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CAMPUS SURVEY OF ALCOHOL AND OTHER DRUG NORMS: NEW JERSEY HIGHER EDUCATION CONSORTIUM EVALUATOR REPORT

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Chapter I: Introduction

This report has a two-fold purpose. The first is to provide a snapshot of the overall survey results of the nine schools who participated in the New Jersey Higher Education Consortium on Alcohol and Other Drug Prevention and Education project in 2007-2008. The presentation is a snapshot because each of the schools in the consortium received their individual school results directly from the CORE Institute. In addition, a comprehensive report on social norms campaign activities was produced in August 2007 by LaMastro & LaMastro, with which these schools can use to compare their results. The LaMastro & LaMastro (2007) report provided not only an overview of the existing literature with regard to alcohol and drug use by college students and social norms campaigns, but also provided details of the social norms campaigns implemented in New Jersey including examples of the campaigns. Further, LaMastro & LaMastro (2007) conducted analysis which provided measures of programmatic exposure to the social norms messages, and explored the predictive capacity of this exposure on student drinking behaviors.

While the present effort does not include measures of exposure, several other findings from LaMastro & LaMastro (2007) are replicated. These include sample descriptives by school (Table 1), self-reported student drinking behaviors (Table 2) and perceptions of others' drinking behaviors (Table 3). These measures are replicated for purposes of comparison to prior years, and to provide data necessary to present a profile of campus alcohol use, by respondent characteristics. These profiles explore drinking behaviors by gender, race, whether the respondent was 20 years old or younger (or 21 and over), whether housed on-campus or off, and by self-identified student affiliation – whether an athlete, or whether a member of a fraternity or sorority ("Greek Member"). These profiles are described in Chapter 2. Beyond reporting these campus alcohol use descriptives, the breadth and quality of the LaMastro & LaMastro (2007) report indicate there is no need to

re-examine these issues in depth, thus this author refers interested readers to that report for further edification.

The second purpose of this report is to report information obtained from the "wildcard" questions added to the CORE Campus Survey of Alcohol and Other Drug Norms instrument ("CORE survey"). These questions were created based on the interests of the nine colleges and universities involved in the Consortium, generated after meeting with the Consortium in October 2007 (see Appendix A for copies of the wildcard questions). The topics explored included medical amnesty, identifying the number of students who participate in pre-loading/pre-gaming drinking behaviors, the number of students who identify as being in recovery from substance abuse, identifying places that do not focus on drinking where students could and would go to if they wanted to recreate late at night, and to assess the best way to disseminate social norms messages. In addition, students were asked to identify the category of affiliation which **best** represented them. This question expanded the available categories beyond the CORE survey data to include those involved in athletics (either as an athlete or on an athletic scholarship), Greek members, academic or other scholarship recipients, those involved in student government, as a member of a university club, and those who were solely focused on academics, without any other university affiliation.

Finally, the wildcard survey included questions related to how believable students find the statement: "most students on campus choose to have '0 to 4' drinks when they party". As many studies of social norms have found this statement to be true, this statement is commonly used in campaigns. These "believability" questions, duplicated from a study by Polonec, Major & Atwood (2006), were added to address an issue raised by LaMastro & LaMastro (2007) with respect to the credibility of the social norms messages. Citing their own anecdotal experiences and the research findings of Polonec, et al., (2006), LaMastro & LaMastro (2007) assert the need to further explore the question of how believable students find the messages utilized in the social norms campaigns.

The current report responds to this call by exploring the questions posed in Polonec et al., (2006), and expands this line of inquiry by asking why the messages are not believable. Further, in their study, Polonec et al., (2006) split the sample of 277 college students into three groups – those who believed the social norms campaign messages less than other students "non-believers" (N=42), those who believed the messages more than other students "believers" (N=41) and those who believed (or didn't believe) the messages the same as other students, termed "looking-glass" (N=173). They then compared these groups on two measures of drinking behavior – number of days spent drinking alcohol and number of hangovers in the prior two weeks. This report replicates this categorization of groups in the analysis, but with a larger sample size (non-believers N=185, believers N=845, and looking glass N=2957), and will explore the average number of drinks the respondent typically consumed at parties and bars, and the number of times binged in the last two weeks as measures[1] of drinking behaviors to further explore patterns associated with the degree of belief in the campaign messages.[2]

Descriptions of the data, the sample and the report findings are explicated in Chapter 2. This is followed by a discussion including suggestions for future directions and a brief conclusion in Chapter 3. As previously noted, Appendix A contains the wildcard questions included in the CORE survey, and Appendix B contains one-page summary reports on selected wildcard data for each of the college participants (identified solely by an alphanumeric code). Each college has been informed

[1] While Polonec et al., (2006) looked at number of hangovers in the last two weeks this measure is not on the CORE survey examined in this project. Thus, while these results do not replicate the outcome measures of the Polonec et al (2006) study, they do provide an opportunity to examine this question within a similar behavioral construct.

[2] LaMastro & LaMastro, (2007) also discuss the "boomerang" effect of those students who rebel against the social norms messages and "consume larger amounts of alcohol to "prove" social norms messages wrong" (p. 34). This topic cannot be answered in the present study as this type of question must employ a different research design (e.g., pre-test and post-test) which ascertain the student's drinking behaviors before exposure to a social norms campaign, and then surveys the same respondents again to determine if there has been a change in behavior as a result of the intervention.

of their ID code, so that they may identify their own college and compare their results to the results of the other colleges, while maintaining anonymity.

Chapter II: Data and Findings

Data

This study is primarily descriptive in nature. Consequently, there is no attempt to examine the effectiveness of the social norms campaign, and no data related to the implementation of the campaign is included in the analysis. Data used in this report was collected and combined from the nine colleges and universities involved in the New Jersey Higher Education Consortium on Alcohol and Other Drug Prevention and Education (see Table 1 for descriptives of the sample for each school identified only by an alphabet letter code[3]). Eight of the nine schools used a web-based version of the CORE survey, while one school (School H) used paper versions of the instrument.[4] The wildcard questions had been submitted to the CORE survey administrators and were included as part of the web-based survey. Once students completed the survey, the data was aggregated by the CORE Institute at Southern Illinois University, and then submitted as a single data file. Combining the respondent surveys across these schools, rather than analyzing each school individually, is a key strength of the study because the larger sample size allows for cutting the data

[3] School identification letters are consistent with past year identifiers so that school A in 2006 is the same school as school A in 2008. However, schools F and G from prior years are not included in this year's data, so were not used.

[4] One college was not able to conduct their CORE survey on-line as intended. To address this issue, students completed a paper version of the CORE survey, and a separate paper version of the wildcard questions. The limitation in this approach was there was no way to create a common respondent identifier that would link the two surveys together. Understanding this from the outset, the paper version of the wildcard questions also contained key demographic variables including gender, age, and ethnic origin of the respondent, as well as current status (full-time or part-time), and classification (freshman, sophomore, other, and not seeking a degree) so as to allow for inclusion of these factors in examining the wildcard data. However, without a common respondent identifier to link the wildcard and CORE surveys together, this college (Identified as School "H") will not be included in any analysis which links CORE survey data to either demographic or wildcard data.

by a variety of respondent characteristics while still maintaining the minimum number of cases required to render conclusions about the results.[5]

Sample Description

The schools varied in their survey participation – from 99 survey respondents in School D to 845 respondents in School I. In total, 4,234 student surveys were analyzed in this report. Overall, respondents were more likely to be women (63%), to be white (70%) versus all other race/ethnic categories (e.g., Black, Asian, and Hispanic were collapsed into a single category of non-white), and are more likely to be under 21 years of age (55% of the sample) while 34% of the sample are from 21 to 24 years old and 11% are older than 25. Although it varies somewhat by institution (particularly with regard to school H), most respondents attend college full time and all classes (freshman, sophomore, junior and senior) are represented (between 20 to 27% of the sample), with a small number of respondents (4%) attending school for non-degree, professional or other reasons. On average, a little less than half live on-campus (47%), but this varies greatly – with a low of 15% living on campus at School H to a high of 75% at School B. The majority of students self-identify as focused primarily on academics (55%), while 14% identified as a non-athletic scholarship recipient, 14% classified themselves through their membership in a university club, and 8% stated they were members of the Student Government Association/Other Leader or Ambassador (these three distinct affiliation categories were collapsed into one category). Finally, 5% of students were Greek members and 4% of students advised they were athletes or were an athletic scholarship recipient. Again, these figures vary by college – School K reports 77% of students focused solely on academics, 8% of students are on a non-athletic scholarship, 4% are in student government, and 6% identify as a university club member. In contrast, 26% of School D respondents are focused

[5] The ability to make statistical inferences is based on the central limit theorem. It is an accepted statistical practice that a sample of a population can be representative of the overall population, provided there are a minimum number of cases examined (generally at least 50 cases). In essence, there is an assumption of a "normal" distribution (thus representative of the population at large) and the more cases you have, the more "normal" the distribution will theoretically appear.

solely on academics, 36% are on a non-athletic scholarship, 14% participate in student government and 17% are university club members. It is important to note these data are reported primarily for informational purposes, as this presentation does not in any way account for structural differences among the schools such as location (urban versus suburban), type of school (community college versus four-year university) or any other factor which would explain these differences.

In addition to the demographic, class status and type of affiliation of the survey respondents, Table 1 also provides the percent of those surveyed who are non-drinkers (based on a question on the CORE survey -- "If you never drink, fill in this oval"). Overall, 25% of survey respondents report they never drink, with variations across schools from a high of 33% of students from School D, and a low of 19% abstainers from School B. Several measures of binge drinking (number of times binged over the last two weeks and identifying those "Frequent Heavy Drinkers" who binged two or more times in the prior two weeks) are examined only with those respondents who drink in order to provide the more accurate base number of those who would have engaged in the behavior in the first place.[6]

Finally, Table 1 provides the percentage of students who state they find the messages of the social norms campaigns believable (a combination of those who responded believable and very believable), those who don't find the messages believable (not at all believable and not very believable collapsed), and those who were neutral (responded they found the messages neither unbelievable nor believable). Similar to the other findings described above, there is variability on the student's response to this question by school, yet a pattern remains. In the overall, 46% of students find the messages believable, 39% don't find the messages believable, and the remaining 15% are

[6] Running the analysis on the binge outcomes with everyone in the sample deflates the numbers because there are a significant number of respondents who don't drink at all. For instance, as noted on Table 2, when including all respondents in the sample, 21% are identified as Frequent Heavy Drinkers. However, dropping those who don't drink from the calculation, 28% report behavior indicating they are Frequent Heavy Drinkers -- a 7% difference.

neutral. Comparing across individual schools – School B has the most students reporting they do not find the messages believable (56%), with School K reporting 54% students believe the messages, respectfully. Within schools, students are fairly evenly split between believing the messages and not believing (e.g., Schools E and J), several schools have students who report a greater range (e.g., School I with 31% of students not believing the campaign messages and 53% of students reporting they do believe), while other schools have a greater number of students who posit a neutral position on the question (Schools D, E, and H have 17% of students reporting they neither believe nor disbelieve the messages).

While credibility of campaign message varies among these schools, and as noted with regard to the sample descriptives, theses questions were not examined while controlling for factors that may explain these differences. Such factors could include not only the specifics on how the campaign was implemented (e.g., number and type of strategies employed) or perhaps could be explained by differences among the students which influence their collective responses (e.g., a higher percentage non-drinkers or conversely, a larger presence of Greek members or Athletes (who generally engage in more drinking behaviors)) at one school versus another). It is also possible that these differences could be the result of schools incorporating the suggestions of LaMastro & LaMastro, 2007 in order to increase the credibility of the campaigns. Specifically by:

> "… aggressively [publicizing] the origin of the statistics. … [and providing] more training sessions … with various student groups across campus, particularly those seen as being at higher risk. … In small, informative sessions, individuals could be presented with the empirical basis of the social norms messages they see around campus, and thus be more convinced of their validity" (p. 37).

Given the current report does not incorporate campaign implementation as a factor in the analysis, this possibility is not examined herein. Nonetheless, schools who wish to address the believability or credibility issue directly may want to consider the strategies suggested by LaMastro &

LaMastro (2007). The next section of this report details the survey results related to self-reported drinking behaviors and perceptions of others' drinking behaviors.

Student Alcohol Use – Self-Report and Perceptions of Others

In prior years, the CORE survey data for the consortium schools provided information on key behaviors and perceptions of student alcohol use, and discussed differences by race/ethnicity, gender, collegiate affiliation (e.g., athlete or Greek member) and the like. The current report seeks to replicate this effort, but presents the results in a somewhat new fashion – within the context of a profile based on selected respondent characteristics. Table 2 provides five measures of student self-reported drinking behavior, both overall and by the respondent characteristics of gender, race, age, student affiliation and whether or not they live on-campus. Three of the outcomes are examined utilizing the entire sample -- 1) the average number of drinks consumed at a party or bar; 2) the average number of drinks consumed per week[7]; and 3) identification of "Dangerous Drinkers" defined as those who report they typically consume 7 or more drinks at a party of bar (coded as 1) versus those who do not (coded as 0). The remaining two outcomes are calculated based only on those who report they drink – 4) the number of times the individual binged (defined as drinking five or more drinks) in the last two weeks, and 5) identifying those who are "Frequent Heavy Drinkers" – individuals who binged 2 or more times in the preceding two weeks (coded as 1) versus those who had not (coded as 0).

The profiles will also utilize data provided in Table 3 – descriptives of perception of others' drinking behaviors by the same respondent characteristics examined in Table 2 - gender, race, age, student affiliation and whether or not they live on-campus. The outcome explored across five perceptual categories is the "average number of drinks _____consume at a party or bar". Each

[7] Consistent with LaMastro & LaMastro (2007), this variable was calculated based on two variables -- how frequently the respondent typically consumed alcohol and how many drinks the respondent typically consumed.

column in the table captures the respondent's assessment of a different population's drinking behavior for 1) your friends, 2) other students in general, 3) intercollegiate athletes, 4) Greek members and 5) those who reside on-campus[8].

Student Use of Alcohol – Overall Results

Table 2 provides the mean and standard deviation of overall drinking behaviors for all of the respondents who completed the survey, and the results for the sub-sample of respondents of "those who drink". For all respondents (N=4182), those surveyed report they typically consume an average of 3.40 drinks at a party or bar. Excluding those who do **not** drink, respondents (N=3146) report an average of 4.39 drinks consumed at a party or a bar. The next outcome calculates the average number of drinks consumed per week. Overall, respondents in the full sample report drinking an average of 4.78 drinks per week, while those who drink report a substantially higher use of 6.29 drinks per week.

Reviewing the distribution of this outcome below in Figure 1, using the entire sample, almost half of the respondents (46%) either never drinks or are very light drinkers (on average consuming less than 1 drink per week). An additional 24% drink from 1 to 3 drinks per week, and 12% consume from 4 to 6 drinks per week. The remaining are heavy drinkers – consuming from 7 to 10 drinks per week (5%); 11 to 20 drinks per week (6%) and 21 to 50 drinks per week (6%); a very small percentage (less than 1%) of the respondents report drinking more than 51 drinks per week. These results are consistent with the finding reported in Table 2 in the outcome identifying dangerous drinkers (those who typically consume 7 or more drinks at a party or bar) whereby .15 (or 15%) of the sample were identified as "Dangerous Drinkers". Narrowing the results to only those who drink, the percentage of the respondents identified as "Dangerous" rises to 20%.

[8] As LaMastro & LaMastro (2007) observe, this measure of residency fails to "distinguish between "off campus" students who live at home and those who reside independently or with other students" (p. 22). Consequently, these results are limited to treating all those who live on-campus as a homogeneous group, when in reality they may be quite distinct.

	Number of Respondents	Percent
Never Drinks	1335	32%
Very light Drinker – Less than 1 Per Week	605	14%
1 to 3 drinks	1021	24%
4 to 6 drinks	492	12%
7 to 10 drinks	216	5%
11 to 20 drinks	245	6%
21 to 50 drinks	248	6%
More than 51 drinks Per Week	34	.8%
Total	4196	100%

Figure 1: Distribution of Average Number of Drinks per Week N=4,196

In addition to the outcomes of average number of drinks consumed, average number of drinks per week, and identifying the population of Dangerous Drinkers, the two remaining outcomes examined in Table 2 are related to binge drinking. Overall, students report binging less than 1 time (.93 times) in the prior two weeks. However, when the results are limited to those who drink, that number increases to 1.22 times in the two week period. This variable – number of times binged in the prior two weeks – was also used to identify those "Frequent Heavy Drinkers" who binged 2 or more times in that period. For the full sample (including those who do NOT drink), 21% of the respondents were identified as Frequent Heavy Drinkers. Isolating the query to those who drink, the rate of Frequent Heavy Drinkers rises to 28%.

Table 3 provides another view of drinking behavior on the consortium college campuses – perceptions of others' alcohol use. As noted previously, the sole outcome in this examination is the perception of the average number of drinks others on campus consume at a party or bar. As with Table 2, the results are provided for both all respondents and for the sub-sample of only those who drink. Recall from Table 2 that respondents in the sample report an average consumption of 3.40 drinks at a party or a bar. However, observing the results in Table 3, across the board, students perceive that others drink more than they do – ranging from a low of 4.97 drinks typically consumed (their friends) to a high of 7.85 (Sorority and Fraternity/Greek members). This pattern holds when

one only examines those who drink – respondents who drink perceive their friends typically drink an average of 5.70 drinks, other students consume 5.85 drinks, students who live on-campus have 6.44 drinks, while intercollegiate athletes drink an average of 5.70 drinks and Greek members are thought to have 8.21 drinks at a party or a bar. The question is: are respondent's perceptions of others' use consistent with actual use? This can be examined more thoroughly in the next section of this report, which explores these outcomes through a descriptive profile defined by respondent characteristics.

Profiles of Student Drinking and Perceptions of Use

While it is certainly informative to provide an overview of alcohol use and perception of use, however, the findings presented above are analyzed without any regard for demographic and other characteristic differences among the sample which may account for these results.[9] Profiles of students based on these differences are described below, utilizing data provided in Tables 2 and 3.[10] Overall, these findings are consistent with prior research – generally speaking, men drink more than women, white students' drink more than non-white students, and athletes and Greek members both imbibe more than other students. These self-reported drinking behaviors also pattern with perceptions of others' behaviors, as discussed below.

Gender: Male Students

Male respondents in the CORE survey reported drinking significantly more ($p<.001$) than female respondents in these data across all outcomes. On average, males typically consume 4.20 drinks at a party (compared to females at 2.94 drinks) and have 7.41 drinks per week (females -- 3.33 drinks per week). Males are also much more likely to be both a Heavy Frequent Drinker and a Dangerous Drinker – 37% and 27% of men respectively, compared to 23% and 8% of women.

[9] Ideally these profiles would explore the data not solely by a single characteristic but intersectionally (e.g., looking at both race and gender simultaneously) and/or while controlling for other factors that may impact the outcomes. While the data are available to conduct this research, this type of multivariate analysis is beyond the scope of the present report.

[10] While the respondent specific analysis excludes 522 cases from School H, the overall findings on the outcome measures are substantively the same both with and without School H's data. See Tables 2 and 3 for these results.

Looking only at those who report they drink alcohol, males engaged in binge drinking 1.68 times in the prior two weeks compared females who binged slightly less than 1 time in that period. In terms of perceptions of others' drinking habits, the overall pattern of viewing others as drinking more than oneself holds with male students – they view their friends, other students, athletes, Greek members and those who live on campus as drinking more than they do. Male and female students differ significantly on only two outcomes – males view their friends as typically drinking 5.58 drinks per occasion, while women view friends drinking 4.63 drinks ($p<.001$); males are also more likely perceive that athletes drink more (5.63 drinks) than females, who believe athletes typically drink 5.35 drinks at a party or bar ($p<.05$).

Race: Caucasian Students

White students in the consortium colleges drink significantly more, drink more often, and binge more frequently than non-white students (statistically significantly at $p<.001$). On average, white students typically drink 3.8 drinks (compared to non-white students with 2.59 drinks), have 5.77 drinks per week (compared to 2.94 drinks) and binged 1.35 times in the prior two weeks (compared to .90). Additionally, of those students who drink, 37% of white students are identified as Frequent Heavy Drinkers and 27% are Dangerous Drinkers compared to 20% and 10% of non-white drinkers, respectively. While the pattern of perceptions of others drinking among white students is consistent with the overall patterns of perceptions as noted above, white students report their friends typically consume 5.27 drinks at a party or a bar, while the perceptions of non-white students are lower – their friends drink 4.38 drinks (significantly different $p<.001$). Other differences include how they view other students in general (white students perceive other students drink 5.68 drinks, non-white report 5.46 drinks ($p<.05$)) and how they view athletes (whites view athletes as drinking 5.53 drinks and non-whites view athletes drinking 5.30 drinks, equating to a mean difference between the number of drinks perceived of .23 (significant at $p<.10$)). With respect to

Greek members, the mean difference of .33 in the number of average drinks consumed between whites and non-whites on perspective of alcohol consumption is also significant (at $p<.05$).

Age: Under-Drinking Age Students

The under-drinking age results pattern somewhat differently than the other profiles. Exploring self-reported drinking behaviors for those under 21 years old versus those 21 and over (page 2 of Table 2) note that those aged 20 and under drink significantly **less** than those who are 21 and older, both in the number of drinks typically consumed (significant at $p<.05$), and in the average number of drinks per week ($p<.001$). However, when the analysis excludes those who do not drink, age is no longer a significant factor in either the number of times the respondent binged in the prior two weeks, or in the identification of the Frequent Heavy Drinker. Despite these similarities, the identification of the Dangerous Drinker for this type of student may be of particular interest because whereas in other profiles the number of Dangerous Drinkers is **higher** among those who report the **higher** number of drinks typically consumed, this is not the case for the underage drinkers. Those under 21 reported a **lower** average number of drinks, yet a **greater** proportion than those over 21 years old was identified as Dangerous Drinkers. Underage drinkers typically consume 3.30 drinks versus 3.56 for those 21 and older, while 17% of those underage students are identified as Dangerous Drinkers compared to 13% of older students (both outcomes statistically significant at $p<.05$). This inconsistency may indicate a need for further and/or targeted intervention for this particular group of students. Finally, the perception results on page 2 of Table 3 indicate that across outcomes, under-age students report perceptions that others drink more than they do, compared to those who are 21 and older (significant at $p<.001$).

Affiliation: Student Athletes

It is not surprising that athletes, previously identified in the literature as "high risk" (Perkins, 2003), are second only to Greek members in the number of drinks typically consumed at a party or a

bar (4.57 drinks on average) and in number of drinks drunk per week (7.65). Further, they drink significantly more than non-athletes on both outcomes -- 3.39 drinks on average ($p<.001$) and 4.77 drinks per week ($p<.05$). Athletes also binge more often (1.69 times in the prior two weeks compared to 1.21 times for non-athletes) and are more likely to be identified as both a Frequent Heavy Drinker (39% compared to 28% of non-athletes ($p<.05$)) and a Dangerous Drinker (28% of athletes compared to 15% of non-athletes ($p<.001$)). Related to perceptions of others' drinking patterns, athletes are significantly different from non-athletes in their assessment of their friend's drinking ($p<.001$), other students in general, and in their assessment of other athlete's drinking (both $p<.05$). However, there is no difference between athletes and non-athletes in their perceptions of drinking behaviors of Greek members or those who live on-campus.

Affiliation: Greek Members

Greek members are the highest risk group. They drink significantly more than non-Greek members (reporting drinking 5.29 drinks per occasion and averaging 11.88 drinks per week compared to 3.34 drinks typically and 4.53 drinks per week for non-Greek members) (at $p<.001$). For those Greek members who drink, they also binge more frequently than non-Greek members who drink. Greek members binged 2.70 times in the prior two weeks compared to 1.14 times for non-Greek members. The most startling statistic is that of those who drink, 59% of Greek members are Frequent Heavy Drinkers compared to 26% of non-Greek members. Finally, considering all cases, 27% of those participating in fraternities or sororities are identified as Dangerous drinkers, compared to 15% of non-Greek participants. Turning to the perceptual data in Table 3, while substantively consistent with the other profiles described, the levels of perceptions of drinking behaviors are very high, although only two of the outcomes indicated a significant difference on perceptions by Greek versus non-Greek members. For instance, Greek members assert their friends drink an average of 6.45 drinks, compared to non-Greek members who believe

their friends typically have 4.94 drinks at a party or bar. The second significant difference between Greek and non-Greek was in their view of the average number of drinks consumed by Athletes – Greeks surmised they drank 6.67 drinks, while non-Greeks thought athletes consumed 5.41 drinks; a significant difference at $p<.001$. Greeks and non-Greeks did not differ on their view of the amount of alcohol consumed by any other student type – both viewed other students as drinking approximately 5.6 drinks, students living on campus drank a little over 6 drinks, and both perceived that other Greek members typically drank 8 drinks at a party or a bar.

Housing: On-Campus Students

There were two significant differences in drinking behaviors among those residing on-campus versus those living off-campus. Of those who drink, students living on-campus were more likely to engage in binge drinking ($p<.10$) than those living off-campus (1.30 times in the prior two weeks compared to 1.16 times); and 30% of on-campus students were identified as a Frequent Heavy Drinker, compared to 26% of those off-campus (significantly different at $p<.05$). Likewise, only one perceptual measure was significantly different amongst on-campus versus off-campus students; on-campus students viewed athletes as heavier drinkers than off-campus students (5.64 drinks compared to 5.27 drinks in the view of off-campus residents). These somewhat anemic results, particular in comparison to number of significant findings in the other profiles, are likely partly the result of the data limitation noted earlier that the housing measure in the CORE survey does not distinguish between those living off-campus (yet with their family), versus those living independently or with other roommates.

Looking at these profiles altogether, certain patterns emerge. First, echoing LaMastro & LaMastro (2007), and consistent with the theoretical basis of the social norms approach (Perkins, 2003), across these various types of individuals in the sample, respondents perceive that others drink more on average than they themselves drink.

Second, perceptions of others' alcohol use compared to actual drinking behavior are **most** accurate when the respondent reports on the drinking behaviors of their friends, while perceptions of others' drinking is **least** accurate with respect to perceptions of drinking behaviors of those belonging to Greek organizations. It may be that survey respondents are more accurate in reporting the behaviors of their friends because they interact and observe their friend's drinking behaviors frequently, while in the case of those associated with Greek organizations, these students may suffer from stereotypical assumptions about high levels of drinking in fraternity and sorority environments. These assumptions are not completely undeserving given that Greek members report consuming more alcohol at a party or bar than the other respondent groups (typically, on average 5.29 drinks) however, the perceived distance between actual use and perceived use is greater for this group than any other. Perception of Greek member use ranges from a low of 7.72 drinks (non-whites perception of Greek average consumption) to a high of 8.29 drinks consumed (as reported by athletes). This equates to a substantial difference between the perception and reality of between 2.43 and 3 drinks.

Third, male, white, athletic and Greek member students have significantly higher numbers of Frequent Heavy Drinkers and Dangerous Drinkers than females, non-whites, non-athletes and non-Greek members. Specifically, 37% of male students in these data are Frequent Heavy Drinkers while 27% are Dangerous Drinkers; among white students, 32% and 17% fall into these categorizations respectively; while 39% of athletes are Frequent Heavy Drinkers and 28% are Dangerous Drinkers. Finally, the majorities (59%) of Greek members were identified as Frequent Heavy Drinkers, while 27% were identified as Dangerous Drinkers. These results confirm prior research studies which appropriately place these students among high risk groups for substance use and abuse (Perkins, 2003). The next section of this report focuses on additional data collected to address the specific questions of members of the consortium.

"Wildcard" Survey Questions and Results

The additional "wildcard" questions were created based on the interests of the nine colleges and universities involved in the Consortium, generated after meeting with the Consortium in October 2007. (As previously noted, the wildcard questions attached in Appendix A). There were six general topical areas including 1) medical amnesty; 2) students who participate in pre-loading/pre-gaming; 3) students in recovery from addiction; 4) places to recreate late at night which didn't emphasize drinking; 5) most effective means to communicate the social norms messages; and 6) credibility of the social norms campaign. After soliciting questions and areas of interest to the consortium, the draft questions were submitted to the participants for further feedback and final review. Ultimately the purpose of the wildcard questions was to solicit additional information not previously garnered, thus, the analysis reported primarily provides frequencies of the survey responses, with the exception of exploring how the degree of campaign credibility may differ by drinking behaviors. The results are detailed by topic in Table 4, and are summarized below.

Medical Amnesty

The wildcard questions addressed issues related to medical amnesty by creating a question that posed a scenario to the respondents. The scenario explored the willingness of the respondent to call for help in a situation where when drinking with a friend, one or both lost consciousness, became sick, or otherwise required medical attention to prevent injury or death. Overall, students were very likely (55%) or somewhat likely (26%) to call for help in these circumstances (N=4184). The remaining 19% (N=772) responded they were very unlikely, somewhat unlikely, or neutral (e.g., neither unlikely nor likely) termed the "ambivalent or wouldn't call" group to seek help. These figures are reflected in the mean response value of this question (Table 4), where higher values indicate the respondents are more likely to seek help. For all respondents, the mean score was 4.21; for those who were ambivalent/wouldn't call, their average score on likely to call was 2.16.

These respondents were then posed a follow-up question to explain why they would hesitate to call campus police or 911. Respondents could choose from 0 to 10 reasons including fear of arrest or disciplinary action (for themselves or their friend), fear of losing a scholarship, embarrassment, and not seeing the illness of their friend as either their business to interfere or not a problem. While 54 respondents did not state a reason for their reluctance, as indicated in Figure 2, the primary concerns stated of those who would not call for help were either they or their friend may be subject to disciplinary action (386 and 368 of respondents, respectively) and/or that they or their friend may be arrested (338 and 381 of respondents stated this). A fair number (209 respondents) felt they would be embarrassed to react in this fashion if the situation were not serious, with 167 feeling this may be embarrassing to their friend. Some respondents replied that this situation was either not their business (114) or that if it were a problem someone else would contact the authorities (130). While 4 out of 5 students indicated they were willing to call for help under these circumstances, nonetheless, the remaining 20% may benefit from additional educational efforts relating the dangers of alcohol use to the point of requiring assistance.

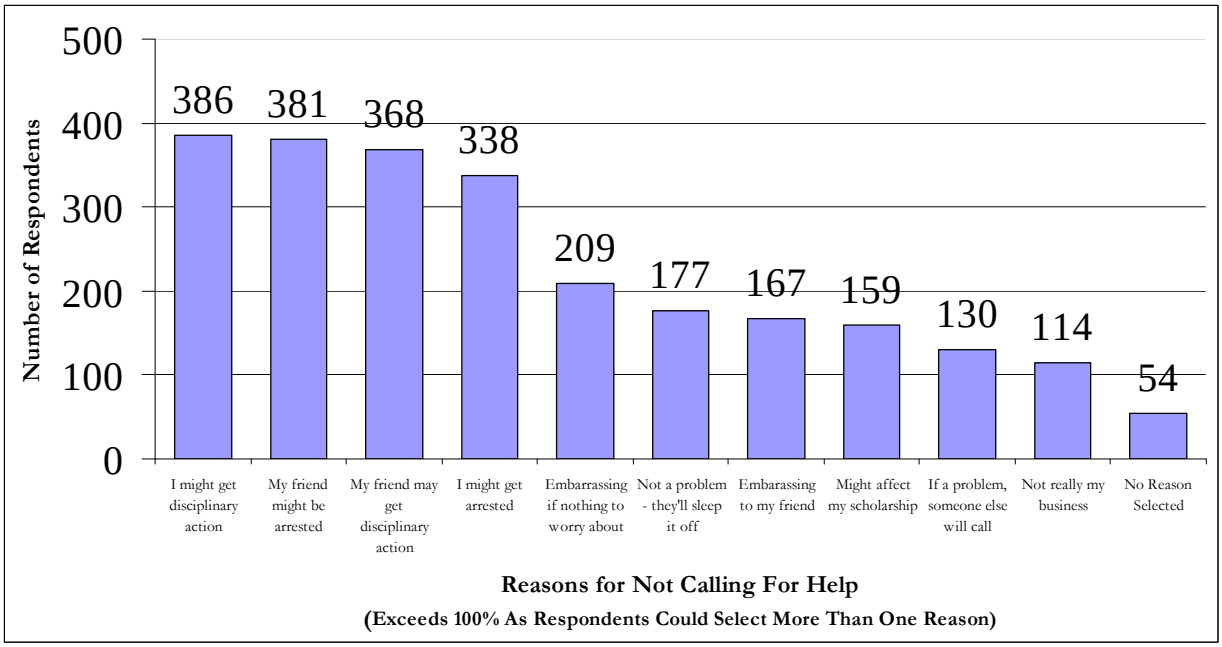

Figure 2: Scenario -- Reasons for Not Calling for Help N=772

All students, regardless of their willingness to call for help, were asked to review the scenario once more, and answer three questions meant to query the likelihood of their calling for help if they had "amnesty" from getting into trouble from 1) school administrators; 2) campus police and 3) police or local law enforcement. Observing the frequency distributions contained in Figure 3, the results indicate that when students were provided the option of calling without fear of getting into trouble, the picture of reluctance shifted. On average, 6% of those who were previously somewhat unlikely or very unlikely to call were now either more neutral or were more likely to call for help, across the three measures of amnesty. Of those previously neutral, 3% were now affirmatively more likely to call if they could be assured of doing so without risk of problems with the school administrators or with campus or local police. The biggest shift is with those very likely to call. Originally 54% of respondents fell into this group but post-amnesty, between 72% and 76% of respondents were now very likely to call for help under these circumstances. Clearly, the reduction of risk solidified their willingness to reach out for assistance.

Those who responded they were _____ to call for help	**Without Amnesty**	**Promised No Trouble With …**			**Average Difference**
		School Admin.	**Campus Police**	**Local Police**	
Somewhat or Very Unlikely	11%	5%	5%	5%	-6%
Neutral	8%	5%	5%	4%	-3%
Somewhat Likely	27%	18%	17%	14%	-11%
Very Likely	54%	72%	72%	76%	19%

Figure 3: Change in Likelihood in Calling for Help If Granted Amnesty N=4,086

As noted in the original scenario without the possibility of amnesty, while a relatively small percentage of students (19%) are unwilling or unsure about calling for help under these circumstances, given the possible tragic consequences of a student doing nothing leads one to conclude from these data that a discussion of amnesty may be worthwhile. In particular, as the impact of amnesty was relatively consistent across these three questions, colleges may wish to focus

first on their own administrative and disciplinary policies with regard to student alcohol use, rather than seek to influence the actions and policies of the campus and/or local police.

Pre-Loading/Pre-Gaming

Five of the wildcard questions were related to the topic of pre-loading/pre-gaming. Pre-loading/Pre-Gaming was defined as drinking prior to attending a later event or other social activity. Students were asked if they had ever participated in pre-loading/pre-gaming, and if so, how many drinks did they consume on the last occasion they pre-loaded. Students were also asked to report their frequency of pre-loading in the prior two week period (never, once, twice, 3 to 5 times, 6 to 9 times and 10 or more times). There were also two perceptual questions (using the same response categories) asking students to report how often they believed their friends on campus participated in pre-loading activities, and how often the average student participated in pre-loading. All cases in the data were used to identify those who had ever pre-loaded. The questions related to self-reported use are based on the sub-sample of only those who reported they had ever pre-loaded, while questions to assess their perceptions of others' preloading behaviors were examined with both the full and sub-samples. Table 4 provides these results.

In these data, 54% of students had ever pre-loaded, and of these 2,225 students, the average number of drinks drunk during the last time they pre-loaded was 4.16 (Table 4). Noting this information categorically rather than numerically, this average is clearly skewed by the 309 individuals (or 14% of the sub-sample) who report drinking more than 5 drinks the last time they pre-loaded; most of the students (51%) reported they consumed between 2 to 3 drinks. Note also that for both the number of times pre-loaded in the prior two weeks and the perceptual questions, the top three response categories were collapsed into three or more times pre-loaded in the prior to weeks due to the small number of cases in these categories. These results indicate that consistent with other measures of perceptions in these data (e.g., average number of drinks students typically

consume at a party), students perceive others participate in pre-loading more than themselves. For instance, of those who had ever pre-loaded, 46% reported they had not pre-loaded in the prior two weeks, yet they perceived their 90% of their friends had pre-loaded at least once. Likewise, students reported the perception that 98% of "average students on campus" had pre-loaded at least once in the prior two week period. Reviewing these results of all students, regardless of whether they had ever pre-loaded, while 68% of students had not pre-loaded in the prior two weeks[11] their perception was that 75% of their friends and 94% of average students pre-loaded at least once in the last two weeks. Thus, consistent with other findings reported, students are more accurate reporting drinking behaviors with respect to those who are closer to them (their friends on campus) than those more distal (the average student on campus).

Campus Community in Recovery

Several of the colleges in the consortium were curious as to the size of the population on campus of people who self-identified as in recovery from alcohol and/or illicit drug use. Further, they questioned whether these individuals attend 12 step self-help groups such Alcoholics Anonymous or Narcotics Anonymous, and if so, did they attend such meetings on campus. Observing the results provided in Table 4, approximately 9% of respondents self-identified as in recovery. Of these students, the majority (45%) had been in recovery for more than 5 years, while a little over a fifth of these students were still in early sobriety at the time of the survey (from 1 day to 1 month). Of those students in recovery, 334 advised whether or not they attend 12 step meetings – resulting in the finding that the vast majority do not; only 10% (or 32 students) attend recovery meetings. Of those who go to meetings, only 5 students attend meetings on campus. These results may reflect the fact that the majority of these respondents had been sober for more than 5 years and

[11] Results not reported, but available upon request.

perhaps attendance at recovery meetings dissipates with longer periods of sobriety. Additionally, attending 12 step meetings is not the only way, or in some cases even the best way, for every individual to treat an addiction.[12]

Finally, one of the consortium schools was particularly interested in identifying the recovery community on campus because they had been unable to find any such students; they wondered if this was related to the population size of their school. Figure 4 indicates that the size of the institution is not necessarily an indicator of the number of students on campus who are recovering from a substance abuse addiction, at least with respect to the students surveyed in these data. The largest number of students in recovery come from the smallest school – 68 of 573 (12%) of respondents from schools with fewer than 2,500 students are in recovery, as are 213 of the 2328 (or 8%) of those surveyed in schools with populations ranging from 5,000 to 9,999.[13]

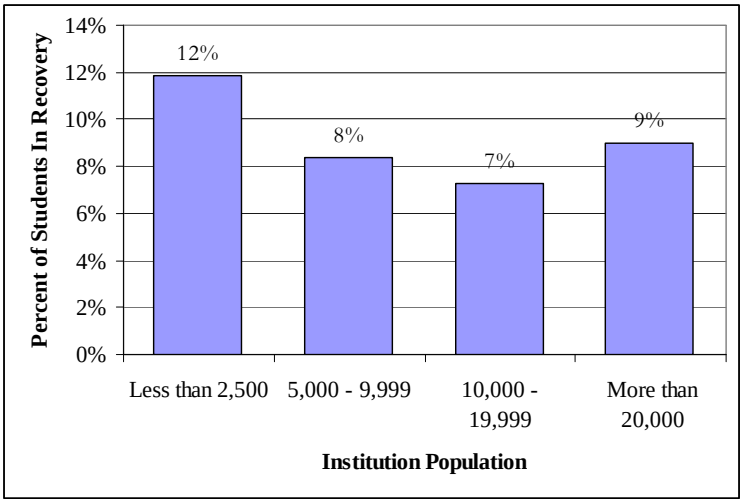

Figure 4: Percent of Students in Recovery by Institution Population N=4,020

[12] Prior studies in this area of research indicate that those in the early stages of their addiction and/or have a low dependence on alcohol (McLatchie & Lomb, 1988), those with psychiatric disorders, and those who are ill at ease with the faith based nature of 12 step groups (Fiorentine, 1999) may not benefit from attendance.

[13] It is important to note, however, that the nine schools in the consortium are not equally distributed by population size. Two schools have populations less than 2,500 students, five schools have populations between 5,000 and 9,999 students, and the largest population institutions have only one school in each category. Further, in one school, the sample size is lean with only 99 cases. Given this, these results are provided solely for informational purposes, and should not be interpreted as indicating a significant difference in the number of recovering individuals among these institutions based on the size of the institution's population.

Places to Recreate Late at Night That Don't Involve Alcohol

Consortium schools also expressed an interest in finding out the types of activities students engaged in which do not involve alcohol or drug use. After some discussion, this topic was narrowed to two questions on the wildcard survey. First, where **could** students go, and second, where **would** they go, to recreate or hang out late at night (e.g., after midnight) that didn't involve drinking. Students were encouraged to "select all that apply" among seven options including 1) bowling alley or pool hall; 2) diner or restaurant; 3) a friends home; 4) movie theater; 5) university sponsored "after-dark" activity such as game nights or midnight basketball; 6) gym or health club; or 7) some other place.[14] Respondents were also offered the option of selecting "there are no places [I would go or I can go] after midnight that don't involve drinking". Most students in the consortium data report there are places they can and would go (on average, reporting there are approximately 3.5 places for can and would go (see Table 4). Further, looking at specific activities (e.g., bowling or a movie) most students report equally about both the places they can go, and would go to, late at night to recreate. For example, 72% of respondents can go to a diner/restaurant, with 69% reporting they would go out to eat. Likewise, while 66% of students' report they can go to a friend's house, and 68% advise they would go to a friend's house late at night, note these are **not necessarily** the **same** individuals reporting both the availability and likelihood of these activities. While it is possible to match each respondent's answers in this way, such analysis for all possible responses on this topical area is beyond the scope of the present report. However, Table 4 provides a look at one small group of people the consortium may be interested in targeting – those who report there are no places they can go to recreate. Of all the students surveyed, 332 stated they had no where to go late at night and of these 332, 78% (or 259) would go if there were activities available

[14] Admittedly, alcohol is available in many of these venues (e.g., bowling alley or restaurant). However, these are places where one can go and engage in an activity (e.g., dining or visiting a friend) where drinking is not necessarily the focus.

(while the remaining 73 respondents assert there are neither places to go, nor interest in going). This is an admittedly small segment of those surveyed (259 of 4225) but equates to 6% overall. Extrapolating these results to entire university populations could indicate a fair number of students who may benefit from educational messages geared toward after-hours alcohol-free activities. In addition, the schools which provide "after-dark" activities may wish to raise awareness of such activities as the percentage of those students who reported they can go, and would go, to participate in such an activity are equivalent (30%).[15]

Communicating Campaign Messages

Another concern of the consortium schools was what among the current modes of information dissemination was regarded by students as the **most** effective way to communicate the social norms messages? Survey respondents were asked to choose one of nine different types of venues including e-mail, text messages, voicemail, in class announcements by the professor, school website, school newspaper, broadcasts on the school television or radio station, flyers and posters, residence hall or other programmatic activities or campus-wide giveaway items (such as t-shirts, pens/pencils, or Frisbees). Table 4 indicates the top four methods of communicating with students are e-mail (29%), campus-wide giveaways (26%), text messages (12%), and flyers and posters (10%). Both voicemail and announcements on the school television or radio broadcasts are viewed as the least effective.[16] While electronic media (e-mail and text messages) account for 41% of student responses on this question, the traditional social norms message venues of giveaways and

[15] Depending on the number of colleges in the consortium which sponsor such events, this may be either good or bad news. If 100% of colleges offer this activity and only 30% of students are aware, then clearly there is a need to communicate more effectively about these events as student have an equal level of interest in attending. Consortium schools can assess this potential by observing the individual results provided by CORE. Further, schools can use the data provided in this report related to the most effective way to communicate the social norms messages as the primary means to communicate such events. The top 5 modes of communication are provided to each school (except for School H due to a data issue) in their individualized school reports in Appendix B.

[16] These results exclude School H because this question was posed on the paper version as a select all that apply rather than asking the respondent to choose a single most effective mode of communication.

flyers/posters closely follow with 36% of respondents. These preferences may cluster by respondents (e.g., younger students may prefer electronic media while older students prefer posters). If true, this may shore up the assertion that campaigns should incorporate a variety of strategies in order to reach broader segments of the student population (Perkins, 2003).

Credibility of the Social Norms Campaign

The final topic explored in the wildcard questions is the credibility of the social norms campaign messages. The questions asked students about how their level of "believability" in the social norms message of "most students on campus choose to have '0 to 4' drinks when they party". Students responded to the question on a 5 point scale of whether they found the message not at all believable, not very believable, neither unbelievable nor believable, believable or very believable. Of the 4,022 students, 1,843 (or 46%) find the statements believable or very believable; 1,566 (39%) find the statement not very believable or not believably at all; and the remaining 613 (15%) students were neutral – finding the statement that students drink 0 to 4 drinks when they party neither believable nor unbelievable. Students were also asked to provide their perspective on the level of belief their friends on campus have regarding this social norms message, and what most students on campus thought. It is interesting to note that the accuracy of perspective for this measure is consistent with other social norms results. Whereas 46% of students believe the message, they perceive 37% of their friends on campus believe and 34% of most students believe the campaign message. In sum, the greater social distance, the less accurate perceptions become.

For those respondents who did not find the statement believable, they were asked why. Students had a choice of up to six of the following reasons: 1) I don't trust the data because I feel it may have been fabricated; 2) I don't trust the data because I feel it is based on a selected sample of students who don't drink; 3) I don't trust the data because I feel it is what University administration wants me to believe ; 4) my personal experiences tell me otherwise; 5) my friend's experiences tell

me otherwise; and 6) my observations of students in general tell me otherwise. Of the 1,566 students who did not find the message credible, students reported an average of 3.09 reasons for their disbelief. Figure 5 provides these results.

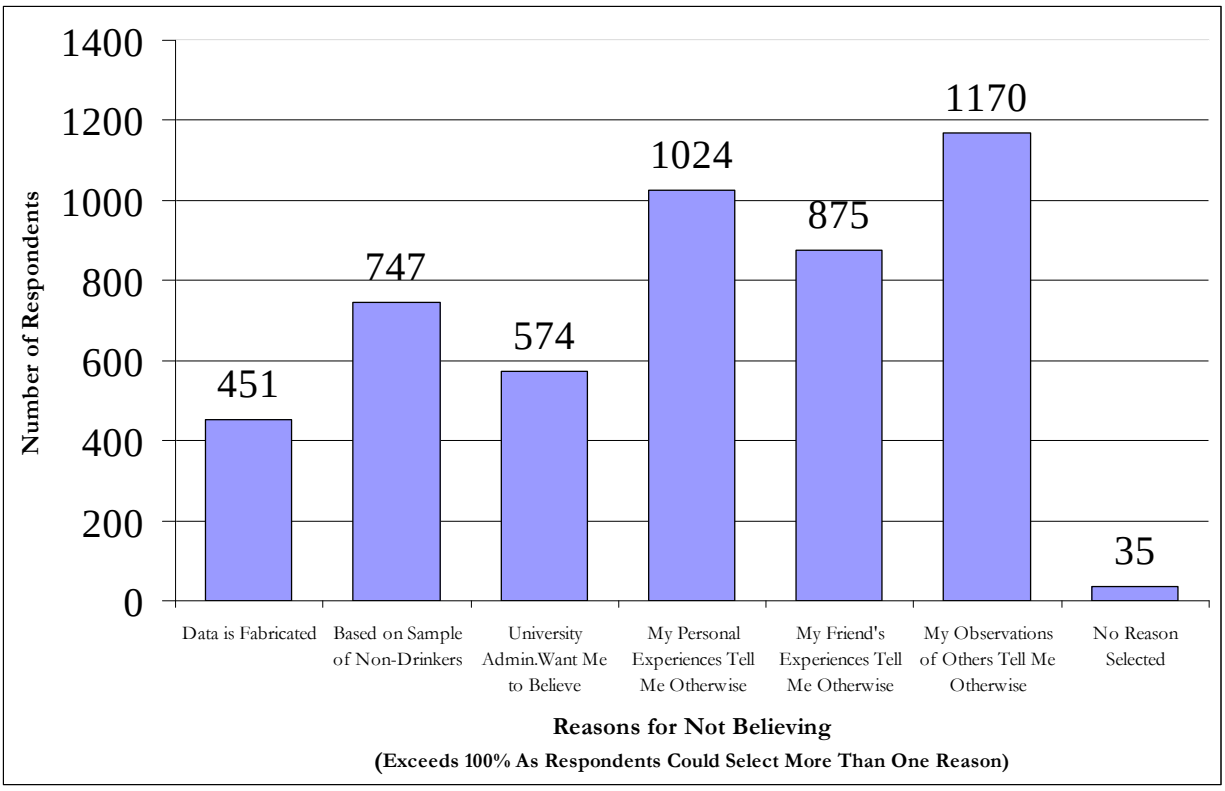

Figure 5: Reasons for Not Believing Campaign Message N=1,566

Of the 1,566 respondents who doubt the veracity of the message, 35 did not provide a reason. However, the issue of credibility is primarily attributable to the student's personal experiences (1,024 students selected this reason) and their observations of students in general (1,170 respondents). Even so, a not insubstantial number of students questioned the campaign message based on the source (451 students had this concern) and validity of the data (747 students). Fortunately, these are areas which can be targeted directly by the consortium colleges in their campaigns. First, as noted by LaMastro & LaMastro, 2007, schools can hold small informal sessions, allowing time for discussion with students which focus on dispelling misconceptions about the integrity of the data. Second, the consortium schools can use the results provided in this report,

particularly with regard to results based on the sub-sample of those who drink in their campaign. These sub-sample results, excluding the non-drinkers, patterned consistently with the overall sample, although at somewhat higher rates of use (i.e., students who drink consumes, on average, 1 drink more than the sample which includes students who don't drink (4.39 drinks compared to 3.40 drinks)). Nonetheless, those who drink remain substantively within the range of 0 to 4 drinks typically consumed at a party or a bar (See Table 2) and this information can be used as part of the campaign strategy. Finally, as noted in Chapter 1, the addition of the believability questions to the wildcard survey allowed for an analysis of the respondent's level of belief compared to their drinking behaviors to ascertain if their view of the credibility of the social norms campaign varies by behavior. The results of this inquiry follow.

Beliefs and Drinking Behaviors – Are they Related?

Based on responses to the question of how believable students found the statement "most students have '0 to 4' drinks … when they party" and in accordance with the procedure outlined in Polonec et al., (2006) respondents were categorized into one of three belief groups: 1) the *Believers* (those who believe the social norms campaign messages more than other students); 2) the *Non-Believers* (those who believe the social norms campaign messages **less** than other students); and 3) the *Looking Glass* (those who believe the messages the same as other students). These group memberships, based on level of belief, were compared to two self-reported measures of drinking behaviors – average number of drinks at a party or bar and of those who drink, the number of times binged in the prior two weeks (see Table 5).

The first step in this analysis was to conduct a t-test comparing the means of the two outcomes 1) the average number of drinks typically consumed at a party or bar and 2) of those who drink, the number of times binged in the prior two weeks; cross-referenced by belief groups. The resulting t-test of differences indicate there are significant differences between the groups on the

both outcomes (F=9.53 for average number of drinks and F=12.74 for number of times binged, both significant at p<.001). However, the t-test does not tell us **which** of the groups statistically differ from the other. Thus, the second step is to conduct an analysis of variance (ANOVA) test between the groups. Looking at the first outcome, we see that the average number of drinks of the non-believers of 3.06, which is significantly different (p<.001) from those in the looking glass group with an average of 3.46 drinks typically consumed. Likewise, for number of times binged in the last two weeks, non-believers are different from the looking glass group, (although not as strong at p<.10), binging less frequently (.88 compared to 1.33). Believers do not significantly differ from either of the two groups.

In addition to testing for the differences between these groups, the last row in Table 5 provides a measure of association (Eta^2) which enumerates the strength of the relationship between the outcomes of average number of drinks and number of times binged and belief group, indicated by the amount of variance explained. Eta^2 scores fall between 0 and 1 and those between 0 and .20 generally indicate a weak relationship. The Eta^2 scores for both outcomes (.48% and .84%, respectively) indicate that less than 1% of the variation in their association in one of the three belief groups is explained by their self-reported drinking behavior; a very weak association. While these relationships are weak, the existence of differences among these belief groups by drinking behaviors (as indicated by the t-test) should continue to be explored. Given that males, white students, Greek members, and athletes are generally at higher risk for increased alcohol use and abuse, it is likely that these results would differ if these characteristics were accounted for in the results. Future analysis could examine these (and other outcomes) available in these data in a multivariate regression to ascertain if any of the self-reported drinking behaviors influence their belief in the campaign.

Description of Wildcard Question Data Contained in Summary School Reports

Summary reports of selected wildcard question data by school are provided in Appendix B. The information selected based on three factors. First, if the number of respondents in a topical area or on a particular question were too few to report results that were either meaningful and/or to ensure the confidentiality of the individual school results, the topic area was excluded. This is the case with respect to the recovery community on campus. Recall there were 361 self-identified recovering individuals in the combined consortium sample, and of these, only 10% attended 12 step meetings. Providing the number of sober respondents and their participation in meetings by individual school will not produce results that can be generalized to the school as whole, as there would likely be only a few cases per school on these measurers. Second, the schools received both data and printouts of their individual survey results, thus there is no need to report all of the results individually by school in this document. Third, particular results were chosen based on those aspects of the overall findings that were notably salient and/or where it was possible that the individual school findings, while substantively similar to the overall results, varied in interesting ways. For all of these reasons the individual school reports including the following from five of the six topical areas.

The means and frequency distributions of two of the medical amnesty questions -- how likely the respondent was to call for help, and if assured they would not be in trouble with the school administration, how likely would they then be to call? These results are limited to those respondents who answered both questions, and differences in these percentages indicate the shift potential for schools implementing a medical amnesty policy. For pre-loading, the sample is limited only to those who pre-load, and reports the mean number of drinks the prior time pre-loaded (for those who report drinking at least 1 drink the last time they pre-loaded), and the numbers of respondents who did not preloaded and those who pre-loaded once in the prior two week period. Reports related

to places to recreate included the average number of places respondents reported they could and would go to, and of those who reported there are no places to recreate at night without drinking, reporting the number of those individuals who would go to such a venue, if one were available. In terms of effective campaign communications, the top five responses were reported. Finally, results related to credibility of the campaign messages are two-fold. First, providing the percentage distribution of how believable is the message '0 to 4 drinks' by school (also available in the school descriptives in Table 1). Second, for those who don't find the campaign message believable, the individual school results report the average number of reasons and the top three reasons for their disbelief.[17] Recommendations based on the results discussed in this report and a brief conclusion follows in Chapter 3.

Chapter III: Recommendations and Conclusion

Recommendations

Given the findings related to the particular respondent groups (males, those under 21 years old, athletes, Greek members and those housed on-campus, one recommendation from this study, (and echoing LaMastro & LaMastro (2007)), is to consider incorporating the "Small Groups Norms-Challenging Model" (SGNM) (Far & Miller, (2003) into the social norms campaigns at the consortium schools. Particular concerns are related to the outcomes which identify the Frequent Heavy and the Dangerous Drinkers within these student populations. Recall that in the case of the Frequent Heavy Drinker, the results were limited to those who drink. Thereafter, the analysis separated the respondents into one of two categories -- those who binged 2 or more times in the prior two weeks (the Frequent Heavy Drinker) versus those who had not. Looking at the results of those who drink, 37% of males, 32% of white students, 39% of athletes, 59% of Greek members

[17] This differs from the original construction of the question by excluding those who in the neutral group and focusing on those who may be the most challenging to influence.

and 30% of those residing on-campus were identified as Frequent Heavy Drinkers. Likewise, looking at all cases in the sample, Dangerous Drinkers were those who admitted they typically consumed 7 or more drinks at a party or bar with substantial percentages of male (27%), white (17%), athletic (28%) and underage (17%) student populations identified.

While these are admittedly very broad categories, there may still be room for a targeted intervention such as that employed in the SGNM. SGNM essentially provides intensive (e.g., 45 minute) forums or discussions with small groups of students such as in classrooms, those residing in a fraternity or sorority house and/or an athletic team. Several strategies are outlined in pages 115-118 in Far & Miller, 2003, but essentially SGNM seeks to approach different types of students and utilizing interactive interventions including discussion groups facilitated with a peer leader, a presentation of a series of social norms messages, and group exercises intended to engage participants. In their study of SGNM, while disadvantaged by small sample size, Far & Miller, 2003 employed a pre and post-test research design with a comparison group, and their results indicate that these types of targeted efforts can be effective. While the consortium colleges may be presently engaged with this type of program, there may still be utility in the approach of a more intensive social norms model that allows for interaction between the facilitator and the student. As previously noted, this type of intervention strategy may also address the student concerns about the credibility of the data for the campaign overall.

Second, the results of the scenario questions indicate that, if not already doing so, colleges in the consortium should consider establishing a medical amnesty policy for students who call for help when someone they are drinking with becomes ill to the point of passing out or otherwise requiring medical attention. Medical amnesty (also known as "good Samaritan") policies have been implemented at a number of universities including the University of Pennsylvania, University of North Carolina in Chapel Hill, and Cornell University. Even among those predisposed to call for

help, a substantial number of respondents in this survey shifted from "somewhat" likely to "very" likely to call by the theoretical assurance they would not get into trouble with the administration. Ultimately, this could be the difference between life and death.

Third, the consortium should continue to pool their respect survey data, analysis, and reporting capacities. As noted in Chapter 2, this study was strengthened by the ability to combine the respondent survey data across these schools. The larger sample size allowed for the analysis of self-reported drinking behaviors and perceptions of behaviors by a variety of respondent characteristics. With a smaller sample size, this likely would not have been possible – particularly with respect to those distinguishing athletes and Greek members. By grouping the nine schools together, there were 150 athletes and 172 Greek members in the analysis; approximately 4% and 5% of the sample pool, respectively. Had each school attempted to analyze the athlete and Greek member groups individually, even the school with the largest number of respondents (School I with 845 students) would not have had the minimum number of cases (i.e., 50 cases) to reliably conduct analyses which incorporate measures of statistical significance.

Conclusion

The findings of these consortium data confirm existing knowledge about college student drinking behaviors, and their perceptions of others' behaviors, as well as expand into less traversed research areas of medical amnesty, pre-loading drinking activities, and questions concerning the overall credibility of the social norms campaign. Further, these data identify, from the student's perspective, the best means to communicate campaign messages, give a sense of the scope of recovery community on campus, and provide a view into where students would and could choose to go late at night where drinking is not the primary activity. These data, rich in detail and made stronger by the partnership between these colleges, provide sustenance for future efforts in the education and prevention of substance abuse.

Table 1. Sample Descriptives by School

		School ID								
2008 Data	All	A	B	C	D	E	H	I	J	K
Number of Respondents	4234	618	497	588	99	326	522	845	106	633
					Demographics					
% Female	63%	68%	66%	55%	61%	72%	66%	58%	72%	62%
% Racial/Ethnic Minority	30%	23%	21%	15%	64%	34%	14%	45%	32%	43%
Under Age 21	55%	63%	57%	47%	65%	50%	60%	56%	43%	52%
Age 21 to 24	34%	35%	40%	44%	33%	38%	14%	38%	43%	27%
Age 25 and older	11%	2%	3%	9%	2%	12%	26%	6%	14%	21%
					Class and Student Status					
Freshman	27%	28%	19%	22%	33%	22%	44%	23%	19%	32%
Sophomore	27%	24%	24%	17%	24%	21%	40%	24%	22%	40%
Junior	22%	23%	32%	29%	18%	26%	0%	28%	29%	12%
Senior	20%	24%	24%	31%	20%	30%	0%	23%	30%	8%
Non-Degree, Professional, Other	4%	1%	1%	1%	5%	1%	16%	2%	0%	8%

	School ID									
	All	A	B	C	D	E	H	I	J	K
Full Time Student	91%	99%	100%	96%	95%	91%	72%	95%	99%	80%
Live On-Campus	47%	69%	75%	48%	60%	38%	15%	55%	41%	19%
Self-Identified Affiliations										
Focused only on Academics	55%	36%	53%	52%	26%	66%	62%	49%	64%	77%
Greek	5%	9%	5%	5%	1%	3%	4%	5%	3%	2%
Athlete	4%	6%	6%	5%	6%	4%	6%	3%	3%	3%
SGA Member, Other Leader or Ambassador	8%	11%	11%	6%	14%	7%	6%	10%	7%	4%
Scholarship (Non-Athletic)	14%	22%	14%	12%	36%	8%	15%	15%	13%	8%
Univ. Club Member	14%	16%	11%	20%	17%	12%	7%	18%	10%	6%
Abstainers from Alcohol ("Never Drink") and Believability of Social Norms Messages										
Self-Identified as Non-Drinkers	25%	21%	19%	19%	33%	26%	29%	26%	24%	31%
Believe	46%	47%	30%	38%	48%	41%	50%	53%	46%	54%
Don't Believe	39%	38%	56%	47%	35%	42%	33%	31%	43%	34%
Neutral – neither Believe nor disbelieve	15%	15%	14%	15%	17%	17%	17%	16%	11%	12%

Table 2. Self-Reported Drinking Behaviors Overall and by Respondent Characteristics

	Average number of drinks at party or bar		Average number of drinks per week		Of those who drink, Number of Times Binged (5+ drinks) Last 2 weeks		Of those who drink, Frequent Heavy Drinker (Binged 2 or more times last 2 weeks)		Dangerous Drinker (Consuming 7 or more drinks at party or bar)	
	Range 0 to 15		Range 0 to 105		Range 0 to 14		Range 0 to 1		Range 0 to 1	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
All Respondents	4182	3.40 (3.14)	4196	4.78 (9.87)	4167	.93 (1.82)	4167	.21 (.41)	4182	.15 (.36)
Those Who Drink	3146	4.39 (2.94)	3158	6.29 (10.92)	3140	1.22 (1.99)	3140	.28 (.45)	3146	.20 (.40)
By Respondent Characteristics[++]										
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
All Respondents[++]	3678	3.41 (3.06)	3689	4.83 (9.67)	3693	.94 (1.78)	3693	.22 (41)	3678	.15 (.36)
Those Who Drink[++]	2792	4.37 (2.84)	2801	6.30 (10.64)	2805	1.22 (1.95)	2805	.28 (.45)	2792	.19 (.40)
Gender										
Male	1362	4.20** (3.73)	1365	7.41** (13.35)	1028	1.68** (2.34)	1028	.37** (.48)	1362	.27** (.44)
Female	2297	2.94 (2.47)	2297	3.33 (6.15)	1758	.96 (1.63)	1758	.23 (.42)	2297	.08 (.27)
Race										
White vs.	2471	3.80** (3.05)	2473	5.77** (10.23)	2016	1.35** (1.97)	2016	.32** (.46)	2471	.17** (.38)
Non-White	1179	2.59 (2.93)	1180	2.94 (8.19)	763	.90 (1.88)	763	.20 (.40)	1179	.10 (.30)

Differences are statistically significant ** p<.001, * p<.05, + p<.10

[++]Excludes Observations from School H

	Average number of drinks at party or bar		Average number of drinks per week		Of those who drink, Number of Times Binged (5+ drinks) Last 2 weeks		Of those who drink, Frequent Heavy Drinker (Binged 2 or more times last 2 weeks)		Dangerous Drinker (Consuming 7 or more drinks at party or bar)	
	Range 0 to 15		Range 0 to 105		Range 0 to 14		Range 0 to 1		Range 0 to 1	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Age										
Under 21	1979	3.30* (3.21)	1992	3.96** (8.07)	1401	1.20 (1.87)	1401	.28 (.45)	1979	.17* (.37)
21 and Over	1664	3.56 (2.87)	1664	5.94 (11.27)	1377	1.26 (2.04)	1377	.28 (.45)	1664	.13 (.34)
Affiliations										
Athlete	150	4.57** (3.76)	150	7.65* (12.60)	125	1.69* (2.29)	125	.39* (.49)	150	.28** (.45)
vs. Non-Athlete	3387	3.39 (3.00)	3396	4.77 (9.57)	2591	1.21 (1.95)	2591	.28 (.45)	3387	.15 (.35)
Greek Member	172	5.29** (3.19)	173	11.88** (13.99)	160	2.70** (2.79)	160	.59** (.49)	172	.27* (.44)
Vs. Non-Greek	3365	3.34 (3.01)	3373	4.53 (9.32)	2556	1.14 (1.86)	2556	.26 (.44)	3365	.15 (.35)
Housing										
On campus	1861	3.46 (3.02)	1864	4.91 (9.70)	1414	1.30+ (1.99)	1414	.30* (.46)	1861	.16 (.36)
Off Campus	1799	3.37 (3.02)	1799	4.81 (9.70)	1375	1.16 (1.91)	1375	.26 (.44)	1799	.14 (.35)

Differences are statistically significant ** p<.001, * p<.05, + p<.10

[++]Excludes Observations from School H

Table 3. Perceptions of Drinking Behaviors Overall and By Respondent Characteristics

	Average number of drinks Your Friends consume at party or bar		Average number of drinks Other Students In General consume at party or bar		Average number of drinks Intercollegiate Athletes consume at party or bar		Average number of drinks Greek Members consume at party or bar		Average number of drinks On-Campus Students consume at party or bar	
	Range 0 to 15		Range 0 to 15		Range 0 to 15		Range 0 to 15		Range 0 to 15	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
All Respondents	4176	4.97 (3.11)	4163	5.60 (2.45)	4151	5.42 (3.28)	4120	7.85 (3.27)	4118	6.14 (2.87)
Those Who Drink	3144	5.70 (2.94)	3143	5.85 (2.41)	3132	5.70 (3.27)	3112	8.21 (3.14)	3109	6.44 (2.80)
By Respondent Characteristics[++]										
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
All Respondents[++]	3674	4.98 (3.02)	3668	5.61 (2.41)	3664	5.46 (3.23)	3633	7.93 (3.22)	3627	6.19 (2.81)
Those Who Drink[++]	2789	5.68 (2.84)	2789	5.83 (2.35)	2781	5.71 (3.23)	2762	8.26 (3.09)	2759	6.46 (2.74)
Gender										
Male	1361	5.58** (3.73)	1357	5.66 (2.46)	1358	5.63* (3.45)	1348	7.95 (3.31)	1340	6.13 (2.84)
Female	2295	4.63 (2.73)	2293	5.58 (2.37)	2290	5.35 (3.10)	2269	7.93 (3.16)	2270	6.24 (2.79)
Race										
White vs.	2467	5.27** (2.99)	2463	5.68* (2.27)	2462	5.53+ (3.09)	2446	8.05* (3.05)	2443	6.23 (2.65)
Non-White	1181	4.38 (3.01)	1179	5.46 (2.66)	1178	5.30 (3.51)	1163	7.72 (3.53)	1159	6.15 (3.12)

Differences are statistically significant ** p<.001, * p<.05, + p<.10

[++]Excludes Observations from School H

	Average number of drinks Your Friends consume at party or bar		Average number of drinks Other Students In General consume at party or bar		Average number of drinks Intercollegiate Athletes consume at party or bar		Average number of drinks Greek Members consume at party or bar		Average number of drinks On-Campus Students consume at party or bar	
	Range 0 to 15		Range 0 to 15		Range 0 to 15		Range 0 to 15		Range 0 to 15	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Age										
Under 21	1979	5.08* (3.14)	1976	5.75** (2.43)	1975	5.65** (3.31)	1963	8.11* (3.20)	1957	6.39** (2.83)
21 and Over	1661	4.88 (2.86)	1658	5.44 (2.36)	1657	5.23 (3.13)	1639	7.74 (3.21)	1638	5.99 (2.76)
Affiliations										
Athlete	149	6.29** (3.12)	150	6.14* (2.35)	150	6.37* (3.29)	149	8.29 (2.75)	149	6.56 (2.89)
vs. Non-Athlete	3386	4.95 (2.97)	3381	5.59 (2.39)	3379	5.43 (3.22)	3350	7.95 (3.21)	3346	6.18 (2.77)
Greek Member	172	6.45** (2.70)	172	5.59 (2.22)	172	6.67** (3.31)	171	8.00 (2.88)	169	6.35 (2.66)
Vs. Non-Greek	3363	4.94 (2.99)	3359	5.61 (2.40)	3357	5.41 (3.21)	3328	7.96 (3.21)	3326	6.18 (2.79)
Housing										
On campus	1860	5.06 (2.97)	1857	5.62 (2.33)	1859	5.64* (3.25)	1844	7.88 (.3.11)	1836	6.14 (2.65)
Off Campus	1797	4.91 (3.08)	1794	5.59 (2.48)	1790	5.27 (3.21)	1774	8.00 (3.31)	1775	6.26 (2.96)

Differences are statistically significant ** p<.001, * p<.05, + p<.10

[++]Excludes Observations from School H

Table 4: Wildcard Descriptives Overall

	N	Freq.	Valid %[18]	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help? *Higher Values = More Likely to Call for Help*	4184			1 to 5	4.21 (1.12)
Very Likely		2301	55%		
Somewhat Likely		1111	26%		
Neither Likely nor Unlikely*		329	8%		
Somewhat Unlikely*+		237	6%		
Very Unlikely*+		206	5%		
***Those Ambivalent OR Wouldn't Call**	772			1 to 3	2.16 (.82)
Number of Reasons They Wouldn't Call	772			0 to 10	3.14 (2.19)
+Those who Wouldn't Call	443			1 to 2	1.53 (.50)
Number of Reasons They Wouldn't Call	443			0 to 10	3.30 (2.26)
If you could not get into trouble with … how likely would you call for help?					
School Administration					
All Respondents	4092			1 to 5	4.54 (.90)
Ambivalent or Wouldn't Call	767				3.43 (1.30)
Wouldn't Call	439				3.07 (1.43)
Campus Police					
All Respondents	4090			1 to 5	4.54 (.91)
Ambivalent or Wouldn't Call	765				3.48 (1.33)
Wouldn't Call	439				3.13 (1.45)
Police or Local Law Enforcement					
All Respondents	4096			1 to 5	4.59 (.89)
Ambivalent or Wouldn't Call	764				3.63 (1.35)
Wouldn't Call	437				3.30 (1.48)
Pre-Gaming/Pre-Loading					
Ever Pre-loaded?	4138			0 to 1	.54 (.50)
Yes		2231	54%		
No		1907	46%		
Of those who pre-load … Number drinks the last time pre-loaded	2178			1 to 99	4.16 (5.71)
1 Drink		202	9%		
2 to 3 Drinks		1115	51%		
4 to 5 Drinks		552	25%		
More than 5 Drinks		309	14%		

[18] Valid percent excludes cases with missing data. May not total 100% due to rounding

	N	Freq.	Valid %[18]	Range	Mean (SD)
Of those who Pre-load:					
In the last two weeks, how often have …					
You Pre-loaded	2225				
Never		1033	46%		
Once		562	25%		
Twice		343	15%		
Three or More Times		287	13%		
Your Friends on Campus Pre-loaded	2223				
Never		222	10%		
Once		417	19%		
Twice		703	32%		
Three or More Times		881	39%		
Average Student on Campus Pre-loaded	2219				
Never		35	2%		
Once		285	13%		
Twice		758	34%		
Three or More Times		1141	51%		
All Cases					
In the last two weeks, how often have …					
Your Friends on Campus Pre-loaded	4136				
Never		1030	25%		
Once		950	23%		
Twice		1055	26%		
Three or More Times		1101	26%		
Average Student on Campus Pre-loaded	4133				
Never		230	6%		
Once		766	18%		
Twice		1461	35%		
Three or More Times		1676	41%		
Campus Community in Recovery					
Are you in recovery from addiction to alcohol or illicit drug use?	4020			0 to 1	.09 (.29)
Yes		361	9%		
No		3659	91%		
Of those in Recovery:					
How long sober?	325				
1 Day to 1 Week		41	13%		
2 Weeks to 1 Month		30	9%		
1 to 6 Months		40	12%		
7 Months to 1 Year		22	7%		
1 to 3 Years		30	9%		
3 to 5 Years		16	5%		
More than 5 Years		146	45%		

	N	Freq.	Valid %[18]	Range	Mean (SD)
Attend 12 Step self-help meetings?	334			0 to 1	.10 (.29)
Yes		32	10%		
No		302	90%		
Of those in Recovery & Attend Meetings:					
Attend meetings on campus?	31			0 to 1	.16 (.37)
Yes		5	16%		
No		26	84%		
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	4225			0 to 8	3.45 (1.89)
Number of places I WOULD go	4225			0 to 8	3.54 (1.97)
Bowling/Billiards					
Can go		1946	46%		
Would go		2173	51%		
Diner/Restaurant					
Can go		3019	72%		
Would go		2927	69%		
A Friends Home					
Can go		2798	66%		
Would go		2857	68%		
Movie Theatre					
Can go		2498	59%		
Would go		2717	64%		
University "After-Dark" Event					
Can go		1257	30%		
Would go		1260	30%		
Gym/Health Club					
Can go		1395	33%		
Would go		1423	34%		
Other					
Can go		1328	31%		
Would go		1399	33%		
There are NO places I CAN go	332	332	8%		
Of those who report no places to go, Number who would go if there were places		259	78%		
No places to go, but wouldn't go even if there were places		73	22%		
There are NO places I WOUD go	196	196	5%		
Of those who wouldn't go those who report no places to go		123	63%		
Of those who wouldn't go, those who report there are places to go		73	37%		

	N	Freq.	Valid %[18]	Range	Mean (SD)
Communicating Campaign Messages					
What is the most effective way to communicate social norms messages?[++]	3580				
E-mail		1054	29%		
Text Messages		417	12%		
Voicemail		12	<1%		
Announcements by Professors in Class		246	7%		
School Website		149	4%		
School Newspaper		211	6%		
School TV or Radio		44	1%		
Flyers and Posters		346	10%		
Residence Hall or Other Program Activities		182	5%		
Campus-Wide Giveaways		919	26%		
[++]Excludes 522 cases from School H					
Campaign Credibility					
How believable is the statement "most students on campus have '0 to 4' drinks? *Higher Values = More Believable*					
You Believe	4022			1 to 5	3.07 (1.20)
Believable/Very Believable		1843	46%		
Not at all Believable/Not Very Believable		1566	39%		
Neither Unbelievable nor Believable		613	15%		
Your Friends Believe	4083			1 to 5	2.86 (1.19)
Believable/Very Believable		1521	37%		
Not at all Believable/Not Very Believable		1866	46%		
Neither Unbelievable nor Believable		696	17%		
Most Students Believe	4066			1 to 5	2.80 (1.16)
Believable/Very Believable		1387	34%		
Not at all Believable/Not Very Believable		1982	49%		
Neither Unbelievable nor Believable		697	17%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	1566			0 to 6	3.09 (1.65)

Table 5 Drinking Behaviors by Belief Group Membership

	Average number of drinks at party or bar		Of Those Who Drink, Number of Times Binged (5+ drinks) Last 2 weeks	
	Range 0 to 15		Range 0 to 14	
By Belief Group Membership[19]	N	Mean (SD)	N	Mean (SD)
Believers	180	3.31 (3.22)	132	1.37 (2.41)
Non-Believers	841	3.06 [a] (2.67)	648	.88 [b] (1.64)
Looking Glass	2920	3.46 (3.14)	2216	1.33 (2.08)
F Statistic Obtained		9.53**		12.74**
Variation Explained by Group Differences – *Eta*^{2}		.48%		.84%

Differences are statistically significant ** p<.001

[a] Non-Believers are significantly different than those in the Looking Glass Group at p<.001
[b] Non-Believers are significantly different than those in the Looking Glass Group at p<.10

Believers: Those who believe the social norms campaign messages more than other students
Non-Believers: Those who believe the social norms campaign messages less than other students
Looking Glass: Those who believe the messages the same as other students

[19] Groups were categorized consistent with Polonec, et al., 2006

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Appendix A: Wildcard Questions Added to CORE Survey

For the next five (5) questions, please respond to the following scenario: You and someone you are socializing with are drinking alcohol and either one or both of you are underage. One of you drinks to the point of losing consciousnesses, getting sick, or otherwise needing medical assistance in order to prevent injury or death.

1. How likely are you to call campus police or 911 in order to get help?

    - Very Likely
    - Somewhat Likely
    - Neither likely or unlikely
    - Somewhat Unlikely
    - Very Unlikely

2. If you are somewhat unlikely, very unlikely or are neither likely nor unlikely to seek assistance, why wouldn't you call for help? (**Select all that apply**)

    - I might get arrested by police
    - The person I am socializing with might get arrested by the police
    - I might be subject to disciplinary action by the school administration
    - The person I am socializing with might be subject to disciplinary action by the school administration
    - It might affect my scholarship funding (or eligibility for scholarship funding)
    - It would be embarrassing if I called for help, and it turned out to be nothing to worry about.
    - It might be embarrassing my friend
    - It isn't really any of my business
    - It isn't really a problem – they'll sleep it off.
    - I'm sure if it is a problem someone else will call.

3. Thinking again about this scenario -- if you knew that **neither** of you would get into trouble with the **school administration**, how likely are you to call campus police nor 911 in order to get help?

    - Very Likely
    - Somewhat Likely
    - Neither likely or unlikely
    - Somewhat Unlikely
    - Very Unlikely

4. If you knew that neither of you would get into trouble with **campus police**, how likely are you to call campus police or 911 in order to get help? .

    - Very Likely
    - Somewhat Likely
    - Neither likely or unlikely
    - Somewhat Unlikely
    - Very Unlikely

5. Finally, if you knew that neither of you would get into trouble with the **police or local law enforcement**, how likely are you to call campus police or 911 in order to get help?

   - o Very Likely
   - o Somewhat Likely
   - o Neither likely or unlikely
   - o Somewhat Unlikely
   - o Very Unlikely

6. Think back over the **last two weeks**. How often have **you** participated in **pre-loading/pre-gaming** (defined as drinking prior to attending a later event or other social activity)?

   - o Never
   - o Once
   - o Twice
   - o 3 to 5 times
   - o 6 to 9 times
   - o 10 or more times

7. Think back over the **last two weeks**. How often do you think **the average student on your campus** participates in pre-loading/pre-gaming?

   - o Never
   - o Once
   - o Twice
   - o 3 to 5 times
   - o 6 to 9 times
   - o 10 or more times

8. Think back over the **last two weeks**. How often do you think **your friends on campus** participate in pre-loading/pre-gaming?

   - o Never
   - o Once
   - o Twice
   - o 3 to 5 times
   - o 6 to 9 times
   - o 10 or more times

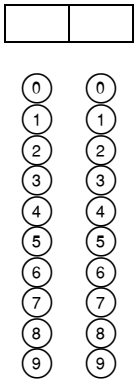
9. Have you ever participated in pre-loading/pre-gaming?

   - o Yes
   - o No

10. If yes, think about the **last time you participated in pre-loading/ pre-gaming** …

    How **many drinks** did you have **while you were pre-loading/pre-gaming**, prior to attending a later event/social activity? **A drink is defined as a 12 oz. can of beer, a 6 oz. glass of wine or a wine cooler, a shot (1.50 oz.) of hard liquor or a single mixed drink made with one shot of liquor.**

    (If less than 10, code answers as 00, 01, 02, etc)



We are trying to identify if there are students on campus who are recovering from an addiction to alcohol or illicit drug use. ***Reminding you that this survey is anonymous and cannot be traced back to you****, please answer the following questions:*

11. Are you sober or in recovery from alcohol or drug abuse?

    - Yes
    - No (If no, skip to question 15)

12. How long have you been sober or in recovery?

    - 1 day to 1 week
    - 2 weeks to 1 month
    - 1 to 2 months
    - 2 months to 3 months
    - 4 to 6 months
    - 7 to 9 months
    - 10 months to 1 year
    - 1 to 3 years
    - 3 to 5 years
    - More than 5 years

13. Do you attend 12-step self-help meetings such as Alcoholics Anonymous (AA) and/or Narcotics Anonymous (NA)?

    - Yes
    - No

14. If yes, do you attend meetings on campus?

    - Yes
    - No

15. You've probably seen the posters and other materials the university distributed about the drinking behaviors of students on your campus. How believable do **you** think the statement is that "most students on campus choose to have '0 to 4' drinks when they party"?

    - Not at all believable
    - Not very believable
    - Neither unbelievable nor believable
    - Believable
    - Very believable

16. How believable do you think **most students** on campus think the statement is that "the majority of students on campus choose to have '0 to 4' drinks when they party"?

    - Not at all believable
    - Not very believable
    - Neither unbelievable nor believable
    - Believable
    - Very believable

17. How believable do you think **your friends on campus** think the statement is that "the majority of students on campus choose to have '0 to 4' drinks when they party"?

    - Not at all believable
    - Not very believable
    - Neither unbelievable nor believable
    - Believable
    - Very believable

18. If you feel that the messages are not at all believable or not very believable, what are the main reasons you don't believe them? (**Select all that apply**)

    - I don't trust the data because I feel it may have been fabricated
    - I don't trust the data because I feel that it is based on a selected sample of students who don't drink
    - I don't trust the data because I feel it is what University administration wants me to believe
    - My personal experiences tell me otherwise
    - My friend's experiences tell me otherwise
    - My observations of students in general tell me otherwise.

19. What places **CAN** you currently go late at night (i.e., after midnight) that don't involve drinking?(**Select all that apply**)

    - Bowling alley or Billiards (Pool hall)
    - Diner/Restaurant
    - A Friend's Home
    - Movie Theater
    - University Sponsored "After-dark" activities (game nights, midnight basketball, etc.)
    - The Gym/Health Club
    - Other
    - There are no places to go after midnight that don't involve drinking

20. What places **WOULD** you go to hang out late at night (i.e., after midnight) that don't involve drinking if these were available?(**Select all that apply**)

    - Bowling alley or Billiards (Pool hall)
    - Diner/Restaurant
    - A Friend's Home
    - Movie Theater
    - University Sponsored "After-dark" activities (game nights, midnight basketball, etc.)
    - The Gym/Health Club
    - Other
    - There are no places to go after midnight that don't involve drinking

21. In order to distribute information about issues, activities, and school policies related to alcohol and drug use, the University uses a number of different venues. In your opinion, which is the **most** effective way of getting the message out to students like yourself?

    - E-mail
    - Text Messages
    - Voicemail
    - Announcements by Professors in class
    - School Website
    - School Newspaper
    - School Television or Radio Broadcasts
    - Flyers and Posters
    - Residence Hall or Other Programmatic Activities
    - Campus-wide giveaways (t-shirts, pens/pencils, Frisbees etc)

22. Which of the following categories **best** represents your affiliation with the university?

    - Greek member
    - Athletic Scholarship Recipient
    - Athlete
    - Member of the Student Government Association
    - Ambassador
    - Scholarship Recipient (Academic or other – NOT Athletic)
    - Other Student Leader
    - Member of a University recognized student club
    - Student focused on academics, not involved with other school activities

Appendix B: Wildcard Descriptives By School

Table B-1: School A Wildcard Descriptives

School A N=618	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	608			1 to 5	4.14 (1.03)
Very Unlikely		18	3%		
Somewhat Unlikely		40	7%		
Neither Likely nor Unlikely		56	9%		
Somewhat Likely		219	36%		
Very Likely		275	45%		
No trouble with School Administration, how likely are you to call for help?	608			1 to 5	4.63 (.73)
Very Unlikely		6	1%		
Somewhat Unlikely		10	2%		
Neither Likely nor Unlikely		27	4%		
Somewhat Likely		113	19%		
Very Likely		452	74%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	357			1 to 55	3.41 (4.30)
Last 2 weeks, Never Pre-loaded		159			
Last 2 weeks, Pre-loaded Once		103			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	618			0 to 8	3.39 (1.88)
Number of places I WOULD go	618			0 to 8	3.80 (1.88)
Those saying "NO places I CAN go …"	88				
Would go if there were places **To** go		78	89%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)	605				
E-mail		187	31%		
Campus-Wide Giveaways		155	26%		
Flyers and Posters		59	10%		
School Newspaper		54	9%		
Residence Hall or Other Program Activities		47	8%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	598			1 to 5	3.09 (1.17)
Believable/Very Believable		278	38%		
Not at all Believable/Not Very Believable		229	47%		
Neither Unbelievable nor Believable		91	15%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	229			0 to 6	3.46 (1.64)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		185			
My personal experiences tell me otherwise		161			
My friend's experiences tell me otherwise		147			

Table B-2: School B – Selected Wildcard Descriptives

School B N=497	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	483			1 to 5	4.22 (1.09)
Very Unlikely		25	5%		
Somewhat Unlikely		19	4%		
Neither Likely nor Unlikely		38	8%		
Somewhat Likely		145	30%		
Very Likely		256	53%		
No trouble with School Administration, how likely are you to call for help?	483			1 to 5	4.67 (.71)
Very Unlikely		6	1%		
Somewhat Unlikely		4	<1%		
Neither Likely nor Unlikely		19	4%		
Somewhat Likely		84	17%		
Very Likely		370	77%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	302			1 to 99	4.41 (7.82)
Last 2 weeks, Never Pre-loaded		135			
Last 2 weeks, Pre-loaded Once		89			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	497			0 to 7	3.16 (1.83)
Number of places I WOULD go	497			0 to 7	3.44 (1.94)
Those saying "NO places I CAN go …"	43				
Would go if there were places **To** go		34	79%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)	487				
E-mail		186	38%		
Campus-Wide Giveaways		112	23%		
Flyers and Posters		63	13%		
Text Messages		51	10%		
School Website		21	4%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	482			1 to 5	2.63 (1.17)
Believable/Very Believable		146	30%		
Not at all Believable/Not Very Believable		267	56%		
Neither Unbelievable nor Believable		69	14%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	267			1 to 6	3.38 (1.46)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		208			
My personal experiences tell me otherwise		186			
My friend's experiences tell me otherwise		160			

Table B-3: School C – Selected Wildcard Descriptives

School C N=588	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	566			1 to 5	4.31 (1.03)
Very Unlikely		17	3%		
Somewhat Unlikely		31	5%		
Neither Likely nor Unlikely		44	8%		
Somewhat Likely		141	25%		
Very Likely		333	59%		
No trouble with School Administration, how likely are you to call for help?	566			1 to 5	4.60 (.81)
Very Unlikely		9	2%		
Somewhat Unlikely		14	3%		
Neither Likely nor Unlikely		22	4%		
Somewhat Likely		102	18%		
Very Likely		419	74%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	341			1 to 35	4.01 (4.29)
Last 2 weeks, Never Pre-loaded		138			
Last 2 weeks, Pre-loaded Once		78			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	588			0 to 7	3.63 (1.98)
Number of places I WOULD go	588			0 to 8	3.56 (2.02)
Those saying "NO places I CAN go …"	38				
Would go if there were places **To** go		27	71%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)	568				
E-mail		182	32%		
Campus-Wide Giveaways		144	25%		
Text Messages		63	11%		
Flyers and Posters		50	9%		
School Website		45	8%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	562			1 to 5	2.82 (1.24)
Believable/Very Believable		213	38%		
Not at all Believable/Not Very Believable		264	47%		
Neither Unbelievable nor Believable		85	15%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	264			0 to 6	3.34 (1.69)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		212			
My personal experiences tell me otherwise		190			
My friend's experiences tell me otherwise		165			

Table B-4: School D – Selected Wildcard Descriptives

School D N=99	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	94			1 to 5	4.48 (.95)
Very Unlikely		4	4%		
Somewhat Unlikely		0	0%		
Neither Likely nor Unlikely		6	6%		
Somewhat Likely		21	22%		
Very Likely		63	67%		
No trouble with School Administration, how likely are you to call for help?	94			1 to 5	4.62 (.89)
Very Unlikely		3	3%		
Somewhat Unlikely		1	1%		
Neither Likely nor Unlikely		5	5%		
Somewhat Likely		10	10%		
Very Likely		75	80%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	43			1 to 55	4.86 (8.20)
Last 2 weeks, Never Pre-loaded		18			
Last 2 weeks, Pre-loaded Once		12			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	99			0 to 8	3.39 (1.95)
Number of places I WOULD go	99			0 to 7	3.75 (2.11)
Those saying "NO places I CAN go …"	7				
Would go if there were places **To** go		5	71%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)					
Campus-Wide Giveaways		30	31%		
E-mail		26	27%		
Residence Hall or Other Program Activities		13	13%		
Text Messages		10	10%		
Flyers and Posters		9	9%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	93			1 to 5	3.08 (1.24)
Believable/Very Believable		45	48%		
Not at all Believable/Not Very Believable		32	35%		
Neither Unbelievable nor Believable		16	17%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	32			1 to 6	3.00 (1.74)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		23			
My friend's experiences tell me otherwise		20			
My personal experiences tell me otherwise		18			

Table B-5: School E – Selected Wildcard Descriptives

School E N=326	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	312			1 to 5	4.45 (.92)
Very Unlikely		7	2%		
Somewhat Unlikely		10	3%		
Neither Likely nor Unlikely		22	7%		
Somewhat Likely		70	22%		
Very Likely		203	65%		
No trouble with School Administration, how likely are you to call for help?	312			1 to 5	4.72 (.68)
Very Unlikely		3	1%		
Somewhat Unlikely		5	2%		
Neither Likely nor Unlikely		9	3%		
Somewhat Likely		40	13%		
Very Likely		255	82%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	161			1 to 12	3.47 (2.06)
Last 2 weeks, Never Pre-loaded		83			
Last 2 weeks, Pre-loaded Once		41			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	326			0 to 7	3.68 (1.92)
Number of places I WOULD go	326			0 to 7	3.52 (1.91)
Those saying "NO places I CAN go …"	12				
Would go if there were places **To** go		8	67%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)	309				
Campus-Wide Giveaways		90	29%		
E-mail		87	28%		
Text Messages		38	12%		
Flyers and Posters		27	9%		
Announcements by Professors in Class		22	7%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	304			1 to 5	2.97 (1.17)
Believable/Very Believable		126	41%		
Not at all Believable/Not Very Believable		128	42%		
Neither Unbelievable nor Believable		50	17%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	128			0 to 6	3.02 (1.49)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		104			
My personal experiences tell me otherwise		76			
My friend's experiences tell me otherwise		69			

Table B-6: School H – Selected Wildcard Descriptives

School H N=522	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	498			1 to 5	3.94 (1.40)
Very Unlikely		63	13%		
Somewhat Unlikely		30	6%		
Neither Likely nor Unlikely		38	8%		
Somewhat Likely		112	22%		
Very Likely		255	52%		
No trouble with School Administration, how likely are you to call for help?	498			1 to 5	4.23 (1.21)
Very Unlikely		38	8%		
Somewhat Unlikely		17	3%		
Neither Likely nor Unlikely		38	8%		
Somewhat Likely		102	21%		
Very Likely		303	61%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	204			1 to 99	5.54 (8.38)
Last 2 weeks, Never Pre-loaded		94			
Last 2 weeks, Pre-loaded Once		40			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	513			0 to 7	3.14 (1.68)
Number of places I WOULD go	513			0 to 8	3.01 (1.94)
Those saying "NO places I CAN go …"	47				
Would go if there were places **To** go		34	72%		
Communicating Campaign Messages					

Unable to provide comparable data for this school on this measure as the question was presented on the paper survey as "check all that apply" rather than selecting the "most" effective means of communication

Campaign Credibility					
You - How believable is '0 to 4' drinks?	498			1 to 5	3.25 (1.18)
Believable/Very Believable		249	50%		
Not at all Believable/Not Very Believable		162	33%		
Neither Unbelievable nor Believable		87	17%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	162			0 to 6	2.09 (1.38)
Top 3 Reasons Don't Believe Messages					
My personal experiences tell me otherwise		95			
My observations of students tell me otherwise		86			
My friend's experiences tell me otherwise		66			

Table B-7: School I – Selected Wildcard Descriptives

School I N=845	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	821			1 to 5	4.11 (1.58)
Very Unlikely		41	5%		
Somewhat Unlikely		65	8%		
Neither Likely nor Unlikely		69	8%		
Somewhat Likely		235	29%		
Very Likely		411	50%		
No trouble with School Administration, how likely are you to call for help?	821			1 to 5	4.46 (.92)
Very Unlikely		20	2%		
Somewhat Unlikely		25	3%		
Neither Likely nor Unlikely		55	7%		
Somewhat Likely		178	22%		
Very Likely		543	66%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	473			1 to 55	4.41 (6.04)
Last 2 weeks, Never Pre-loaded		210			
Last 2 weeks, Pre-loaded Once		132			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	845			0 to 7	3.47 (1.92)
Number of places I WOULD go	845			0 to 8	3.67 (1.99)
Those saying "NO places I CAN go …"	58				
Would go if there were places **To** go		43	74%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)					
E-mail		258	32%		
Campus-Wide Giveaways		204	25%		
School Newspaper		105	13%		
Text Messages		77	9%		
Flyers and Posters		61	7%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	803			1 to 5	3.26 (1.13)
Believable/Very Believable		427	53%		
Not at all Believable/Not Very Believable		245	31%		
Neither Unbelievable nor Believable		131	16%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	245			0 to 6	3.21 (1.69)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		187			
My personal experiences tell me otherwise		164			
My friend's experiences tell me otherwise		135			

Table B-8: School J – Selected Wildcard Descriptives

School J N=106	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	100			1 to 5	4.33 (1.03)
Very Unlikely		3	3%		
Somewhat Unlikely		6	6%		
Neither Likely nor Unlikely		6	6%		
Somewhat Likely		25	25%		
Very Likely		60	60%		
No trouble with School Administration, how likely are you to call for help?	100			1 to 5	4.55 (.92)
Very Unlikely		3	3%		
Somewhat Unlikely		2	2%		
Neither Likely nor Unlikely		6	6%		
Somewhat Likely		15	15%		
Very Likely		74	74%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	49			1 to 11	3.27 (1.75)
Last 2 weeks, Never Pre-loaded		31			
Last 2 weeks, Pre-loaded Once		10			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	106			0 to 8	3.46 (2.07)
Number of places I WOULD go	106			0 to 7	3.49 (1.95)
Those saying "NO places I CAN go …"	9				
Would go if there were places **To** go		8	89%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)	100				
Campus-Wide Giveaways		34	34%		
E-mail		24	24%		
Text Messages		18	18%		
Announcements by Professors in Class		10	10%		
Flyers and Posters		8	8%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	98			1 to 5	3.04 (1.22)
Believable/Very Believable		45	46%		
Not at all Believable/Not Very Believable		42	43%		
Neither Unbelievable nor Believable		11	11%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	42			1 to 6	3.14 (1.66)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		31			
My personal experiences tell me otherwise		23			
My friend's experiences tell me otherwise		19			

Table B-9: School K – Selected Wildcard Descriptives

School K N=633	N	Freq.	Valid %	Range	Mean (SD)
Medical Amnesty					
Scenario – how likely to call for help?	606			1 to 5	4.28 (1.13)
Very Unlikely		28	5%		
Somewhat Unlikely		32	5%		
Neither Likely nor Unlikely		49	8%		
Somewhat Likely		128	21%		
Very Likely		369	61%		
No trouble with School Administration, how likely are you to call for help?	606			1 to 5	4.53(.94)
Very Unlikely		16	3%		
Somewhat Unlikely		24	4%		
Neither Likely nor Unlikely		28	5%		
Somewhat Likely		95	16%		
Very Likely		443	73%		
Pre-Gaming/Pre-Loading					
Of those who pre-load … Number of drinks the last time pre-loaded	253			1 to 36	3.99 (3.92)
Last 2 weeks, Never Pre-loaded		165			
Last 2 weeks, Pre-loaded Once		57			
Places to Recreate Without Drinking					
Places to Recreate?					
Number of places I CAN go	633			0 to 8	3.66 (1.92)
Number of places I WOULD go	633			0 to 8	3.57 (1.99)
Those saying "NO places I CAN go …"	30				
Would go if there were places **To** go		22	73%		
Communicating Campaign Messages					
Most effective Way? (Top 5 Responses)	599				
Campus-Wide Giveaways		150	25%		
Text Messages		114	19%		
E-mail		104	17%		
Announcements by Professors in Class		74	12%		
Flyers and Posters		69	12%		
Campaign Credibility					
You - How believable is '0 to 4' drinks?	584			1 to 5	3.26 (1.22)
Believable/Very Believable		314	54%		
Not at all Believable/Not Very Believable		197	34%		
Neither Unbelievable nor Believable		73	12%		
Of Those Who Don't Believe Messages					
Number of Reasons Don't Believe	197			0 to 6	2.65 (1.72)
Top 3 Reasons Don't Believe Messages					
My observations of students tell me otherwise		134			
My personal experiences tell me otherwise		111			
My friend's experiences tell me otherwise		94			