# WWU Lifestyles Project IV: Patterns of Alcohol and Drug Consumption and Consequences among Western Washington University Students 

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(Report 2000-02)

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## Executive Summary

The first Lifestyles Project Survey of alcohol and drug usage among Western students was conducted in 1992 as part of the University's effort (a) to investigate students' college experience both in and out of the classroom; (b) to enhance those experiences which lead to personal and academic success; and (c) to reduce risk factors that might jeopardize that success. Subsequent surveys were conducted in 1995, 1998, and 1999. All except the 1999 survey were administered to random samples of students across all years in school, including graduate school students. The 1999 survey differed in that its sample was drawn only from the pool of students who had taken the 1998 survey, thus supplying researchers with one-year longitudinal data.

Changes noted between 1998 and 1999 findings included the reasons students drank. In 1998 the number one reason listed was to get drunk or high, while in 1999 was to relax. In 1999, drinking to get drunk or high saw a percentage decrease of $25 \%$. In addition, how often students drank decreased, with slightly fewer drinking 1-2 or 3-4 times a week in 1999 than they did in 1998. Males, heavier drinkers overall than females, also showed signs of increased moderation, with slightly more reporting they did not drink at all or drank only once a month.

The Lifestyles Survey defined how much students drank as typical (the amount of alcohol consumed on any given weekend night) and peak (the most a student consumed in one session over the past 30 days). Compared to 1998 findings, on both typical and peak occasions 1999 survey respondents, generally, were more likely to drink in moderation, and less likely to drink at high risk levels or to the point of potential alcohol poisoning. However, on peak occasions, males were over twice as likely to drink to the point of alcohol poisoning as females. Moreover, while males were less likely to drink at high risk levels on typical occasions, the 1999 and 1998 percentages for males drinking to point of alcohol poisoning were about the same. Possibly, this might suggest a (statistically) bipolar male drinking pattern of cautiousness (as evidenced by less high risk consumption) versus recklessness (as evidenced by no decline in the percent drinking to the point of alcohol poisoning).

Whether typical or peak, when categorized by gender and age, the heaviest drinking students continued to be under-aged males-though there was one encouraging finding: a percentage decrease of $22 \%$ for under-aged males who drank to the point of potential alcohol poisoning. However, as there were no first-time freshmen in the 1999 survey, the finding should be viewed cautiously. It may be an artifact of the longitudinal design of the survey; on the other hand, it may also indicate that for some students the novelty of college drinking begins to lose impact as they mature.

Lifestyles Surveys have included questions which measure the negative effects of alcohol use, borrowed from the Rutgers Alcohol Problem Inventory (RAPI), a nationally administered survey instrument. Between 1998 and 1999, the percentage decrease in students experiencing at least one of the seventeen listed RAPI items was $26 \%$ In addition, researchers have computed a RAPI Mean (a synthesized figure used for comparison purposes) in each survey year. In 1999, the RAPI Mean was 3.9, down from 4.1 in 1998, and 4.5 in 1995.

In addition to RAPI items, the Lifestyles Survey has included items from the Assessment of Perceived Risks of Alcohol (APRA), a questionnaire that asks students what they think their chances are of experiencing certain risks due to alcohol use while in college. Combining APRA and RAPI findings allowed researchers to compare perceived risks to the actual occurrences of negative alcohol effects. In both survey years, the percentage of students predicting alcohol would negatively affect their class attendance was fairly close to the percentage that actually did miss classes. On the other hand, the percentage of students predicting alcohol would negatively affect their ability to complete homework was fairly distant from the percentage of students actually not able to complete homework. In 1999, for instance, there was a $61 \%$ difference between students who predicted alcohol use would negatively affect their homework and those for whom alcohol use actually did affect their homework. When it comes to their academics, students are simply not making the connection between drinking and negative consequences. Regardless of gender, age, or living situation, findings indicate that the more drinks a student consumes on typical occasions, the lower his or her grade point average. (See Figure 1.)


Questions about drug use were included in all Lifestyles Project Surveys. In 1999, the percentage decrease in student tobacco use was $22 \%$. Regarding harder drugs, very little use of LSD and cocaine (or crack) was noted. Moreover, in 1999 the percentage decrease in student marijuana use was $14 \%$.

Also included in Lifestyles Project Surveys were auestions about the influence of alcohol and / or drugs on unwanted sex. In 1999, approximately $14 \%$ of Western students indicated they had had unwanted sex because alcohol or drugs had influenced their better judgement. Less than $4 \%$ indicated they had had unwanted sex because they had been coerced into it while high or drunk. About 3\% indicated they had been forced into unwanted sex through the threat of physical force.

Lastly, and very importantly, the Lifestyles Project has explored students' perceptions of how often and how much other students drink and use marijuana. Having awareness measurements is particularly critical to Western's alcohol and drug abuse programs, administered by the Prevention and Wellness Services. Since 1992, using social norms marketing, the PWS has campaigned vigorously against the misperceived drinking patterns of the "imaginary peer". As will be expanded on later in this report, the "imaginary peer" concept contends that students do not really know how often or how much other students drink, but extrapolate those patterns from what they witness among their immediate circle of friends, or what they hear anecdotally "around campus." Invariably, as will be seen, they grossly overestimate how often and how much others drinks, and may be also feeling an unwarranted pressure to "keep up" in order to conform.

Findings from 1998 and 1999 indicated that while positive strides have been made in increasing awareness, students still have a tendency to overestimate, sometimes grossly, other students' drug and alcohol use. The reality is that most students drink modestly, in both frequency and amount, yet students have a "perception gap," a nagging feeling that others drink alcohol or smoke marijuana more than they themselves do.

One critical point to make about the 1999 Lifestyles Project Survey is that the social norms marketing strategy, as practiced at Western, seemed to have the further positive effect of increasing awareness with the same cohort of survey respondents targeted by the campaign two years previously. While many surveys, both locally and nationally, have highlighted the initial effect of social norms marketing on a cohort, no previous surveysagain, either locally or nationally-have ever looked at whether this approach can continue to have an effect on increasing preceptual accuracy.

## Introduction

In response to both internal and national findings and concerns, the first Lifestyles Project Survey of alcohol and drug usage was conducted in 1992 as part of Western's ongoing effort (a) to investigate students' experience both in and out of the classroom; (b) to enhance those experiences which lead to personal and academic success; and (c) to reduce risk factors that might jeopardize that success.

In the 1992 report, researchers concluded that three patterns of alcohol use existed among Western students: 1) a sizable number reported no-to-low drinking patterns, with nearly a quarter reporting not drinking at all; 2) among drinkers only, about a third reported typical drinking patterns best described as moderate; and 3) also among drinkers only, patterns emerged that would be considered heavy drinking, with nearly a third of drinkers indicating they drank at high risk levels on typical occasions, and nearly twothirds indicating they drank at high risk levels on peak occasions. ${ }^{1}$

Findings from 1992 indicated, for the most part, that alcohol use at Western was relatively wide spread and potentially damaging to certain populations of students, including: (a) the substantial numbers of students reporting typical and peak incidence of high risk consumption; (b) males reporting drinking to the point of potential alcohol poisoning; (c)
women trying to keep pace with their male drinking companions despite reaching higher blood alcohol levels quicker; and (d) respondents whose perceived level of personal risk for negative academic outcomes was two to three times higher than the actual occurrence of these negative academically-related consequences.

Drinking patterns changed only slightly between the 1992 and 1995 Lifestyles Surveys, though there were some encouraging trends. For instance, on peak occasions, the percentage decrease in students drinking to the point of potential alcohol poisoning ( $7+\mathrm{drinks}$ ) was $14 \%$; and on typical occasions, the percentage decrease in students high risk consumption (5+ drinks) was 10\%.

In 1997 the Prevention and Wellness Services (PWS) initiated an intensive social norms marketing campaign designed to correct students' misperceptions of drinking norms. Social norms marketing, simply put, utilizes marketing strategies-for instance, posters, fliers, handbills, etc.-to disseminate statistically correct information on students' drinking behaviors. Most students, when they party, consume four or fewer drinks; in other words, most students do not drink at high risk levels. Partially as a result of these efforts, encouraging trends were noted in the 1998 Lifestyles Survey findings. For one, the percentage decrease in students reporting high risk consumption (5+ drinks) on typical occasions was $20 \%$; and for another, the percentage decrease in students who thought other students drank once a week or more was $44 \%$. This last finding indicated that students' awareness had increased, since the 1998 figure was closer to the actual percentage of students who reported drinking once a week or more than in 1995.

To expand, in 1995 the actual percentage of students who indicated they drank once a week or more was $31.2 \%$, while the actual percentage of survey respondents who thought other students drank once a week or more was $89.0 \%$. In other words, Western students in 1995 grossly overestimated how often other students drank. In 1998, the actual percentage of students who indicated they drank once a week or more was $32.7 \%$, while the percentage of survey respondents who thought other students drank once a week or more was $49.5 \%$. Western students in 1998 still overestimated how often other students drank, but were not nearly as far off as they had been in 1995.

Having a measurement of awareness is particularly critical to Western's alcohol and drug abuse programs, administered by the Prevention and Wellness Services. Since 1992, using social norms marketing, the PWS has campaigned vigorously against the misperceived drinking patterns of the "imaginary peer". As will be expanded on later in this report, the "imaginary peer" concept contends that students do not really know how often or how much other students drink, but extrapolate those patterns from what they witness among their immediate circle of friends, or what they hear anecdotally "around campus." Invariably, as will be seen, they grossly overestimate how often and how much others drinks, and may be also feeling an unwarranted pressure to "keep up" in order to conform.

Findings from the newest Lifestyles Project Survey, conducted in the spring of 1999, confirm the trends first noted in 1998: while positive strides have been made in increasing awareness, students still have a tendency to overestimate, sometimes grossly, other stu-
dents' drug and alcohol use. The reality is that most students drink modestly, in both frequency and amount, yet students have a "perception gap," a powerful feeling that others drink alcohol or smoke marijuana more than they themselves do.

Western's alcohol and drug abuse prevention programs focus on debunking those myths through actual statistical findings delivered through an innovative social norms marketing advertising campaign. Survey findings from previous Lifestyles Surveys point out that the actual drinking patterns among Western students are not at all what students assume them to be. There is much less drinking than many students believe, and these actual facts can be used effectively to convince moderate to low drinkers that they actually represent the majority, not the minority, attitude.

In 1999, Lifestyles Project researchers added a new dimension to the series by surveying only those students who had taken the 1998 survey, thus producing one-year longitudinal findings. Changes noted between 1998 and 1999 findings included the reasons students drank. In 1998 the number one reason listed was to get drunk or high, while in 1999 was to relax. The percentage decrease in students listing to get drunk or high as their reason to drink was $25 \%$. In addition, how often students drank decreased, with slightly fewer reported drinking 1-2 or 3-4 times a week in 1999 than they did in 1998. Males, heavier drinkers overall than females, also showed signs of increased moderation, with slightly more reporting they did not drink at all or drank once a month.

The Lifestyles Survey defined how much students drank as typical (the amount of alcohol consumed on any given weekend night) and peak (the most a student consumed in one session over the past 30 days). Compared to 1998 findings, on both typical and peak occasions 1999 survey respondents, generally, were more likely to drink in moderation, and less likely to drink at high risk levels or to the point of potential alcohol poisoning. However, on peak occasions, males were over twice as likely to drink to the point of alcohol poisoning as females. Moreover, while males were less likely to drink at high risk levels on typical occasions, the 1999 and 1998 percentages for males drinking to point of alcohol poisoning were about the same. Possibly, this might suggest a (statistically) bipolar male drinking pattern of cautiousness (as evidenced by less high risk consumption) versus recklessness (as evidenced by no decline in the percent drinking to the point of alcohol poisoning).

Whether typical or peak, when categorized by gender and age the heaviest drinking students continued to be under-aged males, though there was one encouraging finding: there was a percentage decrease of $22 \%$ in the number of under-aged males who drank to the point of potential alcohol poisoning on typical occasions. However, as there were no first-time freshmen in the 1999 survey, the finding should be viewed cautiously. It may be an artifact of the longitudinal design of the survey; on the other hand, it may also indicate that for some students the novelty of college drinking begins to lose impact as they mature.

As has its predecessors, the 1999 Lifestyles Survey will provide invaluable information in Western's continuing proactive alcohol and drug abuse prevention efforts to promote discussions about and programs aimed at reducing the amount of alcohol abuse at Western. ${ }^{2}$

## Demographics

Unlike previous Lifestyles Surveys-in which a random sample was drawn from the overall population of Western students-the 1999 Lifestyles Survey sample was drawn only from the pool of students who had taken the 1998 Lifestyles Survey. Questionnaires were mailed to 800 respondents; ultimately, 347 questionnaires were returned.

Because the 1999 Lifestyles Survey was designed as a longitudinal assessment, its demographic make-up was necessarily different from those of previous Lifestyles Surveys. There were, for instance, no first-year students surveyed. All the students were at least in their second year at Western. Also, students were more likely to be 21 years old or older $(71 \%)$, and to live off-campus ( $83 \%$ ). Students of color were over represented in the 1999 Lifestyles Survey ( $31 \%$, compared to $15 \%$ of the fall, 1998, student body overall). And finally, the percentage of female respondents was different from any previous year's survey; it was $53 \%$ in 1999, but has been as high as $64 \%$ in 1992 and as low as $49 \%$ in 1998.

As with previous Lifestyles Survey Reports, analyses by gender and year in school (minus first year) will be presented. Also, to reflect Washington State drinking laws, two age categories will be utilized: underage students (less than 21) and legal-aged students (21 and over). Continuing from the 1998 report will be analyses by housing type (although findings for subsets of on-campus housing will be of marginal use because so few lived oncampus), and by extracurricular activity, including participation in club sports, intercollegiate athletics, and volunteerism. (See Table 1.)

Table 1: Lifestyles Survey Demographics
(1992/1995/1998 compared)

| Item | Gender |  | Ethnicity |  |  |  |  | Age |  | Housing* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female | Male | Black | Asian | White | Hispanic | Amer. Indian | $\begin{array}{\|c} \hline 20 \text { or } \\ \text { less } \end{array}$ | $\begin{aligned} & 21 \text { or } \\ & \text { over } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Off- } \\ \text { campus } \end{array}$ | $\begin{gathered} \text { On- } \\ \text { Campus } \end{gathered}$ |
| WWU: 1997 | 56.0 | 44.0 | 1.7 | 6.9 | 78.2 | 2.7 | 2.0 | - | - | 66.7 | 33.3 |
| Lifestyle: 1992 | 64.4 | 35.6 | 1.5 | 9.2 | 84.1 | 2.1 | 1.6 | 44.2 | 55.8 | - | - |
| Lifestyle: 1995 | 57.2 | 42.8 | 1.0 | 7.4 | 85.2 | 2.5 | 1.8 | 43.1 | 56.6 | - | - |
| Lifestyle: 1998 | 48.9 | 51.2 | 1.4 | 6.9 | 77.3 | 2.7 | 2.2 | 40.8 | 59.2 | 61.8 | 37.3 |
| Lifestyle: 1999 | 53.3 | 46.7 | 4.6 | 15.9 | 67.3 | 6.7 | 3.4 | 29.1 | 70.9 | 82.7 | 17.3 |

*Figures estimated

## Findings from the 1999 Lifestyles Survey

## Reasons for Drinking

From a list of ten items, 1999 Lifestyles Survey respondents were asked to indicate which were a major, minor, or not a reason why they chose to drink or get high. The top three items listed as "major reasons" for drinking were: to relax (28.4\%), to get drunk or
high $(22.0 \%)$, and to feel at ease socially $(21.4 \%)$. These findings are somewhat different from 1998 findings, when to get drunk or high was the most frequently noted "major reason" for drinking or getting high (29.4\%).

As in 1998, a considerable number of 1999 respondents indicated that getting drunk or high was not a reason they drank ( $42.9 \%$ ), while many students listed to relax ( $46.6 \%$ ) or to feel at ease $(49.2 \%)$ as a "minor reason" they drank. In other words, while drinking to get drunk was a specific reason for some students to drink, most students drank to relax or feel at ease socially. (Table 2.)

Table 2: Reasons for Drinking / Getting High
(1998 and 1999 compared.)

| Item | Major <br> reason |  | Minor <br> reason |  | Not a <br> reason |  |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: |
|  | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| To get drunk or high | $\mathbf{2 9 . 4}$ | $\mathbf{2 2 . 0}$ | 35.1 | 28.5 | 42.9 | 42.1 |
| To relax | $\mathbf{2 5 . 8}$ | $\mathbf{2 8 . 4}$ | 46.6 | 47.5 | 25.0 | 26.6 |
| To feel at ease socially | $\mathbf{1 9 . 5}$ | $\mathbf{2 1 . 4}$ | 49.2 | 45.4 | 29.3 | 35.1 |
| To relieve boredom | 6.4 | 4.9 | 24.6 | 27.7 | 70.5 | 65.9 |
| To overcome depression or anxiety | 4.5 | 3.4 | 16.4 | 20.9 | 80.2 | 74.5 |
| To sleep | 2.9 | 1.5 | 14.9 | 12.9 | 83.6 | 84.2 |
| To feel a sense of well-being | 2.5 | 2.6 | 13.8 | 16.6 | 83.6 | 80.9 |
| Because of peer pressure | 1.8 | 1.5 | 13.1 | 14.2 | 85.4 | 84.0 |
| To influence sexual behavior | 1.6 | 2.6 | 11.2 | 12.3 | 86.1 | 86.1 |
| To relieve physical pain | 0.4 | 0.4 | 7.8 | 10.5 | 91.8 | 89.1 |

## Alcohol Use: Frequency of Consumption

## Frequency: General Findings

Overall, the percentage of 1999 Lifestyles Survey respondents indicating they drank once a month decreased from previous surveys. The percentage of respondents indicating they drank 2-3 times a month increased, while the percentage indicating they drank 1-2 times a week remained fairly steady across all survey years. The percentage of respondents indicating they drank 3-4 times a week decreased slightly, while the percentage of respondents indicating they drank more often than 3-4 times a week increased slightly. (See Table 3 on next page.)

Findings taken from a national report of alcohol and drug use ("Alcohol and Drugs on American College Campuses, Volume IV: 1992-94") allowed a small degree of local / national comparison of drinking frequency. The Core Alcohol and Drug Survey was developed specifically for use at institutions of higher education under a federal grant from the Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE). The most recent Core findings were taken from the 1992-94 grant cycle. Of the 130 FIPSE-funded institutions using the Core, 89 "met the criteria for both randomness and representativeness. Data on 45,632 students from these 89 institutions form(ed) the basis for most of the analysis in (the) report."3

Table 3: "How often in the last month did you drink alcohol?" Frequency of Alcohol Consumption (1992/1995/1998/1999 compared)

| Item | Overall |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| '92 | '95 | '98 | '99 |  |
| not at all | 23.4 | 21.5 | 22.3 | 21.9 |
| once a month | 16.8 | 17.8 | 12.5 | 12.2 |
| 2-3 times a month | 29.0 | 29.4 | 29.4 | 32.7 |
| 1-2 times a week | 22.3 | 23.1 | 24.7 | 22.2 |
| 3-4 times a week | 6.3 | 5.9 | 9.1 | 8.3 |
| more often | 2.2 | 2.2 | 1.9 | 2.8 |

Compared to Core findings, Western's 1999 Lifestyles Survey respondents were somewhat more likely to report they did not drink at all. (Unfortunately, the Core included the category "1-6 times a year," of which many, $21.2 \%$, respondents belonged, leaving a gap in the analysis.) For the remaining categories, 1999 Western Lifestyles Survey respondents were more likely to report they drank once a month, a couple of times a month, and a couple of times a week than Core respondents. Western respondents, however, were less likely than Core respondents to report drinking at the higher frequencies of 3-4 times a week and more often than 3-4 times a week. (See Table 4.)

Table 4: Drinking Frequency Comparison, Results from
National Core Survey vs. WWU Lifestyles Survey
(1994 Core vs. 1992/1995/1998/1999 Lifestyles)

| USA | WWU | $\begin{aligned} & 1994 \\ & \text { USA } \end{aligned}$ | 1992 <br> WWU | $\begin{aligned} & 1995 \\ & \text { WW U } \end{aligned}$ | 1998 <br> WWU | $\begin{aligned} & 1999 \\ & \text { WW U } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| never | not at all | 16.4 | 23.4 | 21.5 | 22.3 | 21.9 |
| 1-6 times a year |  | 21.2 | - | - | - | - |
| once a month | once a month | 7.8 | 16.8 | 17.8 | 12.5 | 12.2 |
| twice a month | 2-3 times a month | 14.1 | 29.0 | 29.4 | 29.4 | 32.7 |
| once a week | 1-2 times a week | 20.9 | 22.3 | 23.1 | 24.7 | 22.2 |
| 3 times a week | 3-4 times a week | 15.3 | 6.3 | 5.9 | 9.1 | 8.3 |
| "more often" | "more often" | 4.4 | 2.2 | 2.2 | 1.9 | 2.8 |

## Frequency: Year in School

Second-year Lifestyle Survey students were more likely to report they drank once a month, or 2-3 times a month than were third- or fourth-year students. Conversely, secondyear students were less likely to report they drank 3-4 times a week, or more often than 3-4 times a week than were third- or fourth year students.

Compared to 1998 LIfestyle Survey second-year students, 1999 second-year students drank less at the higher frequency levels of 1-2 times a week, 3-4 times a week, and more often than 3-4 times a week. Conversely, 1999 second-year students drank more at the moderate frequency levels of once a month and 2-3 times a month than 1998 Lifestyles Survey students.

When comparing 1998 and 1999 third-year students, trends were hard to decipher. More third-year students reported not drinking at all, but also drinking more often than 3-4 times a week. On the other hand, 1999 most fourth-year students drank less frequently when compared to 1998 students. More 1999 fourth-year students reported not drinking at all or drinking once a month than in 1998; moreover, fewer reported drinking 3-4 times a week than in 1998. (See Table 5.)

Table 5: "How often in the last month did you drink alcohol?"
Frequency of Alcohol Consumption by Year in School
(1992/1995/1998/1999 compared)

| Item | 2nd Year |  |  |  | 3rd Year |  |  |  | 4th Year |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |
| not at all | 25.7 | 29.7 | 25.0 | 22.8 | 24.0 | 22.5 | 21.6 | 25.3 | 15.7 | 14.2 | 15.6 | 19.4 |
| once a mo. | 17.6 | 13.5 | 11.1 | 20.8 | 17.8 | 15.8 | 12.1 | 9.5 | 15.4 | 17.5 | 6.9 | 11.9 |
| 2-3 times/mo. | 28.0 | 25.7 | 27.1 | 37.5 | 27.3 | 28.3 | 33.2 | 34.4 | 33.7 | 28.3 | 36.7 | 30.2 |
| 1-2 times/wk. | 22.0 | 24.3 | 22.2 | 18.9 | 21.8 | 26.7 | 25.6 | 19.0 | 22.3 | 28.3 | 22.9 | 24.6 |
| 3-4 times/wk. | 5.5 | 6.8 | 11.8 | 0.0 | 6.9 | 2.5 | 7.5 | 8.3 | 7.8 | 7.5 | 14.9 | 10.7 |
| more often | 1.2 | 0.0 | 2.8 | 0.0 | 2.2 | 4.1 | 0.0 | 3.5 | 5.1 | 4.2 | 3.0 | 3.2 |

## Frequency: Gender

Compared to males, females tended to drink in the moderate frequency ranges, with $40.7 \%$ indicating they drank 2-3 times a month. Males, on the other hand, tended to drink in the higher frequency ranges; for instance, $12.3 \%$ of males reported drinking 3-4 times a week, compared to $4.9 \%$ of females. When compared to findings from the 1998 survey, females in the 1999 survey were more moderate in their drinking frequency: fewer reported drinking 1-2 times a week or 3-4 times a week.

Between the 1998 and 1999 surveys, drinking frequency patterns also changed slightly for males, with more males reporting they did not drink at all, or drank once a month. This shift towards moderation probably came from males who, in 1998, reported drinking in the moderate frequency ranges of 2-3 times a month or 1-2 times a week, as there were slight increases in the percentages of males reporting they drank 3-4 times a week or more often than 3-4 times a week. (See Table 6.)

Table 6: "How often in the last month did you drink alcohol?"
Frequency of Alcohol Consumption by Gender
(1992/1995/1998/1999 compared)

| Item | Overall |  |  |  | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '92 | ‘95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | ‘95 | '98 | '99 |
| not at all | 23.4 | 21.5 | 22.3 | 21.9 | 22.7 | 22.9 | 22.7 | 27.8 | 24.0 | 19.6 | 22.1 | 16.8 |
| once a month | 16.8 | 17.8 | 12.5 | 12.2 | 11.6 | 14.9 | 5.1 | 6.8 | 20.9 | 19.6 | 19.7 | 17.0 |
| 2-3 times a month | 29.0 | 29.4 | 29.4 | 32.7 | 26.4 | 23.9 | 27.5 | 23.2 | 31.2 | 33.9 | 29.8 | 40.7 |
| 1-2 times a week | 22.3 | 23.1 | 24.7 | 22.2 | 24.3 | 25.4 | 30.0 | 26.6 | 20.6 | 21.8 | 20.7 | 18.2 |
| 3-4 times a week | 6.3 | 5.9 | 9.1 | 8.3 | 11.1 | 9.5 | 11.6 | 12.3 | 2.6 | 3.6 | 6.2 | 4.9 |
| more often | 2.2 | 2.2 | 1.9 | 2.8 | 3.9 | 3.5 | 3.1 | 3.4 | 0.8 | 1.4 | 1.5 | 2.4 |

As has been noted in previous Lifestyles Survey reports, simply because females report drinking less than males does not imply that females are less at risk. Certain national findings indicated that the thirty-day prevalence of alcohol use by full-time college females was $72 \%$, while for non-college females was $59 \% .{ }^{4}$ Among similar cohorts of males no such disparity was found. Although college females are not necessarily more at risk for alcohol problems than non-college females, it does stand to reason that at least the potential exists for more alcohol-related problems among females attending college.

Moreover, due to biological differences the relative risk to females may be equal to, if not greater than that of males. The natural differences in fat distribution and hormonal levels, as well as the effects of birth control pills, contribute to the potential for females to reach higher blood alcohol levels than men-all other factors being equal (weight, number of drinks, rate of consumption). This finding paints an especially risky situation for females if they try to match the drinking levels of their male companions.

## Frequency: Legal and Under-aged

In the 1999 Lifestyles Survey, findings for under-aged and legal-aged categories were effected by the low number of under-aged respondents. Only $30 \%$ were under-age, compared to $40 \%$ in 1998. Nonetheless, for the under-aged respondents, the trend was encouraging. Considerably more reported drinking at the moderate frequency of 2-3 times a month ( $37 \%$ in 1999, compared to $28 \%$ in 1998), and none reported drinking at the higher frequency levels. For legal-aged respondents, 1999 findings mirrored those from 1998. About 15\% drank at the higher frequency levels, while most drank at the more moderate levels. (See Table 7.)

Table 7: "How often in the last month did you drink alcohol?" Frequency of Alcohol Consumption by Age Category (1992/1995/1998/1999 compared)

| Item | Overall |  |  |  | 20 or less |  |  |  | 21 or over |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ‘92 | ‘95 | '98 | '99 | ‘92 | '95 | '98 | '99 | '92 | ‘95 | '98 | '99 |
| not at all | 23.4 | 21.5 | 22.3 | 21.9 | 32.6 | 31.3 | 27.8 | 24.8 | 17.0 | 13.7 | 18.7 | 20.7 |
| once a month | 16.8 | 17.8 | 12.5 | 12.2 | 16.8 | 20.4 | 15.3 | 17.4 | 16.9 | 15.9 | 10.0 | 10.2 |
| 2-3 times a month | 29.0 | 29.4 | 29.4 | 32.7 | 27.2 | 28.0 | 28.0 | 37.0 | 29.8 | 30.7 | 29.2 | 30.8 |
| 1-2 times a week | 22.3 | 23.1 | 24.7 | 22.2 | 17.7 | 15.6 | 19.3 | 20.8 | 25.4 | 28.9 | 29.8 | 22.7 |
| 3-4 times a week | 6.3 | 5.9 | 9.1 | 8.3 | 5.2 | 4.7 | 7.0 | - | 7.3 | 6.9 | 10.3 | 11.6 |
| more often | 2.2 | 2.2 | 1.9 | 2.8 | 0.5 | 0.0 | 2.6 | - | 3.6 | 4.0 | 2.0 | 4.0 |

As in the 1998 Lifestyles Survey, findings for legal/illegal drinking age were very different for 1999's respondents when compared to the national Core survey findings. National trends indicated that legal versus illegal drinking age had little, if any, bearing whatsoever on how frequently a student drank. Percentages for all frequency levels were nearly identical, regardless of whether a student was of drinking age or not, while such was not the case for Western survey respondents. (See Table 8.)

Table 8: Drinking Frequency Comparison, Results from
National Core Survey vs. WWU Lifestyles Survey
by Legal and Underage Students
(1994 Core vs. 1999 Lifestyles)

| USA | WWU | USA <br> $<21$ | USA <br> $21+$ | WWU <br> $<21$ | WWU <br> $21+$ |
| :--- | :--- | :---: | :---: | :---: | :---: |
| never | not at all | $\mathbf{1 7 . 4}$ | $\mathbf{1 4 . 6}$ | 24.8 | 20.7 |
| 1-6 times a yr. |  | $\mathbf{2 2 . 4}$ | $\mathbf{1 9 . 8}$ | - | - |
| once a month | once a month | $\mathbf{7 . 8}$ | $\mathbf{7 . 8}$ | 17.4 | 10.2 |
| twice a month | 2-3 times a month | $\mathbf{1 4 . 2}$ | $\mathbf{1 3 . 9}$ | 37.0 | 30.8 |
| once a week | 1-2 times a week | $\mathbf{2 0 . 3}$ | $\mathbf{2 1 . 8}$ | 20.8 | 22.7 |
| 3 times a week | 3-4 times a week | $\mathbf{1 4 . 6}$ | $\mathbf{1 6 . 5}$ | - | 11.6 |
| "more often | "more often" | $\mathbf{3 . 3}$ | $\mathbf{5 . 6}$ | - | 4.0 |

## Frequency: Housing Type

Both the 1998 and 1999 Lifestyles Survey included information on housing types, including residence halls, substance-free residence halls, and off campus. Unfortunately, in 1999 fewer than 15 students reporting living in a substance-free hall, so those results won't reveal much, except that those students drank only at the lower frequency levels-2-3 times a month or less. For other survey respondents, their place of residence didn't appear to influence their frequency of drinking very strongly. Whether on- or off-campus, more 1999 survey respondents drank at the moderate frequency levels than they did in 1998. (See Table 9)

Table 9: "How often in the last month did you drink alcohol?"
Frequency of Alcohol Consumption by Housing Type
(1998 and 1999 compared-no data for 1992 or 1995)

| Item | Overall |  | Residence Hall'98 '99 |  | $\begin{aligned} & \text { Substance- } \\ & \text { free Hall } \end{aligned}$ |  | Off Campus |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '98 | '99 |  |  | '98 | '99 | '98 | '99 |
| not at all | 22.3 | 21.9 | 21.3 | 24.5 | 49.2 | 45.5 | 18.6 | 20.6 |
| once a month | 12.5 | 12.2 | 17.9 | 17.6 | 18.8 | 36.4 | 8.9 | 10.3 |
| 2-3 times/mo. | 29.4 | 32.7 | 30.4 | 40.2 | 24.4 | 18.1 | 28.5 | 32.1 |
| 1-2 times/wk. | 24.7 | 22.2 | 22.5 | 12.7 | 3.8 | - | 30.2 | 24.5 |
| 3-4 times/wk. | 9.1 | 8.3 | 5.2 | 2.5 | 1.9 | - | 11.6 | 9.5 |
| more often | 1.9 | 2.8 | 2.7 | 2.5 | 1.9 | - | 2.2 | 3.0 |

## Frequency: Activity Involvement

Both the 1998 and 1999 Lifestyles Survey included information on various student activities, including volunteer service, intercollegiate athletics, and club sports. Of the three, findings indicated that volunteers were more likely to drink at moderate frequency levels. Among volunteers, 1999 survey respondents were more likely to drink at moderate frequency levels than were 1998 survey respondents.

On the other hand, among intercollegiate athletes, 1999 respondents were more likely to drink 1-2 times a week or 3-4 times a week than were 1998 respondents. Similarly, among sports club participants, 1999 respondents were more likely to drink more often than 3-4 times a week than were 1998 respondents. (See Table 10.)

Table 10: "How often in the last month did you drink alcohol?"
Frequency of Alcohol Consumption by Activity Involvement (1998 only)

| Item | Overall |  | Volunteer Service |  | Intercollegiate Athletics |  | $\begin{gathered} \text { Club } \\ \text { '98 } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Sports } \\ \text { ' } 99 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '98 | '99 | '98 | '99 | '98 | '99 |  |  |
| not at all | 22.3 | 21.9 | 15.2 | 26.4 | 19.4 | 21.4 | 18.6 | 12.1 |
| once a month | 12.5 | 12.2 | 9.8 | 14.5 | 13.5 | - | 8.9 | 7.0 |
| 2-3 times/mo. | 29.4 | 32.7 | 34.8 | 28.9 | 26.8 | 23.6 | 28.5 | 35.2 |
| 1-2 times/wk. | 24.7 | 22.2 | 25.0 | 22.1 | 23.5 | 31.4 | 30.2 | 24.6 |
| 3-4 times/wk. | 9.1 | 8.3 | 12.6 | 5.9 | 13.5 | 23.6 | 11.6 | 7.0 |
| more often | 1.9 | 2.8 | 2.8 | 1.7 | 3.4 | - | 2.2 | 14.1 |

## Alcohol Use: Quantities of Alcohol Consumption Defined

The Lifestyles Survey discusses four measures of quantity of alcohol consumption: typical, peak, high risk, and potential alcohol poisoning. ${ }^{5}$ A typical quantity of alcohol is defined as the amount a student would drink on any given Friday or Saturday night during the month. This measure has been used in a number of research studies and is considered a valid indication of the amount of alcohol students generally drink. A peak quantity of alcohol, on the other hand, is defined as the "most" a student has consumed in the past month. This measure yields an indication of the high range amounts of alcohol students consume. Together, the two measures of quantity of consumption-typical and peakproduce a comprehensive profile of the amount of alcohol students drink.

Another measure of consumption frequently cited in the literature is high risk consumption (in previous Lifestyles Surveys, called binge drinking), which is operationally defined as the consumption of five or more drinks in one sitting. ${ }^{6}$ High risk consumption is of particular concern to colleges and universities because it is frequently associated with residence hall damage, sexual assault, poor academic performance, and missed classes. ${ }^{7}$ Although drinking to the point of life-threatening alcohol poisoning differs among individuals based on height, weight, speed of consumption, drinking history, gender, etc., for the purpose of this study the threshold for alcohol poisoning will be considered drinking 7-8 drinks at one sitting. Taking into account all the individual variables, drinking at this level generally will produce an average blood alcohol level of $0.15 \%-0.20 \%$. Blood alcohol levels in that range begin to put the individual at risk for alcohol poisoning. Although records of body weight and hours of drinking per occasion allow for a more precise estimate of alcohol poisoning, because of the high number of survey participants, these characteristics will wash out in statistical analyses, allowing typical and peak levels of drinking to be a practical indication of a reduction, or increase, in risk due to alcohol poisoning.

> For the remaining analyses of typical quantity drinking, only those survey respondents who reported some frequency of drinking were considered. In other words, approximately one-fifth of the sample, those who reported they did not drink at all, were removed from the analysis. This was done so that the trends of drinkers could be assessed, since drinkers are the population that put themselves at potential risk of alcohol-related problems. Tables that include responses from all survey respondents can be found in Appendix A.

## Alcohol Use: Typical Quantity

## Typical: General Findings

For those respondents who drank, survey respondents in 1999 were more likely to drink 1-2 drinks on typical occasions than in 1998, and less likely to drink 5+ drinks, or 7+ drinks. Very encouraging was the fact that the percentage decrease for those students drinking 7+ drinks on typical occasions was $16 \%$. (See Table 11.)

Table 11: "On a given weekend night, how much alcohol do you typically consume?"
Typical Alcohol Consumption, Overall (1992/1995/1998/1999 compared, drinkers only)

|  | Overall |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Item | '92 | '95 | '98 | '99 |
| 1-2 drinks | 38.2 | 33.8 | 49.2 | 54.3 |
| 3-4 drinks | 28.0 | 32.1 | 23.5 | 23.4 |
| 5+ drinks | 33.8 | 34.1 | 27.3 | 22.3 |
| 7+ drinks | 16.3 | 14.6 | 14.2 | 11.9 |
| ${ }^{*}$ Potential alcohol poisoning |  |  |  |  |

## Typical: Year in School

Compared to 1998 Lifestyles Survey findings, in 1999 second-year respondents were much more likely to drink at moderate levels. Far more had 1-2 drinks on typical occasions, considerably fewer had 5+ or 7+ drinks on typical occasions. Conversely, in 1999 third- and fourth-year respondents were much more likely to drink at higher levels than in 1998. Far more had 7+ drinks on typical occasions, while fewer had 1-2 drinks on typical occasions. (See Table 12.)

Table 12: "On a given weekend night, how much alcohol do you typically consume?"
Typical Alcohol Consumption by Year in School
(1992/1995/1998/1999 compared, drinkers only)

| Item | 2nd Year |  |  |  | 3rd Year |  |  |  | 4th Year |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |
| 1-2 drinks | 31.9 | 18.6 | 32.4 | 54.1 | 35.6 | 37.5 | 69.2 | 47.6 | 42.5 | 32.5 | 62.8 | 56.3 |
| 3-4 drinks | 28.9 | 34.9 | 32.4 | 21.6 | 25.6 | 33.8 | 13.5 | 30.2 | 30.6 | 36.3 | 15.1 | 21.1 |
| 5+drinks | 39.3 | 46.5 | 35.2 | 24 | 38.9 | 28.8 | 17.3 | 22.2 | 26.9 | 31.3 | 22.1 | 22.7 |
| 7+ drinks* | 21.5 | 20.9 | 21.3 | 11 | 20.0 | 13.8 | 3.8 | 11.1 | 11.4 | 13.8 | 10.5 | 13.3 |

*Potential alcohol poisoning

## Typical: Gender

Findings from the 1998 Lifestyles Survey indicated a trend for both males and females to consume less alcohol on typical occasions. This trend continued in the 1999 findings, when both males and females were more likely to consume 1-2 drinks on typical occasions. Conversely, both males and females were less likely to consume 5+ drinks on typical occasions. Additionally, females were less likely to consume 7+ drinks on typical occasions. For males, however, about the same percent reported consuming 7+ drinks on typical occasions in 1999 as in 1998. (See Table 13.)
Table 13: "On a given weekend night, how much alcohol do you typically consume?"
Typical Alcohol Consumption by Gender (1992/1995/1998/1999 compared, drinkers only)

|  | Overall |  |  |  | Males |  |  |  | Females |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |
| 1-2 drinks | 38.2 | 33.8 | 49.2 | 54.3 | 33.1 | 26.2 | 44.5 | 52.3 | 41.2 | 39.7 | 54.2 | 55.9 |
| 3-4 drinks | 28.0 | 32.1 | 23.5 | 23.4 | 20.6 | 25.4 | 19.2 | 14.0 | 32.5 | 36.9 | 27.8 | 30.4 |
| 5+ drinks | 33.8 | 34.1 | 27.3 | 22.3 | 46.3 | 48.5 | 36.3 | 33.6 | 26.3 | 23.5 | 17.9 | 13.2 |
| 7+ drinks* | 16.3 | 14.6 | 14.2 | 11.9 | 28.9 | 21.6 | 20.9 | 21.5 | 8.8 | 9.5 | 7.3 | 4.4 |

*Potential alcohol poisoning

## Typical: Legal and Under-aged

As mentioned previously, the 1999 Lifestyles Survey findings for under-aged and legalaged categories were effected by the low number of under-aged respondents. Only $30 \%$ were under-age, compared to $40 \%$ in 1998. Yet encouragingly, considerably more underaged drinkers reported drinking at the moderate levels on typical occasions, while fewer reported consuming 7+ drinks. In fact, from 1998 to 1999 the percentage decrease for underaged respondents reporting they consumed $7+$ drinks on typical occasions was $53 \%$. For legal-aged respondents, slightly fewer reported consuming 1-2 drinks on typical occasions, while slightly more reported they consuming 7+ drinks on typical occasions. Other categories remained about the same in 1999 as they were in 1998. (See Table 14.)

Table 14: "On a given weekend night, how much alcohol do you typically consume?"
Typical Alcohol Consumption by Age Category (1992/1995/1998/1999 compared, drinkers only)

| Item | Overall |  |  |  | 20 or less |  |  |  | 21 or over |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |  |
| 3-4 drinks | 38.2 | 33.8 | 49.2 | 54.3 | 31.3 | 25.9 | 34.3 | 49.2 | 43.5 | 38.7 | 58.1 | 56.2 |
| 5+ drinks | 28.0 | 32.1 | 23.5 | 23.4 | 28.3 | 33.6 | 29.0 | 26.2 | 27.9 | 31.2 | 20.2 | 22.5 |
| 7+ drinks ${ }^{*}$ | 33.8 | 34.1 | 27.3 | 22.3 | 40.4 | 40.5 | 36.8 | 24.6 | 28.6 | 30.2 | 21.6 | 21.3 |
| ${ }^{*}$ Potential alcohol poisoning | 14.6 | 14.2 | 11.9 | 21.2 | 17.2 | 23.0 | 10.8 | 13.1 | 13.1 | 9.0 | 12.4 |  |

## Typical: Housing Type

For the 1999 Lifestyles Survey, findings for drinking on typical occasions by housing type were, statistically, of little use. The number of students reporting they lived in a sub-stance-free hall was less than 15 students, and all of those reported they consumed only 1-2 drinks on typical occasions. For the rest of the survey respondents, patterns for typical occasion drinking by off-campus students changed only marginally between 1998 and 1999. On the other hand, some change was noted among 1999 residence hall survey respondents, who appeared to consume less alcohol on typical occasions than they reported consuming in 1998. (See Table 15.)

Table 15: "On a given weekend night, how much alcohol do you typically consume?"
Typical Alcohol Consumption by Housing Type
(1998/1999 only; drinkers only)

| Item | Overall |  | Residence Hall'98 '99 |  | Substancefree Hall |  | Off Campus |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '98 | '99 |  |  | '98 | '99 | '98 | '99 |
| 1-2 drinks | 49.2 | 54.3 | 39.0 | 44.8 | 59.3 | 100 | 52.3 | 54.8 |
| 3-4 drinks | 23.5 | 23.4 | 28.0 | 31.0 | 22.2 | 0.0 | 21.8 | 22.9 |
| 5+ drinks | 27.3 | 22.3 | 33.0 | 24.1 | 18.5 | 0.0 | 25.8 | 22.4 |
| 7+ drinks* | 14.2 | 11.9 | 22.0 | 13.8 | 7.4 | 0.0 | 11.7 | 11.4 |

*Potential alcohol poisoning

## Typical: Activity Involvement

Of the three activities tracked in the Lifestyles Surveys-volunteer service, intercollegiate athletics, and club sports-findings indicated that volunteers were likely to drink at moderate frequency levels, whereas participation in either club sports or intercollegiate athletics appeared to have a negative influence on the amount of alcohol consumed on typical occasions. However, it should be kept in mind that the participation numbers for both intercollegiate athletics and club sports were low for the 1999 survey. (See Table 16.)

Table 16: "On a given weekend night, how much alcohol do you typically consume?"
Typical Alcohol Consumption by Activity Involvement (1998/1999 only; drinkers only)

| Item | Overall |  | Volunteer Service |  | Intercollegiate Athletics |  | $\begin{aligned} & \text { Club } \\ & \text { '98 } \\ & \hline \end{aligned}$ | Sports '99 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '98 | '99 | '98 | '99 | '98 | '99 |  |  |
| 1-2 drinks | 49.2 | 54.3 | 56.9 | 52.4 | 43.5 | 30.0 | 37.1 | 46.2 |
| 3-4 drinks | 23.5 | 23.4 | 21.5 | 24.7 | 30.4 | 10.0 | 29.0 | 3.8 |
| 5+ drinks | 27.3 | 22.3 | 21.5 | 22.4 | 26.1 | 60.0 | 33.9 | 50.0 |
| 7+ drinks* | 14.2 | 11.9 | 10.4 | 9.4 | 17.4 | 40.0 | 19.4 | 26.9 |

*Potential alcohol poisoning

> For the remaining analyses of peak quantity drinking, only those survey respondents who reported some frequency of drinking were considered. In other words, approximately one-fifth of the sample, those who reported they did not drink at all, were removed from the analysis. This was done so that the trends of drinkers could be assessed, since drinkers are the population that put themselves at potential risk of alcohol-related problems. Tables that include responses from all survey respondents can be found in Appendix A.

## Alcohol Use: Peak Quantities

## Peak: General Findings

For those respondents who drank, on peak occasions, overall, fewer 1999 Lifestyles Survey respondents reported consuming $5+$ drinks (high risk consumption) or 7+ drinks (potential alcohol poisoning) than did 1998 respondents. More 1999 respondents reported consuming 3-4 drinks than 1998 respondents. About the same percentage of 1998 and 1999 respondents reported consuming 1-2 drinks on peak occasions. (See Table 17.)

Table 17: "Think of the occasion you drank the most this month: how much did you drink?"
Peak Alcohol Consumption, Overall (1992/1995 / 1998/1999 compared, drinkers only)

| Overall |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Item | '92 | '95 | '98 | '99 |
| 1-2 drinks | 21.9 | 23.7 | 24.7 | 24.0 |
| 3-4 drinks | 19.6 | 20.5 | 23.0 | 29.8 |
| 5+ drinks | 57.2 | 55.8 | 52.2 | 46.3 |
| 7+ drinks* | 40.6 | 35.1 | 35.3 | 29.8 |
| *Potential alcohol poisoning |  |  |  |  |

## Peak: Year in School

Compared to 1998 Lifestyles Survey findings, 1999 second-year respondents were much more likely to drink at moderate levels. More consumed 1-2 or 3-4 drinks on peak occasions, while considerably fewer had $5+$ or $7+$ drinks. Third-year survey respondents, however, were more likely to drink at higher levels (5+ and 7+ drinks) on peak occasions. Findings for fourth-year students changed the least between the two survey years. Slightly more 1999 fourth-year respondents reported consuming 3-4 drinks and 7+ drinks on peak occasions than in 1998, and slightly fewer reported consuming 1-2 drinks. (See Table 18.)

Table 18: "Think of the occasion you drank the most this month:
how much did you drink?"
Peak Alcohol Consumption by Year in School
(1992/1995/1998/1999 compared, drinkers only)

| Item | 2nd Year |  |  |  | 3rd Year |  |  |  | 4th Year |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |
| 1-2 drinks | 19.8 | 17.3 | 15.5 | 27.0 | 19.0 | 21.5 | 44.0 | 20.6 | 25.0 | 23.5 | 31.7 | 25.2 |
| 3-4 drinks | 18.5 | 9.6 | 21.9 | 27.0 | 18.7 | 22.6 | 16.0 | 23.8 | 19.3 | 24.5 | 26.8 | 33.1 |
| 5+drinks | 61.6 | 73.1 | 63.1 | 46 | 60.7 | 53.7 | 40.0 | 55.6 | 54.3 | 52.0 | 41.5 | 41.7 |
| 7+ drinks* | 47.2 | 51.9 | 46.6 | 30 | 45.6 | 33.3 | 24.0 | 33.3 | 36.8 | 28.5 | 25.6 | 29.9 |

*Potential alcohol poisoning

## Peak: Gender

For both males and females, fewer respondents reported consuming 5+ or 7+ drinks on peak occasions in 1999 than in 1998, while more respondents reported consuming 3-4 drinks. Males, of course, reported consuming more drinks on peak occasions than females; for instance, over twice as many males than females reported consuming 7+ drinks on peak occasions ( $43 \%$ males versus $19 \%$ females). (See Table 19.)

Table 19: "Think of the occasion you drank the most this month:
how much did you drink?"
Peak Alcohol Consumption by Gender
(1992/1995/1998/1999 compared, drinkers only)

| Item | Overall |  |  |  | Males |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |  |
| 1-2 drinks | 21.9 | 23.7 | 24.7 | 24.0 | 17.5 | 16.9 | 19.3 | 17.9 | 26.2 | 27.6 | 30.6 | 28.7 |
| 3-4 drinks | 19.6 | 20.5 | 23.0 | 29.8 | 13.9 | 16.9 | 20.2 | 23.6 | 24.4 | 22.7 | 25.9 | 34.6 |
| 5+ drinks | 57.2 | 55.8 | 52.2 | 46.3 | 68.7 | 66.2 | 60.6 | 58.5 | 49.4 | 49.7 | 43.6 | 36.8 |
| 7+ drinks* | 40.6 | 35.1 | 35.3 | 29.8 | 54.3 | 48.0 | 46.8 | 43.4 | 30.5 | 26.6 | 23.5 | 19.1 |

*Potential alcohol poisoning

## Peak: Legal and Under-aged

Whether under-aged or legal-aged, fewer respondents reported consuming 5+ or 7+ drinks on peak occasions in 1999 than in 1998, while more respondents reported consuming 3-4 drinks. Under-aged respondents continue to report consuming more drinks on peak occasions than legal-aged respondents; for instance, $52 \%$ of under-aged respondents reported consuming $5+$ drinks on peak occasions, compared to $44 \%$ for legal-aged respondents. (See Table 20.)

Table 20: "Think of the occasion you drank the most this month: how much did you drink?"
Peak Alcohol Consumption by Age Category
(1992/1995/1998/1999 compared, drinkers only)

| Item | Overall |  |  |  | 20 or less |  |  |  | 21 or over |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '92 | ‘95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |
| 1-2 drinks | 21.9 | 23.7 | 24.7 | 24.0 | 19.0 | 22.1 | 19.6 | 26.2 | 25.2 | 24.4 | 27.9 | 23.2 |
| 3-4 drinks | 19.6 | 20.5 | 23.0 | 29.8 | 19.3 | 19.3 | 19.0 | 21.5 | 22.1 | 21.0 | 25.3 | 32.8 |
| 5+ drinks | 57.2 | 55.8 | 52.2 | 46.3 | 61.6 | 58.6 | 61.5 | 52.3 | 52.7 | 54.6 | 46.8 | 44.1 |
| 7+ drinks* | 40.6 | 35.1 | 35.3 | 29.8 | 44.8 | 39.3 | 45.1 | 32.3 | 35.1 | 32.8 | 29.7 | 28.8 |

*Potential alcohol poisoning

## Peak: Housing Type

As mentioned previously, there were less than 15 respondents living in substance-free halls in 1999, so results won't reveal much, except that those few number of respondents all reported consuming 1-2 drinks on peak occasions. For the rest of the survey respondents, where they lived didn't appear to influence the number of drinks consumed on peak occasions very strongly. Whether on- or off-campus, more 1999 survey respondents drank at the moderate frequency levels than did 1998 survey respondents. (See Table 21.)

Table 21: "Think of the occasion you drank the most this month:
how much did you drink?"
Peak Alcohol Consumption by Housing Type
(1998/1999 only, drinkers only)

| Item | Overall |  | Residence Hall'98 '99 |  | Substancefree Hall |  | Off Campus |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '98 | '99 |  |  | '98 | '99 | '98 | '99 |
| 1-2 drinks | 24.7 | 24.0 | 23.9 | 34.5 | 37.0 | 100 | 24.0 | 20.7 |
| 3-4 drinks | 23.0 | 29.8 | 21.2 | 24.1 | 11.1 | - | 24.7 | 31.3 |
| 5+ drinks | 52.2 | 46.3 | 54.8 | 41.4 | 51.8 | - | 51.7 | 48.1 |
| 7+ drinks* | 35.3 | 29.8 | 38.9 | 34.5 | 25.9 | - | 34.8 | 29.8 |

*Potential alcohol poisoning

## Peak: Activity Involvement

Of the three activities tracked in the Lifestyles Surveys-volunteer service, intercollegiate athletics, and club sports-findings indicated that volunteers were likely to drink at moderate levels on peak occasions, whereas participation in either club sports or intercollegiate athletics appeared to have a negative influence on the amount of alcohol consumed. However, it should be kept in mind that the participation numbers for both intercollegiate athletics and club sports were low for the 1999 survey. (See Table 22.)

Table 22: "Think of the occasion you drank the most this month: how much did you drink?"
Peak Alcohol Consumption by Activity Involvement
(1998/1999 only, drinkers only)

|  |  |  | Volunteer |  | Intercollegiate |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | Overall | Service <br> Athletics |  | Club |  | Sports |  |  |
| Se | '99 | '98 | '99 | '98 | '99 | '98 | '99 |  |
| 1-2 drinks | 24.7 | 24.0 | 29.7 | 28.2 | 22.7 | 10.0 | 16.7 | 16.0 |
| 3-4 drinks | 23.0 | 29.8 | 23.2 | 29.4 | 13.6 | 10.0 | 21.7 | 24.0 |
| 5+ drinks | 52.2 | 46.3 | 47.1 | 42.4 | 63.7 | 80.0 | 61.6 | 60.0 |
| 7+ drinks* | 35.3 | 29.8 | 31.2 | 25.9 | 36.4 | 60.0 | 38.3 | 56.0 |

*Potential alcohol poisoning

## Typical and Peak by Gender and Age Category

When 1999 Lifestyles Survey findings were categorized by both gender and age category, the issue of which subgroup drank the most amount of alcohol was clear: underaged males. On typical occasions, $32 \%$ of under-aged males reported consuming $7+$ drinks, compared to $19 \%$ of legal-aged males, only $2 \%$ of under-aged females, and $6 \%$ of legal-aged females. On peak occasions, $63 \%$ of under-aged males reported consuming $7+$ drinks, compared to $39 \%$ of legal-aged males, $20 \%$ of under-aged females, and $19 \%$ of legal-aged females.

Yet the percentage of under-aged males reporting they consumed 7+ drinks on typical occasions did see a percentage decrease of $22 \%$ from 1998. Moreover, a higher percentage of both under-aged and legal-aged females reported moderation on typical occasion drinking. Harder to make sense of was the typical occasion drinking trends for 1999's legal-aged males. In 1999, more legal-aged males reported consuming only 1-2 drinks on typical occasions, while more also reported consuming 7+ drinks. Fewer 1999 legal-aged males reported consuming 3-4 or 5-6 drinks on typical occasions.

For all four subcohorts, peak occasion consumption results were mixed. About the same percentage of 1999 under-aged and legal-aged males reported consuming 7+ drinks on peak occasions as in 1998. Yet a higher percentage of under-aged males also reported consuming only 1-2 drinks, and a higher percentage of legal-aged males reported consuming 3-4 drinks. Peak occasion drinking levels for under-aged females definitely indicated increased moderation; fewer reported consuming 7+ drinks, while more reported consuming

1-2 or 3-4 drinks. On the other hand, in 1999 more legal-aged females reported consuming $7+$ drinks on peak occasions than in 1998, although fewer reported consuming 5-6 drinks and more reported consuming 3-4 drinks. (See Tables 23 and 24.)

Table 23: Typical Alcohol Consumption by Gender and Age Categories
(1998 only, drinkers only)

| Item | Underaged Males |  | Legal-aged Males |  | Underaged Females |  | Legal-aged Females |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| 1-2 drinks | 34.4 | 31.6 | 48.5 | 56.8 | 34.3 | 56.5 | 71.9 | 55.6 |
| 3-4 drinks | 12.5 | 15.8 | 22.1 | 13.6 | 39.2 | 30.4 | 17.5 | 31.1 |
| 5-6 drinks | 12.5 | 21.0 | 16.6 | 10.3 | 14.7 | 10.9 | 7.0 | 7.7 |
| 7+ drinks* | 40.6 | 31.6 | 12.9 | 19.3 | 11.8 | 2.2 | 3.5 | 5.6 |

*Potential alcohol poisoning
Table 24: Peak Alcohol Consumption
by Gender and Age Categories
(1998 only, drinkers only)

| Item | Underaged Males |  | Legal-aged Males |  | Underaged Females |  | Legal-aged Females |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| 1-2 drinks | 18.6 | 21.1 | 19.5 | 17.2 | 20.2 | 28.3 | 40.0 | 28.9 |
| 3-4 drinks | 11.9 | 5.3 | 23.3 | 27.6 | 23.2 | 28.3 | 28.2 | 37.8 |
| 5-6 drinks | 5.1 | 10.4 | 17.0 | 16.1 | 23.2 | 23.9 | 17.3 | 14.4 |
| 7+ drinks* | 64.4 | 63.2 | 40.3 | 39.1 | 33.3 | 19.6 | 14.5 | 18.9 |

## Negative Effects Due to Alcohol Use

In order to quantify the occurrence of negative effects due to alcohol use, the Lifestyles Project Survey utilized the Rutgers Alcohol Problem Inventory (RAPI). The RAPI contains a number of items measuring the negative effects of alcohol use, including hangovers, missed work or school, arguments with family or friends, etc. Survey respondents were asked to indicate whether in the last six months they had experienced each incident.

## Negative Effects: Occurrence

In 1998, $51.3 \%$ of respondents indicated they had experienced at least one negative effect due to alcohol; in 1999, that figure was $37.1 \%$. The difference was a percentage decrease of $28 \%$. From the seventeen prompts utilized from the RAPI on the Lifestyles Survey, the two most cited negative occurrences among both 1998 and 1999 respondents were "caused shame or embarrassment to self or someone else" and "neglected responsibilities". After these items, responses between 1998 and 1999 were somewhat different. In 1998, the third most cited negative occurrence was "not able to do homework or study for a test". In 1999, the third most cited negative occurrence was "had a fight, argument, or bad feelings with a friend or family member". In 1999, the item "not able to do home or study for a test" was the seventh most cited negative consequence of alcohol use. (See Table 25.)

Table 25: "How many times has each of the following things happened to you during the past six months while you were drinking alcohol or as a result of your alcohol use?" RAPI Measures of Negative Effects Due to Alcohol Use (1998 and 1999 compared)

| Item | Never |  | 1-2 times |  | 3-5 times |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| Caused shame or embarrassment | 64.1 | 62.4 | 28.2 | 28.6 | 4.5 | 6.9 |
| Neglected your responsibilities | 66.7 | 71.8 | 25.6 | 22.4 | 4.7 | 3.7 |
| Not able to do your homework or study for a test | 79.8 | 82.2 | 17.4 | 13.2 | 2.0 | 3.3 |
| Passed out | 74.0 | 76.9 | 17.2 | 14.0 | 4.3 | 5.0 |
| Had a fight or argument w/friend or family member | 78.4 | 79.8 | 16.3 | 16.5 | 3.1 | 3.7 |
| Missed a day (or part of a day) of school or work | 79.6 | 81.8 | 15.3 | 13.2 | 3.3 | 3.3 |
| Need more alcohol for same effect | 75.5 | 76.2 | 15.1 | 12.3 | 4.9 | 8.2 |
| Woke up lost or disoriented | 83.8 | 86.7 | 13.1 | 10.0 | 2.0 | 2.1 |
| Missed out because spent too much on alcohol | 83.5 | 84.0 | 12.7 | 13.6 | 2.7 | 1.2 |
| Drove shortly after having 4 or more drinks | 81.2 | 77.2 | 12.1 | 14.1 | 4.1 | 5.8 |
| Tried to cut down or quit drinking | 85.0 | 83.1 | 12.1 | 14.0 | 2.1 | 2.5 |
| Were hurt or injured | 89.8 | 88.0 | 9.0 | 10.3 | 0.6 | 0.8 |
| Kept drinking when you promised yourself not to | 89.4 | 86.8 | 8.6 | 11.6 | 0.8 | 1.7 |
| Felt that you had a problem with alcohol | 90.8 | 89.3 | 6.9 | 9.1 | 0.8 | 0.8 |
| Was told by a friend to stop/cut down on drinking | 92.9 | 94.6 | 5.3 | 5.0 | 0.8 | 0.4 |
| Formal sanction | 94.1 | 96.7 | 5.3 | 2.9 | 0.2 | 0.4 |
| Went to work or school high or drunk | 91.6 | 89.2 | 5.1 | 7.9 | 1.4 | 1.7 |

As is common for large national surveys, questionnaire items are often altered slightly from survey to survey, to fine tune or respond to new issues. As a result, only a few RAPI responses matched closely enough to present accurate longitudinal findings over all survey years. Three of the items, however, have to do directly or indirectly with academics, so are of particular interest to Western. For each of the three academic-related items (neglected responsibilities, not able to do homework, and missed some school) the percentage of respondents reporting they had experienced the negative occurrence was lower in 1999 than in 1998. (See Table 26.)

Table 26: "How many times has each of the following things happened to you during the past six months while drinking alcohol or as a result of alcohol use?" RAPI Measure of Negative Effects Due to Alcohol Use, Longitudinal Findings (1992/1995/1998/1999 compared)

|  | 1-2 Occurrences |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1992 | 1995 | 1998 | 1999 |
| Neglected your responsibilities | 20.1 | 20.0 | 25.6 | 22.4 |
| Not able to do your homework or study for a test | 13.2 | 13.6 | 17.4 | 13.2 |
| Missed a day (or part of a day) of school or work | 14.5 | 13.4 | 15.3 | 13.2 |
| Drove shortly after having 4 or more drinks | 12.6 | 8.9 | 12.1 | 14.1 |
| Tried to cut down or quit drinking | 14.1 | 9.9 | 12.1 | 14.0 |

## Negative Effects: Severity

In order to measure severity of negative effects of alcohol use, each RAPI item asked survey respondents to indicate how often each negative effect has occurred in the past six months: never, 1-2 times, 3-5 times, 6-10 times, and over 10 times. This scale was then assigned a single digit numerical value: never $=0 ; 1-2$ times $=1 ; 3-5$ times $=2 ; 6-10$ times $=$ 3 ; and over 10 times $=4$. Scores for each respondent were then tallied and respondents assigned a number; for example, a respondent might have indicated that one event occurred 2 times (a score of 1 ), another event five times (a score of 2 ), and one other event 12 times (a score of 4); thus, their overall score would be $1+2+4=7$. Each respondent received a total RAPI score. These scores were tallied and divided by the number of respondents to create a mean, what this report refers to as a RAPI Mean. Please note that this RAPI Mean does not present an exact number of incidents; it is, rather, a synthesized figure used for comparison purposes. If, for instance, the RAPI Mean were to rise or drop dramatically over a given period of time, one could assume that survey respondents were experiencing an increasing or decreasing amount of negative effects due to alcohol use.

The overall RAPI Mean for 1999 Lifestyles survey respondents was 3.9, down from the 1998 finding of 4.1, and from the 1995 finding of 4.5. For females the 1999 RAPI Mean was 3.2, the same as in 1998, but lower than the 1995 finding of 3.9. For males the 1999 RAPI Mean was 4.9, down from the 1998 finding of 5.0, and from the 1995 finding of 5.4. (See Figure 2.)


## Negative Effects: Perceived Risks verses Actual Occurrences

In an attempt to understand students' perceptions of alcohol-based problems when compared to actual occurrences of alcohol-based problems, two sets of findings were utilized. One set was based on the Assessment of Perceived Risks of Alcohol (APRA), which measures the personal perception of the likelihood of risks related to alcohol use while in college. The other set was based on the Rutgers Alcohol Problem Inventory (RAPI), which measures the number and severity of alcohol-related problem behaviors. Questions from these independently-developed instruments were included on the Lifestyles Survey. Because they are separately developed instruments, only three prompts matched up well enough to report in a comparative fashion, but those three do provide important insight.

In greater detail, here is what the two instruments measure: 1) the APRA score is the percentage of survey respondents indicating any likelihood of experiencing a given negative effect during the ensuing four years at the time of responding to the survey; and 2) the RAPI score is the percentage of respondents indicating even one occurrence of a given effect during the six months prior to taking the survey. As with the RAPI mean score, the percentages utilized offer a comparative tool, but not definitive findings as to the complexity or severity of each effect listed.

Three issues have been followed since 1992: 1) drinking problems in general; 2) missing classes due to alcohol use; and 3) homework problems due to alcohol use. Findings from 1992 indicated that in all three cases a smaller percentage of respondents indicated they would have such problems than actually reported having the problems. In other words, respondents appeared to have a blind spot when it came to perceiving their risk of negative alcohol-related problems. In 1995, this idea of a blind spot held true for two of the three issues: drinking problems in general, and homework problems due to alcohol use. Respondents were more accurate in their perceptions regarding missing classes due to alcohol use.

In 1998, respondents were more accurate in their perceptions for both missing classes due to alcohol use and drinking problems in general, but still were not making the connection between drinking and homework problems due to alcohol use. This pattern repeated itself in 1999. Respondents seemed more self-aware when it came to drinking problems in general and about missing classes due to alcohol use; but while $6.9 \%$ indicated they felt it likely they would ever be unable to complete homework due to drinking, $17.8 \%$ actually reported that they were unable to do homework (or study for a test) due to drinking. (See Table 27.)

Table 27: Perceived Risks vs. Actual Occurrences of Negative Alcohol Effects
RAPI and APRA Measures Compared (1992/1995/1998)

|  | APRA: \% indicating any likelihood of experiencing this effect in the next four years |  |  |  | RAPI: \% indicating even one occurrence of effect during the past six months |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issue | 1992 | 1995 | 1998 | 1999 | 1992 | 1995 | 1998 | 1999 |
| Drinking problems | 3.1 | 3.7 | 11.0 | 11.2 | 10.6 | 8.4 | 9.2 | 10.7 |
| Missing class | 12.0 | 17.7 | 24.2 | 23.3 | 19.6 | 18.1 | 20.4 | 18.2 |
| Not completing homework | 4.3 | 3.1 | 9.2 | 6.9 | 16.7 | 18.1 | 20.2 | 17.8 |

## Typical Occasion Alcohol Use and Western Grade Point Average

A regression analysis of the 1999 Lifestyles Survey findings indicated that a significant predictor of Western GPA was the typical number of drinks a student consumed on a given weekend night ( $\rho=.001, \beta=-.263, \mathbf{R}^{2}=.07$ ). Researchers also returned to 1998 Lifestyles Survey data and replicated the analysis completed on 1999 data. Findings indicated similar patterns. In 1998, students who drank in moderation on typical occasions had higher Western GPA's than those who drank more excessively on typical occasions.

These findings are interesting in that the 1998 cohort was demographically dissimilar to the 1999 cohort. In other words, drinking in excess on typical occasions appeared to be the issue, not whether a student lived on- or off-campus, or whether the student was under or over the legal drinking age. The findings lead to a simple conclusion: there is a strong correlation between alcohol consumption and Western GPA. Students who drink less have higher GPA's; students who drink more have lower GPA's. (See Table 28.)

Table 28: Western GPA by Alcohol Use Groups
(typical number of drinks consumed on a given weekend night, 1998 and 1999 compared)

| 1998 |  | 1999 |  |
| :---: | :---: | :---: | :---: |
| Use Group | WWU GPA | Use Group | WWU GPA |
| 0 drinks | 3.26 | O drinks | 3.20 |
| 1-2 drinks | 3.13 | 1-2 drinks | 3.00 |
| 3-4 drinks | 3.01 | $3-4$ drinks | 2.85 |
| 5-6 drinks | 2.85 | 5-6 drinks | 2.83 |
| 7+drinks | 2.86 | 7+drinks | 2.74 |

## Drug Use

Use of cocaine (or crack) among Western students is practically nonexistent, with less than $2 \%$ indicating any use whatsoever. Use of LSD is similarly low, with use less than $3 \%$. These figures are similar to previous year's survey findings. The percent of Western students indicating they have ever used marijuana decreased from $31 \%$ in 1995 to $29 \%$ in 1998 to $25 \%$ in 1999. The percent of Western students indicating they had smoked tobacco decreased from $41 \%$ in 1998 to $32 \%$ in 1999. (See Table 29.)

Table 29: "During the past six months, how often have you used each of the following drugs?"
Drug Use at Western (1992/1995/ 1998/1999 compared)

|  | never |  |  |  | < once a month |  |  |  | 1-3 times/month |  |  |  | more often |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 | '92 | '95 | '98 | '99 |
| Marijuan | 4.6 | 68.9 | 71.3 | 75.5 | 13. | 14. | 13.1 | 12.8 | 7.2 | 10.7 | 8.7 | 6.1 | 4.5 | 6.4 | 6.9 | 5.6 |
| Cocaine | 97.7 | 98.3 | 98.1 | 7.4 | 2.0 | 1.4 | 1.1 | 1.5 |  |  | 0.7 | 0.6 | 0.2 |  | 0.2 | 0.6 |
| LSD | 92.2 | 93.2 | 92.8 | 95.9 | 6.1 | 6.2 | 5.9 | 2.9 | 1.5 | 0.6 | 1.3 | 1.2 | 0.2 | 0.4 |  | 0.0 |
| Tobacco |  |  | 59.4 | 8.1 |  |  | 12.8 | 11.1 |  | - | 12.5 | 8.5 |  |  | 15.4 | 12.3 |
| Other | 92.0 | 91.1 | 88.4 | 98.8 | 5.6 | 6.2 | 4.2 | 0.3 | 1.2 | 2.2 | 3.4 | 0.9 | 1.3 | 0.4 | 4.1 | 0.0 |

## Perceptions

Of particular importance to the alcohol and drug abuse prevention programs at Western are students' perceptions of the alcohol and drug use of other students. Strategies utilized by such programs as WE CAN 2000 are based on the concept of the "imaginary peer," that mythical group often referred to as "everybody," as in "everybody smokes pot," or "everybody drinks." The problem with the imaginary peer is that he/ she often drinks more alco-
hol and smokes more marijuana than students actually report drinking and smoking. By pointing out that the facts don't support the perceptions, education programs sponsored through the Prevention and Wellness Center debunk the drinking standards set by these imaginary peers. Students, for instance, usually only have 1 or 2 drinks on a typical weekend, not 3 or 4 . Such facts can help students make better decisions regarding their own drinking patterns, basing them on facts, not myths.

The findings in this section of the Lifestyles Survey report will point out that while positive strides have been made at Western in increasing students' awareness, that the power of the imaginary peer is still strong. Students still have a tendency to overestimate, sometimes grossly, how often and how much other students drink or use marijuana.]

## Students Estimate the Drinking Frequency of Other Students

As they were asked in 1998, in 1999 Lifestyle Survey respondents were asked: "How often do you think students typically consume alcohol?" In 1999, most respondents thought other students drank 1-2 times a week ( $63 \%$ ). As actually reported, most students drank 2-3 times a month (34\%). As in 1998, no 1999 respondents reported that their peers never drank. As actually reported, $22 \%$ reported not drinking at all. The main difference between 1998 and 1999 findings was that in one category-2-3 times a month-the estimated frequency and actual frequency reported were quite close. Overall, however, both 1998 and 1999 findings indicated that students' estimations of how often other students drink were not close, but rather grossly overestimated. (See Table 30.)

Table 30: How Often Students Actually Reported Drinking Contrasted to How Often Respondents Thought Other Students Drank (1998/1999 compared)

| Actually reported | '98 | '99 | Estimated by peers | '98 | '99 |
| :--- | :---: | :---: | :--- | :---: | :---: |
| not at all | 22.3 | 21.9 | never | 0.0 | 0.0 |
|  | - |  | less than once a month | 0.6 | 0.0 |
| once a month | 12.5 | 12.2 | once a month | 7.9 | 3.8 |
| $2-3$ times a month | 29.4 | 33.7 | $2-3$ times a month | 41.9 | 31.0 |
| $1-2$ times a week | 24.7 | 22.2 | $1-2$ times a week | 47.3 | 62.6 |
| more often | 11.0 | 11.1 | everyday | 2.3 | 2.6 |

## Students Estimate the Frequency of Marijuana Use of Other Students

In both 1998 and 1999, Lifestyle Survey respondents were asked: "How often do you think students typically use marijuana?" In 1999, most respondents thought other students used marijuana once a month or less ( $42 \%$ ). As actually reported, most students did not use marijuana at all ( $76 \%$ ). Compared to 1998, respondents in 1999 were even more likely to overestimate marijuana use. As with alcohol, the most grossly underestimated use category was "not at all." (See Table 31.)

Table 31: How Often Students Reported Using Marijuana Contrasted to How Often Respondents Thought Other Students Used Marijuana

| Actually reported | '98 | '99 | Estimated by peers | '98 | '99 |
| :--- | :---: | :---: | :--- | :---: | :---: |
| not at all | 71.3 | 75.5 | not used | 2.6 | 2.1 |
| once a month or less | 18.0 | 14.5 | once a month or less | 55.0 | 42.3 |
| 2-3 times a month | 3.8 | 4.4 | $2-3$ times a month | 26.9 | 36.6 |
| more often | 6.9 | 5.5 | $1-2$ times a week | 14.0 | 12.9 |
| - | - | - | everyday | 1.5 | 6.0 |

## Students' Perceptions of Other Students Drinking Behaviors

In both 1998 and 1999, survey respondents were asked to make their best estimate of the percentage of Western students that consume no alcoholic beverages at all, and the percentage that consumed 5 or more drinks at a time on at least one occasion in the last two weeks (high risk consumption). Respondents entered an actual figure, anywhere from $0 \%$ to $100 \%$. For each question and cohort, an average was calculated.

## Non-drinkers

In 1998 the averaged response from survey respondents was that $23.6 \%$ of other Western students did not drink at all. In 1999, the averaged response was that $24.7 \%$ of other Western students did not drink at all. This finding was not statistically significant.

## High risk drinkers

In 1998 the averaged response from survey respondents was that $41.6 \%$ of other Western students drank 5 or more drinks at a time on at least one occasion. In 1999, the averaged response was $36.3 \%$ (which constitutes a percentage decrease of $13 \%$ ). This finding was statistically significant [sig. (2-tailed) =.003], and indicates a move toward more accurate perception, because in actuality less than $20 \%$ of students typically drink 5 or more drinks at a time. While it would be unlikely for perception and actuality to arrive at the same figure, movement towards accuracy is definitely the direction for which social norms marketers strive. (See Figure 3.)


## Students' Personal Attitudes towards Alcohol Compared to the Attitudes they Perceive other Students Have towards Alcohol

In 1998 and 1999, Lifestyle Survey respondents were presented a 5-point scale representing various attitudes one might have towards alcohol and asked which of the statements best represented their personal attitude. A majority of respondents ( $55 \%$ ) indicated that "occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities." Many respondents indicated that "drinking is all right, but not getting drunk." Additionally, some respondents indicated that "drinking is never a good thing to do."

The above figures were a considerable contrast to the attitudes that respondents thought other students had. About three-quarters of respondents thought other students thought that "occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities." Few respondents thought that other students thought "drinking is all right, but not getting drunk." Conversely, a surprising number of respondents thought that other students thought "occasionally getting drunk is okay even if it does interfere with academics or responsibilities." The main difference between the 1998 and 1999 findings was that only $4.8 \%$ of 1999 respondents thought other students thought "frequently getting drunk is okay," while in 1998 that figure was 10.4\%. (See Table 32.)

Table 32: Personal Attitudes ("Which state best represents YOUR attitude?) vs. Perceived Attitudes ("Which statement best represents the most common attitude among WESTERN STUDENTS
IN GENERAL?"):

| About Alcohol | $\begin{array}{lr} \text { Personal } & \text { attitude } \\ 1998 & 1999 \end{array}$ |  | Perceived attitude in others <br> 1998 <br> 1999 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 1. Drinking is never a good thing to do | 8.1 | 9.1 | 0.2 | 0.0 |
| 2. Drinking is all right but a person should not get drunk | 30.7 | 31.5 | 4.8 | 5.2 |
| 3. Occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities | 55.3 | 54.7 | 72.3 | 76.2 |
| 4.Occasionally getting drunk is okay even if it does interfere with academics or responsibilities | 2.2 | 0.7 | 12.3 | 13.9 |
| 5. Frequently getting drunk is okay if that's what the individual wants to do | 3.6 | 4.0 | 10.4 | 4.8 |
| About Marijuana |  |  |  |  |
| 1. It is never a good thing to use marijuana | 47.0 | 47.2 | 2.6 | 3.0 |
| 2.Trying it out one or two times is okay as long as it doesn't interfere with academics or other responsibilities | 18.8 | 19.1 | 26.8 | 29.3 |
| 3. Occasional use is okay as long as it doesn't interfere with academics or other responsibilities | 26.3 | 26.6 | 56.3 | 53.6 |
| 4. Occasional use is okay even if it does interfere with academics or responsibilities | 0.3 | 0.3 | 6.6 | 6.9 |
| 5. Frequent use is okay if that's what the individual wants to do | 7.6 | 6.9 | 7.8 | 7.2 |

## Students' Personal Attitudes towards Marijuana Use Compared to the Attitudes they Perceive other Students Have towards Alcohol

Lifestyle Survey respondents were also presented a 5-point scale representing various attitudes one might have towards marijuana use and asked which of the statements best represented their personal attitude. A majority of respondents ( $47 \%$ ) indicated that "it is never a good thing to use marijuana." A little more than a quarter of respondents indicated that "occasional use is okay as long as it doesn't interfere with academics or other responsibilities." Additionally, quite a few respondents indicated that "trying it one or two times is okay as long as it doesn't interfere with academics or responsibilities."

As with the alcohol findings presented above, personal attitudes were in sharp contrast to the attitudes respondents thought other students had towards marijuana. Over half of respondents thought other students thought that "occasional use is okay as long as it doesn't interfere with academics or other responsibilities." Over a quarter of respondents felt that other students thought "trying it one or two times is okay as long as it doesn't interfere with academics or responsibilities." Most telling, however, was the scant number of respondents ( $3 \%$ or less) that thought other students thought "it is never a good thing to use marijuana." (See Table 32 on previous page.)

## Sexual Activity, Consent, and Alcohol Use

In 1998 and 1999 Lifestyles Survey respondents were asked questions pertaining to sexual activity and the role alcohol may or may not have played in decisions to engage in sexual behavior (with full sexual activity defined as vaginal, oral, or anal intercourse).
Forced Sex (Physical)
Respondents were asked: "Have you ever engaged in full sexual activity with someone when you didn't want to because he or she threatened or used some degree of force (twisting your arm, holding you down, etc.) to make you?" Not too many respondents reported having experienced physically-forced sex (under $4 \%$ ). Nor was there much difference in the percentages as reported by gender or age category.
Forced Sex (Psychological)
Respondents were asked: "Have you ever engaged in full sexual activity with someone when you didn't want to because you were overwhelmed by his or her continual arguments and pressure?" Slightly more respondents reported having psychologically-forced sex ( $6 \%$ in 1998 and $7 \%$ in 1999). There was also some slight difference in response by gender and age category, with females and legal-aged students reporting the circumstance more than males or under-aged students.
Sex Under the Influence (Coerced)
Respondents were asked: "Have you ever engaged in full sexual activity with someone when you didn't want to because he or she got you drunk or high?" Again, not too many respondents reported feeling coerced for sex while drunk or high (less than $5 \%$ ). Nor was there very much difference in the percentages as reported by gender or age category.

## Sex Under the Influence (Poor Judgment/Unable to Resist)

Respondents were asked: "Have you ever engaged in full sexual activity with someone when you didn't want to because you were too drunk or too high to use your better judgment or to resist?" This circumstance was the most likely to be reported by Lifestyle Survey respondents, with $11 \%$ in 1998 and $14 \%$ in 1999 reporting they had had sex when they didn't want to because they were too drunk or high. There was some difference in response by gender in 1999, with males more likely to report the circumstance than females; as well as some difference by age category in 1999, with legal-aged students most likely to report the circumstance than under-aged students. (See Table 33.)

Table 33: Sexual Activity, Consent and Alcohol Use
(Percent reporting they had experienced each item)
(1998/1999 compared)

| item | overall |  | male |  | female |  | <21 |  | 21+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '98 | '99 | '98 | '99 | '98 | '99 | '98 | '99 | '98 | '99 |
| Forced sex (physical) | 3.9 | 3 | 3.5 | 2 | 4.2 | 3.9 | 3.2 | 2.2 | 4.3 | 3.3 |
| Forced sex (psychological) | 6.3 | 7.2 | 5.4 | 3.3 | 7.2 | 10.6 | 4.7 | 4.3 | 7.3 | 8.3 |
| Sex under the influence (coerced) | 4.8 | 3.6 | 4.5 | 2.6 | 5.2 | 4.5 | 4.4 | 2.2 | 5.2 | 4.2 |
| Sex under the influence (poor judgment) | 10.6 | 13.6 | 10.4 | 15.7 | 10.8 | 11.7 | 8.7 | 10.8 | 11.9 | 14.6 |

## Summary

Changes noted between 1998 and 1999 findings included the reasons students drank. In 1998 the number one reason listed was to get drunk or high, while in 1999 was to relax. In 1999, drinking to get drunk or high saw a percentage decrease of $25 \%$. In addition, how often students drank decreased, with slightly fewer drinking 1-2 or 3-4 times a week in 1999 than they did in 1998. Males, heavier drinkers overall than females, also showed signs of increased moderation, with slightly more reporting they did not drink at all or drank once a month.

Compared to 1998 findings, on typical occasions 1999 survey respondents were more likely to drink in moderation, and less likely to drink at high risk levels or to the point of potential alcohol poisoning. Males, too, were less likely to drink at high risk levels on typical occasions in 1999, though about as likely to drink to the point of potential alcohol poisoning. Trends were similar for peak occasion drinking: fewer students high risk drank or drank to the point of potential alcohol poisoning. This was true regardless of gender, though males continued to consume over twice as much alcohol on peak occasions as females.

Whether typical or peak, when categorized by gender and age, the heaviest drinking students continued to be under-aged males-though there was one encouraging finding: a percentage decrease of $22 \%$ for under-aged males who drank to the point of potential alcohol poisoning. However, as there were no first-time freshmen in the 1999 survey, the finding may be transient-although it might also indicate that the novelty of college drinking begins to lose impact for second-year students.

Lifestyles Surveys have included questions which measure the negative effects of alcohol use, borrowed from the Rutgers Alcohol Problem Inventory (RAPI), a nationally administered survey instrument. Between 1998 and 1999, the percentage decrease in students experiencing at least one of the seventeen listed RAPI items was $26 \%$ In addition, researchers have computed a RAPI Mean in each survey year, a synthesized figure used for comparison purposes. In 1999, the RAPI Mean was 3.9, down from 4.1 in 1998, and 4.5 in 1995.

In addition to RAPI items, the Lifestyles Survey has included items from the Assessment of Perceived Risks of Alcohol (APRA), a questionnaire that asks students what they consider their chances of experiencing certain risks due to alcohol use while in college. Combining APRA and RAPI findings allowed researchers to compare perceived risks to the actual occurrences of negative alcohol effects. In both survey years, the percentage of students predicting alcohol would negatively affect their class attendance was fairly close to the percentage that actually did miss classes. On the other hand, the percentage of students predicting alcohol would negatively affect their ability to complete homework was fairly distant from the percentage of students actually not able to complete homework. In 1999, for instance, there was a $61 \%$ difference between students who predicted alcohol use would negatively affect their homework and those for whom alcohol use actually did affect their homework. When it comes to their academics, students are simply not making the connection between drinking and negative consequences. Regardless of gender, age, or living situation, findings indicate that the more drinks a student consumes on typical occasions, the lower his or her grade point average.

Relatedly, Lifestyles Survey questions explored the important area of students' perceptions of how often and how much other students drank and used marijuana. Findings from 1998 and 1999 indicated that while positive strides have been made in increasing awareness, students still have a tendency to overestimate, sometimes grossly, other students' drug and alcohol use. The reality is that most students drink modestly, in both frequency and amount, yet students have a "perception gap," a powerful feeling that others drink alcohol or smoke marijuana more than they themselves do.

Questions about drug use were included in all Lifestyles Project Surveys. In 1999, the percentage decrease in student tobacco use was $22 \%$. Regarding harder drugs, very little use of LSD and cocaine (or crack) was noted. Moreover, in 1999 the percentage decrease in student marijuana use was $14 \%$.

Approximately $14 \%$ of Western students indicated they had had unwanted sex because alcohol or drugs had influenced their better judgement. Less than $4 \%$ indicated they had had unwanted sex because they had been coerced into it while high or drunk. About 3\% indicated they had been forced into unwanted sex through the threat of physical force.

## Discussion

One of the most important aspects of the Lifestyles Survey is also one easy to overlook: that the survey is being done at all. Most higher education alcohol prevention programs are reactive and event-based, responding to vandalism, drunken resident hall fracases, etc., as they happen, often mistaking the messages that such events send. In contrast, Western's alcohol prevention program is proactive and widely focused. It is data-based and
data-driven. From surveys and studies, administrators and prevention specialists form profiles of drinkers and drinking norms based on the slow, incremental assessment of large populations over time. These profiles are used to "market" accurate campus drinking norms, norms that demonstrate the typical student at Western does not abuse alcohol. Though an unusual approach, it is also the heart of Western's program, one that has already begun to produce results (as documented in this report) as well as receive national recognition. In 1995, Prevention and Wellness Services was chosen by the Harvard School of Public Health (based on a nomination by the U.S. Department of Education) as one of the five best higher education alcohol abuse programs in the nation. In 1999, the program was further acknowledged when it received over \$600,000 in grant money from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in order to test (along with the University of Washington and The Evergreen State College) a combined social norms marketing and skills training approach to reduce the negative effect of alcohol abuse and consumption

There are reasons why the program has received positive attention. For instance: whereas the reactive approach to student alcohol abuse often misconstrues the situation as better or worse than it is-because counselors see only what they see-the proactive approach is based on real facts gathered through proven survey research methodologies. In the reactive system, students in trouble through alcohol may claim that "everybody is drinking." Prevention specialists at Western, however, can counter this allusion to the imaginary peer-the concept that students see in their minds a peer who drinks more than they themselves do. Because Western's program is based on hard data, a prevention specialist at Western can indicate with the great confidence that most students at Western, if they drink at all, drink only in moderation.

## Endnotes

${ }^{1}$ The 1992 Lifestyles Survey was a collaboration between the Office of Institutional Assessment and Testing, the Primary Prevention/Wellness Center, and Dr. G. Alan Marlatt, Director of the Addictive Behaviors Research Center at the University of Washington.
${ }^{2}$ Copies of the first survey report, WWU Lifestyles Project: Patterns of Alcohol and Drug Consumption and Consequences Among Western Washington University Students, is available through the Office of Institutional Assessment and Testing, Old Main 120, MS: 9010, x3080.
${ }^{3}$ Presley, C.A., Meilman, P.W., \& Cashin, J.R. (1996). Alcohol and Drugs on American College Campuses (Use, Consequences, and Perceptions of the Campus Environment) Volume IV: 199294. The Core Institute Student Health Programs, Southern Illinois University at Carbondale, Carbondale, Illinois.
${ }^{4}$ Johnston, L.D., O'Malley, P.M., Bachman, J.G. (1993). National Survey Results on Drug Use from The Monitoring the Future Study, 1975-1992. Rockville, Maryland: National Institute on Drug Abuse, U.S. Department of Health and Human Services.
${ }^{5}$ Interpretation of findings that report the number of drinks consumed should be tempered by the fact that survey respondents were self-reporting; there was, in other words, no quantitative control over variables such as what individuals considered a "drink", nor any way of knowing if the reportees were keeping any kind of accurate count of the number of drinks they consumed.
${ }^{6}$ Presley, C.H. \& Meilman, P.W. (1992). Alcohol and Drugs on American College Campuses: A Report to College Presidents. Carbondale, Illinois: Southern Illinois University. Pg. 6.
${ }^{7}$ Ibid, Presley \& Meilman (1992): pg. 5.

## Appendix A:

Overall Typical and Peak Drinking Levels for All Survey Participants

## Typical Alcohol Consumption

"On a given weekend night, how much alcohol do you
typically consume?"

| Item | Overall |  |
| :--- | :---: | :---: |
| 0 drinks | 30.9 | 40.1 |
| $1-2$ drinks | 22.5 | 25.0 |
| $3-4$ drinks | 18.4 | 18.5 |
| 4 or fewer | $\mathbf{7 1 . 8}$ | $\mathbf{8 3 . 6}$ |
| 5+ drinks | 28.1 | 16.4 |
| $7+$ drinks* | 14.4 | 9.7 |

*Potential alcohol poisoning

## Peak Alcohol Consumption

"Think of the occasion
you drank the most this month:
how much did you drink?"

| Item | Overall |  |
| :--- | :---: | :---: |
| 98 | '99 |  |
| 0 drinks | 31.6 | 28.7 |
| $1-2$ drinks | 7.9 | 15.4 |
| $3-4$ drinks | 16.4 | 22.5 |
| 4 or fewer | 55.9 | 66.6 |
| 5+ drinks | 44.1 | 33.4 |
| $7+$ drinks* | 31.2 | 22.0 |

*Potential alcohol poisoning

The average number of drinks consumed on typical occasions was 2.98 in 1998 and 2.25 in 1999. Results from a 2-tailed t-test indicated statistical significance (sig. $=.000$ ).

The average number of drinks consumed on peak occasions was 4.56 in 1998 and 3.99 in 1999. Results from a 2-tailed t-test indicated statistical significance (sig. $=.027$ ).

