Binge Drinking on America's College Campuses



Henry Wechsler, PhD Principal Investigator

The College Alcohol Study

Current Staff:

Henry Wechsler, PhD Principal Investigator

Meichun Kuo, ScD Research Specialist

Jae Eun Lee, DrPH Research Analyst

Karen Powers, MBA, MA Project Manager

Mark Seibring, BS Research Specialist

Jeff Hansen, BA *Programmer*

Past Staff:

Jeana Gledhill-Hoyt, MPH Research Specialist

Inkyung Baik, MPH Research Analyst

Andrea Davenport, MS Research Analyst

Barbara Moeykens, MS *Research Analyst*

Kathleen Kelley, MBA Research Assistant

Consultants:

Hang Lee, PhD Frank Chaloupka, PhD George Dowdall, PhD Anthony Roman, PhD Elizabeth Soloman, BA Martha Fay, MPH

With the Editorial Assistance of Burness Communications

With Design Assistance of Landesberg Design Associates

With Grant Support from The Robert Wood Johnson Foundation

Web Address:

www.hsph.harvard.edu/cas

E-mail:

hwechsle@hsph.harvard.edu



FINDINGS FROM THE HARVARD SCHOOL OF PUBLIC HEALTH COLLEGE ALCOHOL STUDY

Henry Wechsler, PhD Principal Investigator

Table of Contents

The Persistent Problem of Binge Drinking	I
The College Alcohol Study	3
Binge Drinking Defined	4
Is Binge Drinking Increasing?	4
What Are the Centers of Student	
Binge Drinking?	5
How Bingeing Students Harm Themselves	5
How Bingeing Students Harm Others	6
How Binge Drinking Affects Women	6
The Special Nature of Underage Drinking	6
The Sale and Marketing of Alcohol	
to College Students	7
What Colleges Can Do	7
Twelve-Step Program	8
Summing Up	9

10

College Alcohol Study Publications

The Persistent Problem of Binge Drinking

Alcohol abuse has been entrenched on America's campuses since the first colleges were chartered in colonial days. Yet, until recently, heavy college drinking has been largely ignored, tolerated, or winked at.

The Harvard School of Public Health College Alcohol Study (CAS) has begun to change that. Our landmark 1993 survey was the first national study to track just how widespread and harmful binge drinking had become. It put college binge drinking on the national agenda, where it has gained widespread public attention ever since.

Since 1993, our three national surveys have reported on the extent and impact of binge drinking on colleges across America. They have asked basic questions: What is binge drinking? How extensive is it? How does it affect students who binge drink and those who do not? Who is most likely to binge drink? How does the community contribute to the problem? What are the most promising solutions?

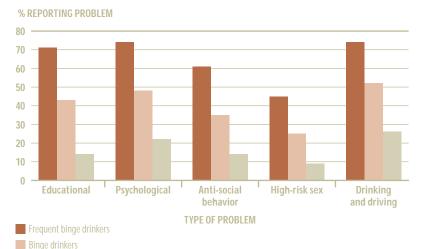
The College Alcohol Study has made major contributions to understanding the campus culture of heavy drinking. We introduced the term, "binge drinking," and changed the focus of attention from the use of alcohol in general to this form of drinking. We also introduced the concept of "second-hand effects," the harms

"When I drink, I do it for the sole purpose of getting drunk. I drink a large amount very quickly and don't even taste it. I don't really like the taste of liquor or beer. I enjoy the freedom and lack of self-conscious barriers when I'm drunk."

Non-binge drinkers

— College studen

Frequent binge drinkers are up to five times more likely than non-bingers to experience a range of problems.



inflicted on non-drinking students by others' binge drinking. These two concepts have helped focus national attention and sparked campus efforts to address the problem.

The Study defines binge drinkers as male students who had five or more and female students who had four or more drinks in a row at least once in a two-week period (the 5/4 measure). While five drinks may seem like a small quantity to some people, we have found

it to be a marker for the presence of problems experienced by students who drink alcohol. For example, frequent binge drinkers, nearly one-quarter of all students, account for over three-fifths of all the students who report being injured, committing vandalism, and experiencing problems with the police. The 5/4 measure represents a danger sign—a warning of health, social, economic, and legal consequences ahead.

Campus administrators, policymakers, and others now widely use the concept of binge drinking. For instance, the U.S. Surgeon General has included among the nation's health goals a 50 percent reduction in college binge drinking by the

The percent of students that are frequent binge drinkers rose in the 1990s, as did the percent of abstainers.

	1993	1997	1999
Frequent binge drinker	20%	21%	23%
Occasional binge drinker	25%	22%	21%
Non-binge drinker	40%	38%	37%
Abstainer	15%	19%	19%

year 2010. The U.S. Centers for Disease Control and Prevention now provide annual state binge drinking-rate reports. The U.S. Senate and House of Representatives have passed resolutions urging actions to address college binge drinking.

The College Alcohol Study also led the way in showing how bingeing students harm and violate the rights of others on campus. These second-hand effects range from automobile-related fatalities to serious injuries, and from vandalism and physical assaults to

problems of everyday life such as losing sleep and study time. Now that the toll of second-hand effects has been recognized, it is more difficult to dismiss college binge drinking as a rite of passage. The damage to the quality of life of innocent bystanders makes it essential for colleges to act.

Today, two in three college presidents consider binge drinking a problem and are looking for ways to combat it. The College Alcohol Study has provided valuable information to help guide those efforts. It not only has shown the breadth and depth of the problem, but also has pointed toward solutions. Critically, it has shown that the majority (56 percent) of students do not binge drink. Furthermore, these students expect and deserve a safe environment in which to study and socialize. Together, college administrators, students, and communities can change the culture of campus binge drinking.

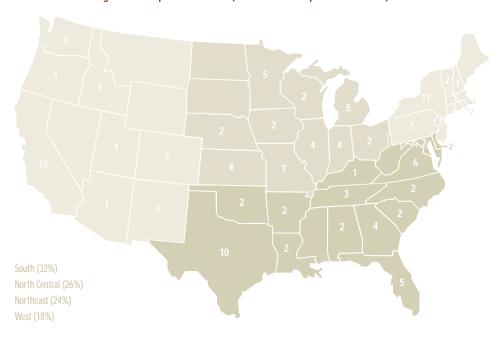
"I've avoided frats and alcohol venues altogether. More than anything, it makes me sad to see my friends drinking."

— College student

Frequent binge drinkers consume 72% of all alcohol that college students drink.



Distribution of the original CAS sample of 140 schools (number of schools per state indicated)



The College Alcohol Study

The College Alcohol Study has conducted three national surveys throughout the 1990s. They included 17,592 students in 1993, 15,685 in 1997, and 14,941 in 1999. Students at 140 four-year colleges and universities in 40 states and the District of Columbia participated.

The colleges represent a cross-section of American higher education. Two-thirds are public, one-third are private. About two-thirds are in urban or suburban areas, and one-third are in small towns or rural settings. Fifteen percent are religious institutions, 5 percent enroll women only, and 4 percent are historically black colleges.

At each institution, administrators provided a random sample of over 200 undergraduates to whom we mailed the national survey. Student responses were voluntary and anonymous. In each of the three surveys, 60 to 70 percent of students responded. To ensure that the findings were representative of American college students, we carried out careful statistical controls, including a short survey form that followed up with non-respondents.

The national surveys asked students about their drinking behavior, reasons for drinking, and high school drinking experience. Students who drank in college were asked about alcohol-related problems they had experienced, and all students were asked about the consequences of other students' drinking.

"My younger sister is a freshman at a college in another state.
During pledge week in her sorority, all pledges received a huge bottle of hard liquor from their big sister and a shot glass."

—College student

"Recently, a freshman got drunk and jumped off our gym. He was trying to reach the pool but failed. He broke both of his ankles and was knocked out. He then rolled into

the pool and drowned."

--- College studen

Binge Drinking Defined

Our measure of binge drinking is a simple and direct indicator of problems. It is not a chemical measure, as is a Breathalyzer test. It is a public health screening device. Frequent binge drinkers experience and cause more problems than occasional binge drinkers, who in turn have more problems than drinkers who do not binge.

Binge drinker: Male who consumed five or more drinks in a row; female who consumed four or more drinks in a row at least once in a two-week period.

Occasional binge drinker: Student who binged one or two times in a two-week period.

Frequent binge drinker: Student who binged three or more times in a two-week period.

Drink: A 12-ounce beer, a four-ounce glass of wine, a 12-ounce wine cooler, or a shot of liquor taken straight or in a mixed drink.

Is Binge Drinking Increasing?

From 1993 until today, the proportion of students who binge drink (44 percent) has remained remarkably stable. However, the most extreme forms of binge drinking

By a variety of measures, the most excessive forms of drinking have increased.

Previous 30 days' drinking	1993	1997	1999
Drank on 10 or more occasions	18%	21%	22%
Binged when drinking	41%	42%	45%
Was drunk 3 or more times	23%	28%	29%
Drank to get drunk	40%	52%	47%

are increasing. Frequent binge drinkers, for example, increased from about 20 percent of all students in 1993 to 23 percent in 1999. Other forms of extreme drinking are also on the rise.

As students binge more frequently, campuses are becoming increasingly polarized between heavy drinkers and abstainers. Almost one-fourth of all

college students binge drink frequently, and almost one-fifth abstain. The prevalence of abstainers increased from 15 percent in 1993 to 19 percent in 1999. It may be that a growing number of all students are abstaining in reaction to the extremes of drinking among their fellow students.

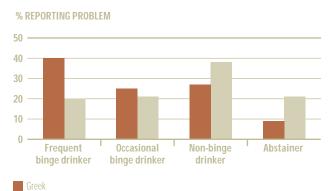
Heavy alcohol use affects more students than other drugs combined. More students drink than use cocaine, marijuana, or cigarettes combined.

What Are the Centers of Student Binge Drinking?

Fraternities and sororities and intercollegiate athletics are centers of alcohol abuse on campuses.

While student binge drinkers tend to be male, white, and under 24 years of age, the strongest predictor of binge drinking is fraternity or sorority residence

Two of five fraternity and sorority members are frequent binge drinkers, compared to one of five non-Greek students.



or membership. Four of five students who live in fraternities and sororities are binge drinkers.

Athletes binge more than others. In 1999, 29 percent of athletes were frequent binge drinkers, compared to 22 percent of non-athletes.

Students least likely to binge are African American or Asian, age 24 years or older, or married. As a group, African Americans, and particularly women, have the lowest prevalence of binge drinking. In 1999, only 16 percent of African American students binged,

compared to 49 percent of white students.

Students who put a priority on their studies, who devote time to special interests such as art, or who participate in volunteer activities are less likely to binge.

"During my first two semesters of college, my performance was very poor due to alcohol, partying, and lack of motivation. I sat out of school for the next eight years."

Non-Greek

— College studen

How Bingeing Students Harm Themselves

Every year, students die in alcohol-related tragedies: acute alcohol poisonings, car accidents, drownings, falls, and fights. While such tragedies are relatively rare, they underscore the multiple and far-reaching consequences of binge drinking.

Compared to non-binge drinkers, frequent bingers are 17 times more likely to miss a class, ten times more likely to vandalize property, and eight times more likely

Frequent binge drinkers account for more than three-fifths of each of the most serious alcohol-related problems on campus.

All shudants who	% who are frequent binge
All students who:	drinkers
Damaged property	65.3%
Had trouble with the police	64.3%
Were injured	61.5%
Had 5 or more different problems	69.4%

to get hurt or injured as a result of their drinking. Binge drinking also contributes to poor academic performance and college dropout rates.

Second-hand effects of others' drinking

	affec	tudents ted at nd high-
Type of effect		schools
	Low	High
Insulted or humiliated	21	36
Unwanted sexual advance	15	23
Serious argument or quarrel	14	23
Pushed, hit, or assaulted	6	11
Had property damaged	7	16
Had studying/sleeping interrupted	43	71
Been a victim of sexual assault or date rape	.6	1
Experienced at least one of the above problems	64	86

"Many of the frats here have the nickname, the 'date-rape' frat."

— College studen

How Bingeing Students Harm Others

Many non-bingeing students experience second-hand effects of others' binge drinking. Like second-hand smoke, those effects can range from annoying to serious.

Non-binge drinking students and abstainers who live on high-binge campuses are especially at risk. In 1999, they were twice as likely to suffer second-hand effects as were students at low-binge campuses.

How Binge Drinking Affects Women

Binge drinking is a women's health issue. Because of differences in metabolism, women are affected by alcohol much more readily than men. Therefore, if they match a man drink-for-drink, they face greater health and behavioral risks.

Heavy alcohol use, coupled with inexperience with drinking, puts young women in serious jeopardy for sexual assault. About 10 percent of female students who are frequent binge drinkers report being raped or subjected to nonconsensual sex, compared to only 3 percent of non-bingeing female students. Furthermore, most campus rapes occur after heavy drinking.

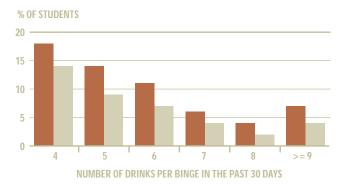
Female students tend to underestimate their drinking problems more than men. Among drinkers who binged three or more times in the past two weeks, 20 percent of the men described themselves as heavy or problem drinkers, compared to only 7 percent of the women.

The Special Nature of Underage Drinking

Students under 21 years of age tend to drink on fewer occasions, but drink more per occasion and have more alcohol-related problems than of-age students.

In our 1999 survey, two in three underage students reported drinking in the past 30 days. Although alcohol is not legally available to them, underage students report

Underage students binge drink (five drinks in a row for a man, four for a woman) at a higher frequency than students over 21.



"We have about 45 bars in a two-block radius here, and it is very easy for underage people to buy alcohol once they are inside the bar."

—College studen

Beer kegs and bar specials make alcohol one of the cheapest forms of entertainment at high-binge colleges.

College student purchases	Avg. price
One glass of beer from a keg	\$0.25
One can of beer	0.37
One drink on special at a bar/club	0.75
Medium-size soft drink	1.01
Cup of coffee (on-campus)	1.26
Cup of coffee (off-campus)	1.36
Admission, all-you-can-drink party	1.50
Movie ticket	5.86
Concert	27.33

that it is easy to obtain, usually at little or no cost. Some 58 percent of underage students reported that they paid less than one dollar for a drink, got it free, or paid a set price for all they could drink, compared to 16 percent of students 21 to 23 years of age.

Paying less allows students to drink more. About 42 percent of underage students usually consumed five or more drinks when they drank, compared with 27 percent of older students. The basis for underage drinking is easy access, cheap prices, and a steady flow of beer.

Furthermore, most underage college binge drinkers began to drink in high school, and more than half of all college binge drinkers first binged in high school.

The Sale and Marketing of Alcohol to College Students

Many colleges are surrounded by a ring of bars and liquor stores within one mile of campus. These establishments compete for customers, and many aggressively market their goods to students. Competition drives down prices, and often a dollar or less is all a student needs for a drink. Marketing tactics such as "ladies' nights" or "all-you-can-drink" fees cater to students.

We found that the lower the cost of alcohol, the more heavily students drink. Based on cost alone, few social activities can compete with the cheap and plentiful supply of alcohol.

What Colleges Can Do

On campuses nationwide, binge drinking disrupts student life and compromises student safety. The College Alcohol Study surveyed administrators at more than 700 colleges to learn what colleges are doing to prevent binge drinking.

The results show that most colleges focus on influencing individual student behavior, often through educational programs. This is only a partial response. Colleges need to adopt comprehensive strategies that address supply and demand, and seek to reshape the social environment that influences student drinking behavior. Such strategies include working with the community to curtail supply and to enforce the legal drinking age. Their success depends on the cooperation of administrators, students, parents, and police.

"We decided to start
'from scratch' by admitting
that... alcohol education
had not reduced binge
drinking. We wrote
a plan that addresses
education, judicial action,
neighbor relations,
and many other aspects
of drinking. Our aim
is to change the student
drinking culture."

— College administrato

Twelve-Step Program

No magic bullet will solve the entrenched problem of college binge drinking. Just as many factors contribute to it, many approaches are needed for its solution. The following is a 12-step program to help colleges address binge drinking. It was compiled based on insights gained through the College Alcohol Study and on the thousands of responses from administrators and students collected during the Study's eight years.

1. Colleges must acknowledge that an alcohol problem exists and assess its scope.

Take pride in confronting a problem everyone knows exists. To assess the scope of the problem, top administrators should take an unannounced weekend campus tour of fraternities, dorms, the health service office, and local bars.

2. A systematic effort begins with the president and organizes for the long-term.

Don't deny reality; provide leadership for your faculty, staff, and students. Only committed leadership at the top will ensure the success of long-term prevention and intervention strategies.

- **3.** Involve everyone and think broadly about solutions. In addition to the usual participants, such as health services and security, include faculty and resident advisors, Greek leaders, athletic coaches, and team captains. Athletes are an important part of the problem-they should be part of the solution. Involve parents as well. They need to be informed about the problem and college policies to combat it. Most of all, involve students affected by binge drinking.
- **4. Student education.** Provide students with education about alcohol and its harms and with accurate information about campus drinking norms.
- 5. Work with the local community. Together, place limits on the supply and marketing of alcohol. Cooperate with local authorities, including police and alcohol beverage control agencies. Work with high schools to reduce underage drinking before students get to college.
- 6. Establish the rights of non-bingeing students. Students who abstain from or control their drinking should not have to suffer its second-hand effects. Empower students to take the lead in asserting their rights. Help them by funding alcohol-free social and recreational activities.
- **7. Develop a code of conduct in concert with non-bingeing students.** Enforce the code strictly. Most students support policies that curtail excessive drinking and the behavior that accompanies it. Students that binge drink, not their sober classmates, should pay the consequences of their disruptive behavior.

- 8. Provide alcohol-free living arrangements. In 1999, one in five students who lived on campus chose an alcohol-free environment. Another one in four expressed a desire to do so. Alcohol-free dorms may help students who did not binge drink in high school from becoming binge drinkers in college.
- 9. Address problem drinking at fraternities and sororities. Underage students commonly drink in these settings. Colleges need to stop the illegal sale of alcohol without a license, hold national organizations accountable for serving underage students, and gain alumni support to change fraternity and sorority practices.
- 10. Provide full-time education for a full-time tuition. Hold classes and exams on Fridays.
 A college should not enable students to binge drink from Thursday to Sunday.
- 11. Encourage problem drinkers to seek help or treatment. Make referral and treatment sources readily available. Train RAs and peers to recognize alcohol problems and to urge students with signs of problem drinking to seek help.
- 12. Start freshman orientation before students arrive on campus. Send the message, "No binge drinking major offered here." Use the admissions office, high school counselors, and alumni to get this message out. Students need to know they can enjoy school, develop lasting friendships, and prepare for the future without binge drinking.

Summing Up

In many ways, college binge drinking is entrenched on American college campuses. But there are signs that schools and students have had enough. Campuses and campus-community coalitions are implementing new policies to restrict excessive drinking. Some fraternities and sororities have chosen to be dry, and more students are choosing to abstain.

Nonetheless, only a sustained effort that has broad support will change the culture of excessive drinking. Success is possible. Just as society has dramatically altered its acceptance of cigarette smoking and second-hand smoke, so, too, can it change college drinking practices.

The Harvard School of Public Health College Alcohol Study will conduct another round of surveys in 2001, focusing on the programs and policies that have made a difference. We hope to have good news to report.

"For once, I wish people could see how cool it really is not to need alcohol to have fun."

— College student

The majority of students support alcohol policies that could curtail binge drinking.

Alcohol policies	% of supportive students
Crack down on drinking at sororities and fraternities	60%
Hold hosts responsible for problems	55%
Crack down on underage drinking	67%
Prohibit kegs	60%
Ban ads for alcohol at campus events	51%
Enforce rules more strictly	65%

College Alcohol Study Publications

1994 Wechsler H, Davenport A, Dowdall G, Moeykens B, Castillo S.

Health and behavioral consequences of binge drinking in college: A national survey of students at 140 campuses. *JAMA*. 1994;272:1672–1677.

1995 Wechsler H, Deutsch C, Dowdall G.

Too many colleges are still in denial about alcohol abuse [editorial]. Chron Higher Ed. 1995; April.

Wechsler H, Dowdall G, Davenport A, Castillo S.

Correlates of college student binge drinking. Am J Public Health. 1995;85:921-926.

Wechsler H, Dowdall GW, Davenport A, Rimm EB.

A gender-specific measure of binge drinking among college students. *Am J Public Health*. 1995;85:982–985.

Wechsler H, Moeykens B, Davenport A, Castillo S, Hansen J.

The adverse impact of heavy episodic drinkers on other college students. *J Stud Alcohol.* 1995; 56:628–634.

1996 Kuh GD, Pascarella ET, Wechsler H.

Point of view: The questionable value of fraternities [editorial]. Chron Higher Ed. 1996; April: A68.

Perkins HW, Wechsler H.

Variation in perceived college drinking norms and its impact on alcohol abuse:

A nationwide study. J Drug Issues. 1996; 26:961-974.

Wechsler H, Kuh G, Davenport A.

Fraternities, sororities and binge drinking: Results from a national study of American colleges. *NASPA Journal*. 1996;33:260–278.

Wechsler H, Weitzman E.

Community solutions to community problems—Preventing adolescent alcohol use [editorial]. *Am J Public Hlth.* 1996;86:923–925.

Wechsler H.

Alcohol and the American college campus: A report from the Harvard School of Public Health. *Change.* 1996; July/Aug: 20–25,60.

Chaloupka FJ, Wechsler H.

Binge drinking in college: The impact of price, availability, and alcohol control policies. *Contemp Econ Policy.* 1996; Oct:112–124.

1997 Chaloupka FJ, Wechsler H.

Price, tobacco control policies and smoking among young adults. J Hlth Econ. 1997; 16:359-373.

Wechsler H, Davenport A, Dowdall G, Grossman S, Zanakos S.

Binge drinking, tobacco, and illicit drug use and involvement in college athletics. *J Am Coll Hlth*. 1997;45:195–200.

Wechsler H, Fulop M, Padilla A, Lee H, Patrick K.

Binge drinking among college students: A comparison of California with other states. *J Am Coll Hlth.* 1997;45:273–277.

Bell R, Wechsler H, Johnston LD.

Correlates of college student marijuana use: Results of a U.S. national survey. *Addiction.* 1997;92:571–582.

1998 Wechsler H, Austin SB.

Binge drinking: the five / four measure. J Stud Alwhol. 1998;59(1):122-4.

Emmons K, Wechsler H, Dowdall G, Abraham M.

Predictors of smoking among U.S. college students. Am J Public Hlth. 1998;88:104-107.

Wechsler H, Dowdall GW, Maenner G, Gledhill-Hoyt J, Lee H.

Changes in binge drinking and related problems among American college students between 1993 and 1997: Results of the Harvard School of Public Health College Alcohol Study. J Am Coll Hlth. 1998;47:57–68.

Wechsler H, Rigotti NA, Gledhill-Hoyt J, Lee H.

Increased levels of cigarette use among college students: A cause for national concern. *JAMA*. 1998;280(19):1673–1678.

1999 Wechsler H, Molnar BE, Davenport AE, Baer JS.

College alcohol use: A full or empty glass? JAm Coll Hlth. 1999;47:247-252.

Miller M, Hemenway D, Wechsler H.

Guns at college. J Am Coll Hlth. 1999;48:7-12.

2000 Wechsler H, Nelson T, Weitzman E.

From knowledge to action: How Harvard's College Alcohol Study can help your campus design a campaign against student alcohol abuse. Change. 2000;32(1):38–43.

Wechsler H, Kelley K, Weitzman E, San Giovanni JP, Seibring M.

What colleges are doing about student binge drinking: A survey of college administrators. *J Am Coll Hlth.* 2000;48:219–233.

Wechsler H, Lee JE, Kuo M, Lee H.

College binge drinking in the 1990s: A continuing problem: Results of the Harvard School of Public Health 1999 College Alcohol Study. *J Am Coll Hlth.* 2000;48:199–210.

Wechsler H, Kuo M, Lee H., Dowdall GW.

Environmental correlates of underage alcohol use and related problems of college students. *Am J Prev Med.* 2000;19:24–29.

Weitzman ER, Wechsler H.

Alcohol use, abuse and related problems among children of problem drinkers, findings from a national survey of college alcohol use. *J Nerv Ment Dis.* 2000;188:154.

Rigotti N, Lee JE, Wechsler H.

U.S. college students' use of tobacco products: Results of a national survey. JAMA. 2000;284:699-705.

Wechsler H, Kuo M.

College students define binge drinking and estimate its prevalence: Results of a national survey. *J Am Coll Health.* 2000;49:57–64.

Gledhill-Hoyt, J, Lee, H, Strote, J, Wechsler, H.

Increased use of marijuana and other illicit drugs at U.S. colleges in the 1990s: Results of three national surveys. *Addiction*. 2000;95(11):1655–1667.

Nelson TF, Wechsler H.

Alcohol and college athletes. Med Sci Sport and Exerc. January 2001. In press.

Wechsler H, Lee JE, Nelson TF, Lee H.

Drinking levels, alcohol problems and second-hand effects in substance free college residences: Results of a national study. *J Stud Alcohol* 2001. In press.