 34. To what extent has your illegal drug use changed within the last 12 months?
- Increased
- About the same
- Decreased
- I have not used drugs

### 35. How much do you think people risk harming themselves (physically or in other ways) if they... (mark one for each line)

- Try marijuana once or twice
- Smoke marijuana occasionally
- Smoke marijuana regularly
- Try cocaine once or twice
- Take cocaine regularly
- Try LSD once or twice
- Take LSD regularly
- Try amphetamines once or twice
- Take amphetamines regularly
- Take one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day
- Take four or five drinks nearly every day
- Have five or more drinks in one sitting
- Take steroids for body building or improved athletic performance
- Consume alcohol prior to being sexually active
- Regularly engage in unprotected sexual activity with a single partner
- Regularly engage in unprotected sexual activity with multiple partners

### 36. Mark one answer for each line:

- Did you have sexual intercourse within the last year? (mark yes/no)
- Did you drink alcohol the last time you had sexual intercourse?
- Did you use other drugs the last time you had sexual intercourse?

### 37. During the past 30 days, to what extent have you engaged in any of the following behaviors? (mark one for each line)

- Refused an offer of alcohol or other drugs
- Bragged about your alcohol or other drug use
- Heard someone else brag about his/her alcohol or other drug use
- Carried a weapon such as a gun, knife, etc. (do not count hunting situations or weapons used as part of your job)
- Experienced peer pressure to drink or use drugs
- Held a drink to have people stop bothering you about why you weren't drinking
- Thought a sexual partner was not attractive because he/she was drunk
- Told a sexual partner that he/she was not attractive because he/she was drunk

### 38. To what extent do you agree with the following statements? (mark one for each line)

- I feel valued as a person on this campus
- I feel that faculty and staff care about me as a student
- I have a responsibility to contribute to the well-being of other students
- My campus encourages me to help others in need
- I abide by the university policy and regulations that concern alcohol and other drug use

### 39. In which of the following ways does other students' drinking interfere with your life on or around campus? (mark yes/no for each line)

- Interrupts your studying
- Makes you feel unsafe
- Messes up your physical living space (cleanliness, neatness, organization, etc.)
- Adversely affects your involvement on an athletic team or in other organized groups
- Prevents you from enjoying events (concerts, sports, social activities, etc.)
- Interferes in other ways
- Doesn't interfere with my life
Education

Virginia Polytechnic Institute and State University
Thesis: The Leader Factor: Patterns of Alcohol Use, Negative Consequences, and Alcohol-Related Beliefs for Leaders and Non-leaders of Student Organizations

Miami University (Ohio)
B.A. – Sociology Double Minors: Criminology and Political Science, May 1998

Graduate Experience

Graduate Hall Director
Virginia Polytechnic Institute and State University
Cochrane Hall and Harper Hall
August 1999 – May 2000
- Supervise one senior staff member and 11 Resident Advisors.
- Manage two residence halls totaling 598 undergraduate students.
- Established a working relationship with the Athletic Department and Virginia Tech coaching staff, due to the fact that student athletes populate 40 – 45% of Cochrane Hall.
- Manage Harper Hall, a brand new residence hall opened in August 1999.
- Co-coordinated the formal dedication ceremony and building tours for Harper Hall.
- Maintain a close and positive working relationship with facilities, maintenance, housekeeping staffs, and the Virginia Tech Police Department.
- Serve as the advisor for two separate hall councils.
- Serve as a member of the on-call crisis response team for an on-campus population of 9,000 students.
- Collaborate with Area Coordinator on resolving major building issues.
- Manage four separate hall budget accounts totaling $1,400.
- Aid in the facilitation and instruction of the Introduction to Residence Education class for all new Resident Advisors.

Practicum – Residential and Dining Programs
Virginia Polytechnic Institute and State University
May 1999 – July 1999
- Acted as a co-editor and assisted in final production and distribution of the 275 page Residence Education Staff Manual.
- Conducted the orientation of the new 12-month graduate assistant for the graduate residence halls on campus.
- Created and systemized a database and manual for facilities control of over 4,000 keys for four residence halls, collaborated in the set-up of a new area office, and streamlined the general decentralization of departmental services.
- Conducted research on programming requirements of resident advisors at benchmark institutions.
Practicum – Office of Judicial Affairs  
Virginia Polytechnic Institute and State University  
January 1999 – May 1999
- Coordinated recruitment process and training of 18 Student Judicial Committee hearing officers.
- Served as an advisor for Student Judicial Committees.
- Conducted research on codes of conduct at benchmark institutions.
- Observed administrative disciplinary hearings with students.

Graduate Hall Director  
Virginia Polytechnic Institute and State University  
East Ambler-Johnston Hall  
August 1999 – May 2000
- Supervised one senior staff member and 10 Resident Advisors.
- Managed a residence hall totaling 404 undergraduate students.
- Served as the advisor for the building hall council.
- Established a working relationship with the instructor of the Marching Virginians, the student university marching band whose members are primarily housed in East Ambler-Johnston Hall.
- Served as a member of the on-call crisis response team for an on-campus population of 9,000 students.
- Managed two separate hall budget accounts totaling $800.
- Aided in the facilitation and instruction of the Introduction to Residence Education class for all new Resident Advisors.
- Collaborated with Area Coordinator on resolving major building issues.

Student Affairs Highlights

“Students Living in the World of Judicial Affairs” – Paid PresentationVirginia Tech Task Force on Multiple Forums of Adjudication  
February 2000
February 1999 – May 2000
Student Legal Services Board – Graduate Student Representative  
April 1999 – May 2000
Resident Advisor Application Evaluation and Selection Committee  
August 1999 – May 2000
Assistant Director for Judicial Affairs Search Committee  
Spring 1999 and 2000
Area Coordinator for Residential Dining Programs Search Committee  
Spring 1999
ACPA Commission XII CAS Standards Review Team  
Spring 1999

Undergraduate Experience

Judicial Affairs Office – Student Manager  
Richmond Police Department – Internship  
Summer Orientation Staff  
March 1995 – August 1996
Transfer Student Orientation Staff  
Resident Assistant  
August 1994 – May 1995

Professional Organizations and Affiliations

American College Personnel Association  
Member since 1996
National Association of Student Personnel Administrators  
Member since 1998
Association for Student Development (President, 1999)  
Member since 1998
National Residence Hall Honorary (Co-advisor, 1999 – 2000)  
Member since 1999
Sigma Tau Gamma National Fraternity  
Member since 1995