

by Henry Wechsler, Ph.D.; George W. Dowdall, Ph.D.; Andrea Davenport; and William Dejong, Ph.D. Harvard School of Public Health

Note: This report summarizes data collected from colleges and universities in 1993. In 1997 and 1999, these institutions were resurveyed, and the results were published in 1998 and 2000. The most recent results from the College Alcohol Study and links to an article comparing the 1993 and 1997 results are available at www.hsph.harvard.edu/cas/.

This document is one of many published by the Higher Education Center for Alcohol and Other Drug Prevention. The Center also provides technical assistance and conducts training workshops.

Introduction

This bulletin summarizes the findings of a new survey of college student drinking recently completed by the Harvard School of Public Health.

With data collected from a national sample of nearly 17,600 students at 140 four-year colleges and universities, the survey provides an estimate of the extent of binge drinking and a profile of the types of students most prone to alcohol-related problems.

This is the first study of college drinking that uses a representative national sample of both colleges and individual students. (*See the sidebar, Methodology.*) As a result, the findings reported here can be applied to all American four-year colleges, thereby providing a complete national portrait of student drinking behavior.

The bulletin has been written for administrators at institutions of higher education who are responsible for developing and implementing alcohol and drug policies on campus, including college presidents, vice presidents, deans of students, and deans of residential life.

Other members of the college community who have a special interest in substance use prevention – faculty, students, program directors, campus security, and other staff – will also find the bulletin to be a useful national overview of college student drinking patterns.

Principal findings from the survey, which are described more fully in the bulletin, include the following:

- Overall, 44 percent of U.S. college students engaged in binge drinking during the two weeks prior to the survey. (For men, binge drinking is defined as having five or more drinks in a row, and for women as having four or more drinks in a row.)
- The extent of binge drinking varied widely among U.S. colleges, from a low of one percent of students to a high of 70 percent. At almost one-third of the colleges, more than half the students were binge drinkers during the past two weeks.
- Drinking patterns established in high school often persist during college. Compared to other students, college students who were binge drinkers in high school were almost three times more likely to be binge drinkers in college.
- Being white, involved in athletics, or a resident of a fraternity or sorority made it more likely that a student would be a binge drinker.
- Very few students – even those who binge drank three or more times during the past two weeks – said they had a problem with alcohol at the time of the survey.
- Compared to non-binge drinkers, a higher percentage of binge drinkers had experienced alcohol-related problems since the beginning of the school year.

“My roommate and I went to a party, and she got drunk. She hooked up with this guy from the fraternity and had sex with him that night. I couldn’t have stopped her because she would have gotten mad. The next day we found out that the guy is seeing someone else and is known all around campus for taking advantage of girls when they’re drunk.”

– Anonymous Respondent,
College Alcohol Study
Harvard School of Public
Health, 1993

The current level of binge drinking by U.S. college students is a serious problem, one that most school administrators will want to make a priority concern. However, administrators should not lose sight of the fact that the majority of students at four-year institutions – 56 percent nationally – either abstain or drink in moderation. This is a solid base on which to build for the future.

Patterns of Alcohol Use

Definitions

The student questionnaire defined a “drink” as a 12-ounce can or bottle of beer, a 12-ounce can or bottle of wine cooler, a four-ounce glass of wine, or a shot of liquor, either straight or in a mixed drink. “Binge” drinking was defined for men as drinking FIVE or more drinks in a row in the past two weeks, and for women as drinking FOUR or more drinks in a row. “Frequent” binge drinking was defined as binge drinking three or more times in the past two weeks.

Defining binge drinking differently by gender is justified by a comparison of alcohol-related problems (e.g., missing class, physical injury) reported by men and women binge drinkers. Women who report drinking four or more drinks in a row generally report the same frequency of alcohol-related problems as do men who report drinking five or more drinks in a row. By using the same five-drink standard to define binge drinking for both sexes, previous studies have underestimated the extent of problem drinking among college women.

Extent of Binge Drinking

Results of the survey confirmed that binge drinking is the most serious drug problem on college campuses. Overall, 44 percent of the students were binge drinkers. Among men, 50 percent were binge drinkers; among women the figure was 39 percent (see figure 1). (If the five-drink definition of binge drinking were used, only 3 percent of women college students would be classified as binge drinkers, an underestimate consistent with previous studies that do not use the four-drink definition.) Two in five students drank during the school year but were not binge drinkers. One in six students did not drink at all.

About half the binge drinkers, or about one in five students overall, were frequent binge drinkers – that is, they had been binge drinking three or more times in the past two weeks. Among these frequent binge drinkers:

- 61 percent of the men and 39 percent of the women drank alcohol on ten or more occasions in the past 30 days, and
- 70 percent of the men and 55 percent of the women reported they were intoxicated three or more times in the past month.

For these students, intoxication is often the main goal. Of all frequent binge drinkers, 73 percent of the men and 68 percent of the women cited drinking to get drunk as an important reason for drinking.

The extent of binge drinking varied widely among the 140 schools in the study, from a low of one percent of students to a high of 70 percent. More than half the students were binge drinkers at 44 (31 percent) of the schools.

Profile of Binge Drinkers

The survey revealed several factors that predict which students are most likely to be binge drinkers. Among the most important factors was whether students were binge drinkers in high school. These students were almost three times more likely to be binge drinkers in college.

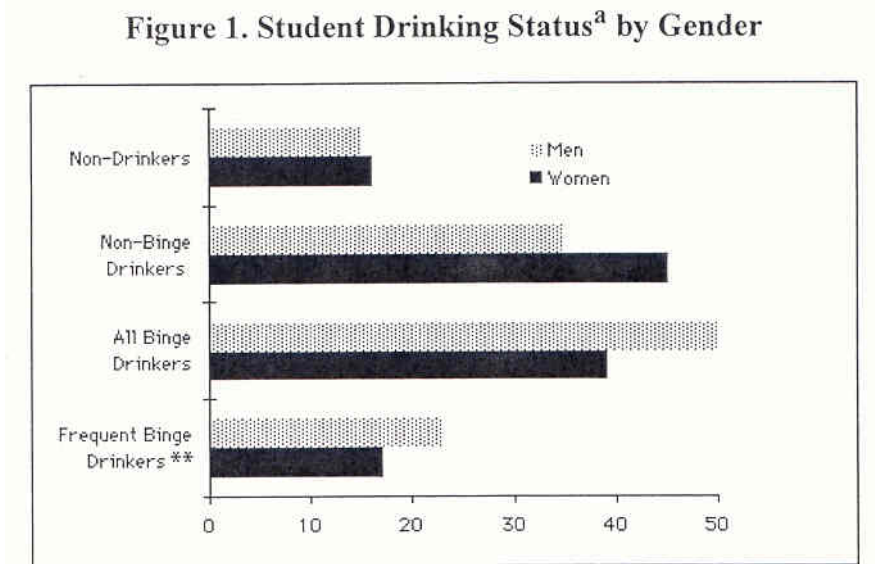
Other predictors included the following:

- *Race/ethnicity.* White students were over twice as likely to be binge drinkers compared to other racial/ethnic

“Several people were drunk at this fraternity party. Some of the guys were kicked out because they were so drunk they were urinating on the walls. The entire place reeked of beer, and people were covered in it.”

– Anonymous Respondent
College Alcohol Study
Harvard School of Public
Health, 1993

- groups.
- *Religion.* Students who said that religious participation is not very important to them were more than twice as likely to be binge drinkers compared to other students.
 - *Athletics.* Students who said that athletic participation was very important or important to them were almost one-and-a-half times more likely to be binge drinkers.
 - *Fraternity/sorority residence.* Residents of fraternities or sororities were four times as likely to be binge drinkers compared to other students.



^a Women binge drinkers report having four or more drinks in a row at least once during the last two weeks. Men binge drinkers report having five or more drinks in a row.

^b A subset of all binge drinkers, frequent binge drinkers report binge drinking three or more times during the last two weeks.

Contrary to conventional wisdom, a student’s year in school was NOT a significant predictor of binge drinking. The percentage of students who were binge drinkers was nearly uniform from freshman through senior year, despite the fact that students under 21 are subject to the minimum drinking age law.

Methodology

This report summarizes data collected from colleges and universities in 1993. In 1997 and 1999, these institutions were resurveyed, and the results were published in 1998 and 2000. For the most recent results from the College Alcohol Study, and for links to an article comparing the 1993 and 1997 results, please go to www.hsph.harvard.edu/cas/.

Data for this research were gathered in 1993 as part of the College Alcohol Study conducted by the Harvard School of Public Health, with funding by the Robert Wood Johnson Foundation.

Selection of Schools

The Harvard team initially selected a random sample of 179 four-year colleges and universities. Nine of these schools – including seminaries, military schools, and allied health schools – were considered inappropriate for the study and were dropped from the sample. Ten women’s colleges and 15 schools with fewer than 1,000 students were then added to the sample to ensure that such schools were sufficiently represented.

Ultimately, 140 schools (72 percent of the final sample of 195) agreed to participate and to draw a random sample of their students in accordance with the research team's requirements.

The participating schools are located in 40 states and the District of Columbia.

Selection of Students

Random samples of students at each school were mailed a self-administered questionnaire, with a total sample of 28,709.

A total of 3,082 students were dropped from the sample due to school reports of incorrect addresses, withdrawals from school, or leaves of absence.

A total of 17,592 students returned the questionnaires, for a response rate of 69 percent.

Self-Assessment of Drinking Behavior

No matter what their level of alcohol consumption, very few students said they currently have a problem with alcohol. Two-tenths of one percent of the total sample, including only six-tenths of one percent of frequent binge drinkers, classified themselves as a "problem drinker."

A larger percentage of frequent binge drinkers – 26 percent of men and 17 percent of women – reported that they had ever had a drinking problem. Yet, only three percent of these frequent binge drinkers had ever sought help for a problem with alcohol.

Consequences of Binge Drinking

As expected, the survey showed that a higher percentage of binge drinkers had experienced alcohol-related problems since the beginning of the school year than had non-binge drinkers.

Alcohol-related problems affected both sexes about equally. As shown in table 1, women binge drinkers reported experiencing roughly the same level of alcohol-related problems as men binge drinkers. There were two exceptions: men more often reported damaging property and getting in trouble with the police.

Frequent binge drinkers had the most serious problems. For example, frequent binge drinkers were *seven to 16 times* more likely than non-binge drinkers to have missed class, gotten behind in their school work, engaged in unplanned sexual activity, not used protection when having sex, gotten in trouble with campus police, damaged property, or been hurt or injured.

There was also a positive relationship between binge drinking and driving after drinking. Among frequent binge drinkers, 62 percent of the men and 49 percent of the women said they had driven a car after drinking. Approximately half these students said they had ridden with a driver who was high or drunk.

The percentage of students who had experienced five or more different problems (out of a possible 12, excluding having a hangover, but including driving after drinking) is shown in figure 2. Nearly one-half of the frequent binge drinkers reported having had five or more problems since the beginning of the school year.

"An alcohol and other drug prevention program has to connect to campus-wide issues, such as campus violence, damage in residence halls, and sexual assaults. This helps people understand that the misuse of alcohol is part of a larger picture."

– Eileen Coughlin Associate
Vice President Student
Services Northern Arizona
University

Frequent binge drinkers were 10 times more likely than non-binge drinkers to have driven after drinking alcohol, and they were 16 times more likely than non-binge drinkers to have ridden with a driver who was high or drunk. There was also a clear relationship between drinking status and other substance use: abstainers were the least likely to have used other drugs during the past year, while frequent binge drinkers were the most likely to have used other drugs. Non-binge drinkers and binge drinkers were at intermediate levels of other drug use. As shown in table 2, this pattern was especially strong for the two most commonly used substances – cigarettes and marijuana.

“One weekend my roommate went out to a fraternity party after having several beers. While she was there one of the brothers gave her a cup of beer to finish. It turns out the drink was laced with LSD. She had never done drugs before and reacted violently. I got a call at 3:30 a.m. to go to the emergency room to be with her.”

– Anonymous Respondent College Alcohol Study Harvard School of Public Health, 1993

Table 1. Percentage of Binge Drinkers^a Reporting Alcohol-Related Problems Since the Beginning of the School Year by Gender

Alcohol-Related Problem	Percentage ^b	
	Women	Men
General Disorientation		
Have a hangover	81%	82%
do something you later regretted	48	50
Forget where you were or what you did	38	41
Sexual Activity		
Engage in unplanned sexual activity	26	33
Not used protection when you had sex	15	16
Violence		
Argue with friends	29	32
Damage property	6	24
Disciplinary Action		
Get into trouble with campus or local police	4	10
Personal Injury		
Get hurt or injured	14	17
Require medical treatment for an alcohol overdose	<1	1
School Performance		
Miss a class	42	45
Get behind in school work	31	34

^a Women binge drinkers report having four or more drinks in a row at least once during the last two weeks. Men binge drinkers report having five or more drinks in a row.

^b Percentage of binge drinkers who report that, since the beginning of the school year, their drinking has caused them to experience each of the problems one or more times.

Implications for College Administrators

Binge drinking is a widespread phenomenon on most college campuses, a problem that not only interferes with the mission of higher education but also carries with it serious risks of disease, injury, and death. Findings from the Harvard survey suggest that college and university administrators will want to intensify their search for new approaches to preventing both underage and binge drinking.

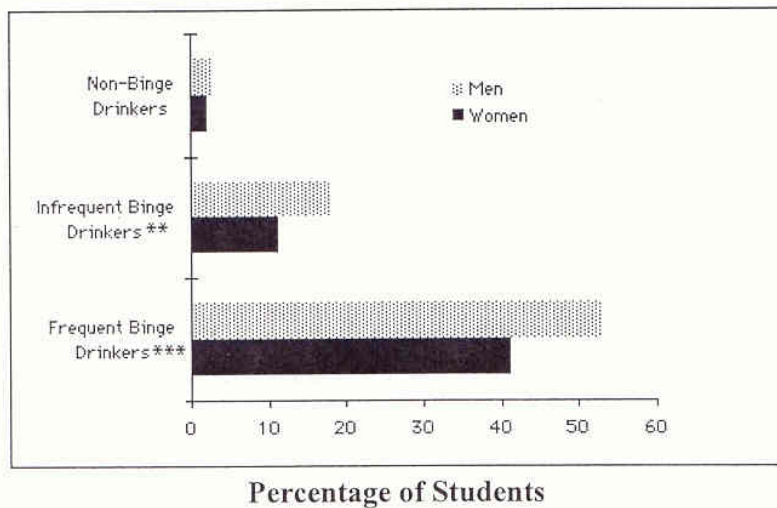
To date, school administrators have emphasized educational responses to this problem. These efforts should continue, but they will not be sufficient. Years of experience have taught substance use prevention experts that a broader approach is needed, one that seeks to change the social, legal, and economic environment in which students make decisions about their alcohol use.

What students choose to do will be shaped by campus social norms, the accessibility of alcohol to students, the extent to which school regulations and state laws are firmly enforced, and the availability of non-alcohol social options. All of these environmental factors are subject to influence through policy at the school and community level.

“My roommate came home very drunk. I didn’t want to deal with it, because I had three tests the next day and had planned to study instead of playing ‘Mom.’ I was really scared, though. She was throwing things everywhere and crying.... I flunked one test and skipped another, I was so drained.”

– Anonymous Respondent
College Alcohol Study
Harvard School of Public Health, 1993

Figure 2. Percentage of Students Experiencing Five or More Alcohol-Related Problems Since the Beginning of the School Year by Drinking Status^a and Gender



^a Women binge drinkers report having four or more drinks in a row at least once during the last two weeks. Men binge drinkers report having five or more drinks in a row.

^b Infrequent binge drinkers report binge drinking one or two times during the last two weeks.

^c Frequent binge drinkers report binge drinking three or more times during the last two weeks.

^d Percentage of students who report that, since the beginning of the school year, their drinking has caused them to experience five or more alcohol-related problems.

With this broader framework in mind, school administrators may want to consider taking action on a number of policy fronts:

1. *Establish a policy of “zero tolerance” for alcohol-related violence.* Violence includes not only acquaintance rape, assault, and fighting, but also alcohol-impaired driving and vandalism. A “zero-tolerance” policy, by focusing on the problems caused by alcohol misuse rather than drinking per se, will have strong support from faculty, alumni, and the large number of students who do not binge drink.

2. *Regulated the conditions of alcohol use on campus.* Especially worrisome are those locations where underage and intoxicated students are served alcohol, such as fraternities and sororities. On some campuses, measures to reduce the availability of alcohol in these settings may be unpopular but will be essential nevertheless.
3. *Work with the local community to limit student access to alcohol and to support the efforts of local law enforcement.* The best on-campus policies cannot succeed if off-campus retail outlets continue to serve alcohol to underage or intoxicated students, or if students are shielded from the law enforcement consequences of their behavior. School administrators will want to reach out to local officials to invite their participation in developing a comprehensive and community-wide approach to this problem.
4. *Eliminate sponsorship of events by the alcohol industry and other on-campus marketing.* Advertising and promotion are the chief means by which the alcohol industry communicates its message to students. Given the profits that the industry makes from sales to underage and problem drinkers, and given the mayhem that alcohol misuse creates on college campuses, many school administrators have decided it is inappropriate for them to collaborate in the industry’s marketing activities.
5. *Enforce the minimum drinking age law with firmness and consistency.* Other studies have shown that the age 21 law is half-heartedly enforced on many campuses. In fact, many schools do not even confiscate fake IDs that students are caught using. Lax enforcement sends a mixed message to students that the law is not taken seriously and can be disregarded with impunity.

“We should say to our students, ‘...if you put yourself or anybody else from our community at risk, this is what we are going to do.’ We don’t do that. I don’t know of any [college] community that actually does that.”

– Patrick Kilcarr, Director
Center for Substance Abuse
Prevention Georgetown
University

Parents also have an important role to play. In particular, parents can ask tough questions of college administrators about the extent of binge drinking and alcohol-related violence on campus, and they can enroll their children in schools that are dealing with this problem aggressively.

As the consequences of student drinking become better known, and as public concern continues to mount, school administrators will be held accountable for reducing alcohol-related violence and other problems resulting from the misuse of alcohol by their students. If administrators adopt the policies described here, they can go a long way toward reducing alcohol-related problems among their students and creating a campus environment that supports their mission – preparing students for the future.

Table 2. Percentage of Students Reporting Other Substance Use Within the Past Year by Drinking Status^a

Substance ^c	Percentage ^b Student Drinking Status			
	Non-Binge Drinkers	Non-Binge Drinkers	Binge Drinkers	Binge Drinkers ^d
Marijuana	2	13	31	55
Amphetamines	<1	2	4	10
LSD	<1	2	5	11
Other Hallucinogens	<1	2	5	12
Chewing Tobacco	<1	4	12	20
Cigarettes	6	22	42	59

^a Women binge drinkers report having four or more drinks in a row at least once during the last two weeks.

^b Percentage of students who report that they have used each drug within the past year.

^c This list excludes substances that were used by fewer than 10 percent of the frequent binge drinkers (crack cocaine, other cocaine, barbiturates, tranquilizers, heroin, other opiates, and anabolic steroids).

^d A subset of all binge drinkers, frequent binge drinkers report binge drinking three or more times during the last two weeks.

Resources

The Higher Education Center for Alcohol and Other Drug Prevention is a national resource center established by the U.S. Department of Education and managed by Educational Development Center in Newton, MA.

The Center's goal is to assist colleges and universities as they work to change campus cultures, foster environments that promote healthy lifestyles, and prevent student alcohol and other drug abuse.

The Center offers five types of services: 1) information services, 2) technical assistance, 3) training, 4) national meetings, and 5) publications. These services are available to all institutions of higher education free of charge. For additional information, contact the Center at the following address:

Higher Education Center for Alcohol and Other Drug Prevention
c/o Educational Development Center
55 Chapel St.
Newton, MA 02458-1060
Phone: (800) 676-1730 Fax: (617) 928-1537
E-mail: HigherEdCtr@edc.org
For more information, contact the U.S. Department of Education, Drug Prevention Program, 400 Maryland Avenue, S.W., Washington, DC 20202-6123

DRUG-FREE SCHOOLS AND CAMPUSES ACT

While college administrators have long been concerned about student alcohol and other drug use, the driving force behind recent prevention activity has been the passage of the Drug-Free Schools and Campuses Act, codified as Part 86 of EDGAR (34 CFR Part 86). Failure to meet the Part 86 of EDGAR requirements can put a school's federal funding in jeopardy.

Part 86 of EDGAR requires that every institution of higher education, as a condition of receiving any federal financial assistance, must provide the following information to each student and employee:

- a description of the health risks associated with the use of alcohol and illicit drugs;
- a description of any drug or alcohol counseling, treatment, or rehabilitation programs available to students and employees;
- standards of conduct that clearly prohibit the unlawful possession, use, or distribution of alcohol and illicit drugs by students and employees on school property or as part of any school activities;
- a description of the applicable legal sanctions under local, state, or federal law for the unlawful possession, use, or distribution of alcohol and illicit drugs;
- a clear statement that the school will impose disciplinary sanctions on students and employees who violate the standards of conduct; and
- a description of the sanctions, up to and including expulsion, termination of employment, and referral to local law enforcement.

The regulations also require schools to prepare a written review of their program every two years to 1) determine its effectiveness and implement any needed changes, and 2) ensure that the school's sanctions are being consistently enforced.

The written biennial review must be made available to anyone who asks for it.

The findings from the Harvard survey of college student drinking underscore the importance of school administrators adhering to the Part 86 of EDGAR requirements and developing a comprehensive, multifaceted approach to this problem.

OTHER PUBLICATIONS

The following publications are recommended for additional information on student binge drinking and assessing alcohol-related problems on campus:

Presley, C.A., Meilman, P.W., and Lyerla, R. *Alcohol and Drugs on American College Campuses: Use, Consequences, and Perceptions of the Campus Environment*. Carbondale, Illinois: Southern Illinois University, Core Institute, 1993. Available through the CORE Institute, Center for Alcohol and Drug Studies, Southern Illinois University, Carbondale, IL 62901.

Ryan, B.E., Colthurst, T., and Segars, L. *College Alcohol Risk Assessment Guide*. San Diego, California: University of California at San Diego, Alcohol, Tobacco, and Other Drug Studies, UCSD Extension, 1994. Available through Alcohol, Tobacco, and Other Drug Studies, UCSD Extension 0176, 9500 Gilman Drive, La Jolla, CA 92093.

OTHER RESOURCES

Network of Colleges and Universities Committed to the Elimination of Alcohol and Drug Abuse Office of Educational Research and Improvement U.S. Department of Education Washington, D.C. 20202

Established in 1987 by the U.S. Department of Education, the Network's purpose is to provide support to institutions of higher education that are establishing and enforcing policies to prevent the misuse of alcohol and other drugs. The Network has issued a set of standards that operate as criteria for institutional membership in the Network. Currently, over 1,500 institutions of higher education are members.

This bulletin is publication of the Higher Education Center for Alcohol and Other Drug Prevention. Funded by the U.S. Department of Education.

This bulletin was produced under Contract No. SS9-30-25-001. Views expressed are those of the contractor. No official support or endorsement by the U.S. Department of Education is intended or should be inferred. Publication No. ED/OPE95-8