



# Student Drinking January/February 2009

(Revised Oct. 2009)

## INTRODUCTION

This survey provides data on alcohol use and high-risk drinking behavior of undergraduate students at University Park. Included in the survey are questions concerning students' peak drinking behavior and nightly alcohol use, the direct and indirect consequences of alcohol consumption, and protective and risk behaviors associated with drinking. While this topic has been assessed regularly since 1995, the 2008 survey was significantly revised with the assistance of Dr. Rob Turrisi and his staff in the Prevention Research Center. Although several comparisons to previous years' surveys are applicable, some findings will only be comparable to data gathered since the 2008 survey administration.

Because the phone surveying operations of the office were suspended for the 2008 - 2009 academic year, this year's data were only gathered via the Web. In total, 1,951 students responded to the survey for a 32.5% response rate. The confidence interval for the total sample is +/-2.15%.

Of the respondents, 56.8% are between 18 and 20 years of age, 47.4% are male, 87.2% are white/Caucasian, 42.6% live on campus, 39.3% are first-year or sophomore students, and 78.9% began their Penn State career at University Park. For additional information on the Pulse methodology, please visit: [www.sa.psu.edu/sara/qa.shtml](http://www.sa.psu.edu/sara/qa.shtml).

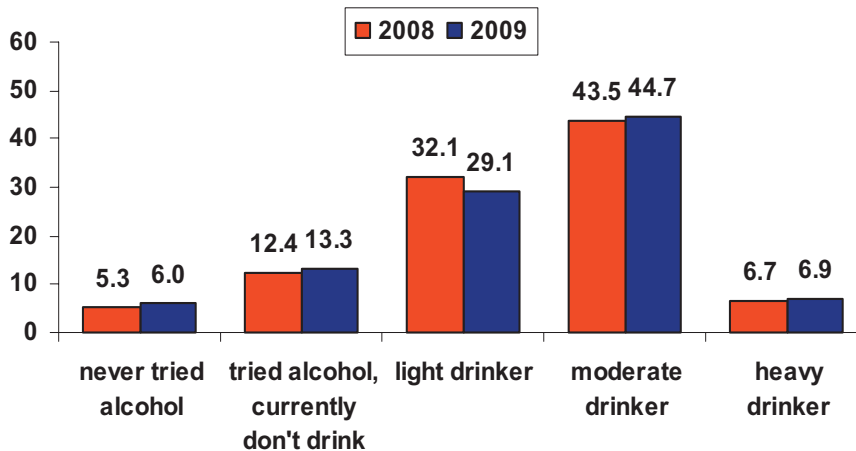
## FINDINGS

### Alcohol Consumption

#### Prevalence of Alcohol Use

- When asked how they would best describe their alcohol usage, the majority of students (73.8%, a slight increase from 75.6% in 2008) reported being either "light" or "moderate" drinkers (see Chart 1).

Chart 1. Students' Self-Reported Drinking Behavior  
(by percent)



Alcohol use and high-risk drinking behavior at University Park

For more information please visit:  
[www.sa.psu.edu/sara](http://www.sa.psu.edu/sara)



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- In addition, 63.8% indicated they had tried alcohol (more than a few sips) when they were 17 years old or younger (data not shown).
- While 17.8% reported they have never gotten drunk, 49.4% had gotten drunk for the first time prior to the age of 18 (data not shown).

### Quantity of Consumption

Students were asked about their drinking behavior on Wednesday, Thursday, Friday, and Saturday nights of a typical week during this academic year.

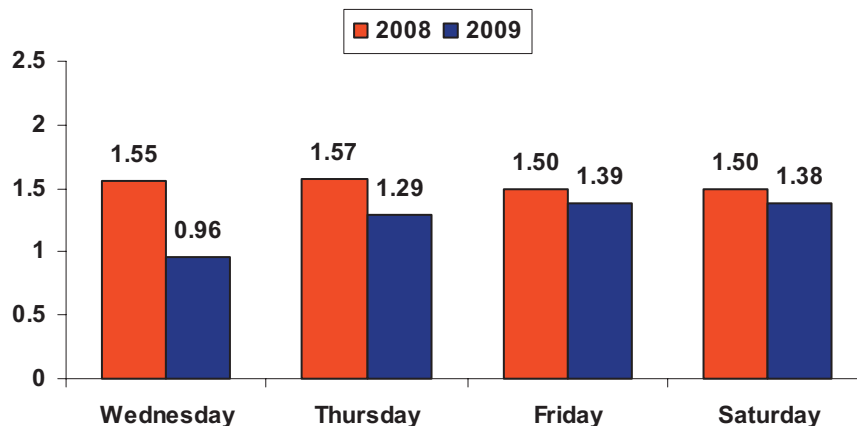
- Nearly three-quarters of students reported drinking on Friday and Saturday nights of a typical week, whereas 12.9% reported drinking on Wednesday nights and 41.7% on Thursday nights (see Table 1).
- There was a slight decrease for each night, Wednesday through Saturday of a typical week, in the percentage of students who reported drinking compared to 2008 (see Table 1).
- Among students who drink on a given night, the average number of drinks per hour is higher on Friday and Saturday nights than on Wednesday and Thursday nights (see Chart 2).
- Additionally, the average number of drinks per hour of students who drink on a given night for the 2009 survey were each slightly less than those in the 2008 administration (see Chart 2).
- However, the Blood Alcohol Content (BAC) levels are higher on the weekends at .096 and .097 on Friday and Saturday nights respectively compared to .056 on Wednesday evenings and .077 on Thursdays (data not shown).
- Likewise, the BAC levels for each night of students in the 2009 administration were somewhat lower than those of students in the 2008 survey (data not shown).

**Table 1: Nightly Alcohol Use During a Typical Week \***

Night	Percent who are Drinking		Avg. # of Drinks		Avg. # of Hours	
	2008	2009	2008	2009	2008	2009
Wednesday	16.7	12.9	0.62	0.50	0.43	0.37
Thursday	45.0	41.7	2.31	2.06	1.49	1.41
Friday	77.7	74.5	4.81	4.56	3.23	3.08
Saturday	75.5	73.8	4.83	4.58	3.27	3.13

\* Data are representative of all students, including students who don't drink.

**Chart 2. Average Numbers of Drinks Per Hour (students who are drinking on these nights)**



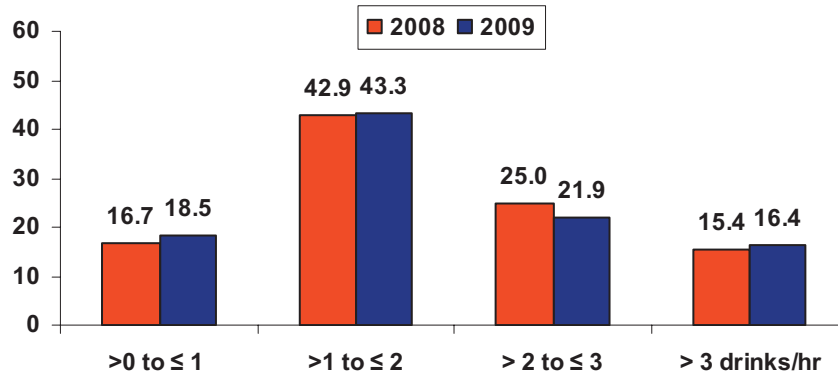
### Peak Drinking Behavior

Students were asked to report on the occasion when they drank the most in the previous three months.

- Students averaged 8.12 drinks over 4.16 hours during the occasion when they drank the most during the previous three months (data not shown).

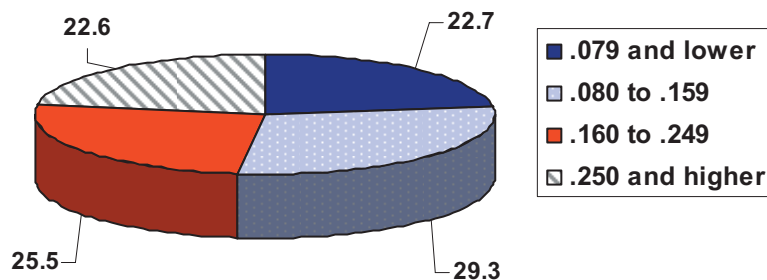
- Students, on average, reported drinking at this peak volume 3.19 times during the three month period. Over half (50.2%) reported drinking at a peak level 1 to 2 times; 16.9%, 3 to 4 times; and 17.4%, 5 or more times (with 15.6% reporting they don't drink) (data not shown).
- While 61.8% of students who drink consumed two or less drinks per hour (see Chart 3), the average was 2.14 drinks per hour during peak drinking occasions (data not shown).

**Chart 3. Number of Drinks Consumed Per Hour During Peak Drinking (percent of students who drink)**



- While 22.7% of students who drink reported peak drinking behavior resulting in a BAC of .079 or lower (below the legal limit), 22.6% reported a BAC of .250 or higher (see Chart 4).

**Chart 4. Blood Alcohol Content During Peak Drinking Experience (calculated BAC for students who drink)**

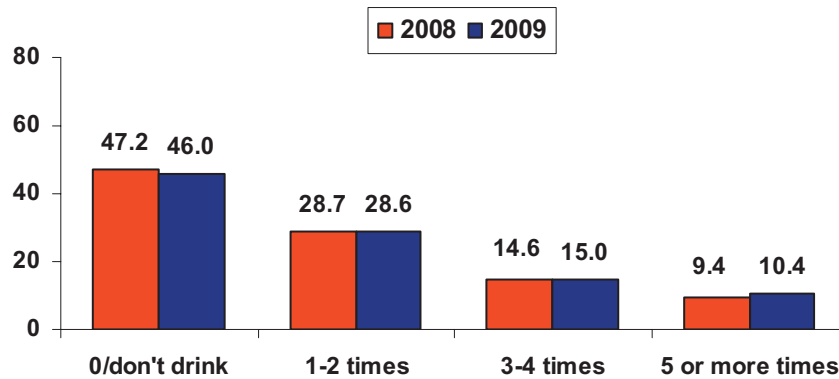


### High-Risk Drinking

High-risk, or binge drinking, is defined as having four or more drinks in a two-hour period for women and five or more drinks in a two-hour period for men at least once during the previous two weeks. Frequent high-risk drinkers are those students who reported having binged three or more times during a two-week period. Occasional high-risk drinkers are those who reported having binged one or two times during a two-week period.

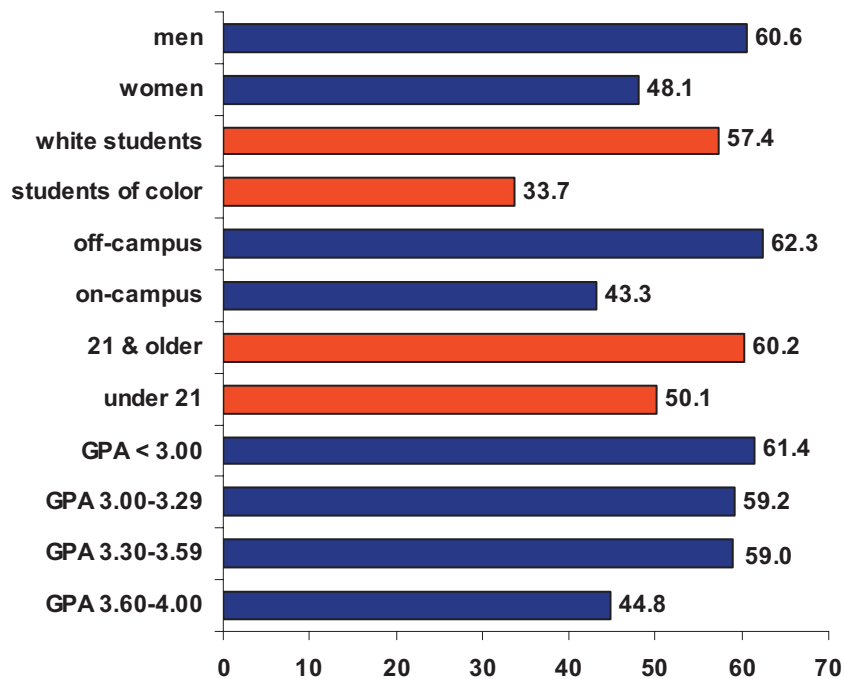
- More than half of the respondents (54.0%) reported engaging in high-risk drinking behavior with 25.4% being classified as frequent high-risk drinkers (see Chart 5).
- The high-risk drinking rate in 2009 (54.0%) is similar to that in 2008 (52.8%) (data not shown).
- The 2008 and 2009 high-risk drinking rates are lower than what had been reported in recent years (58.9% in 2006, 55.2% in 2004, and 60.4% in 2003). The question, however, was revised in 2008 which may account for the difference. Since 2008, the question has been based on the number of drinks consumed during “a two-hour period” as compared to “in one sitting” that had been asked in the previous years.

**Chart 5. Number of Times Students Engaged in High-Risk Drinking During a Two-Week Period (by percent)**



- As depicted below (see Chart 6), men, white students, off-campus residents, and students of legal drinking age reported significantly higher levels of high-risk drinking than did their respective counterparts.
- In addition, evidence suggests an inverse relationship between high-risk drinking and GPA (see Chart 6).

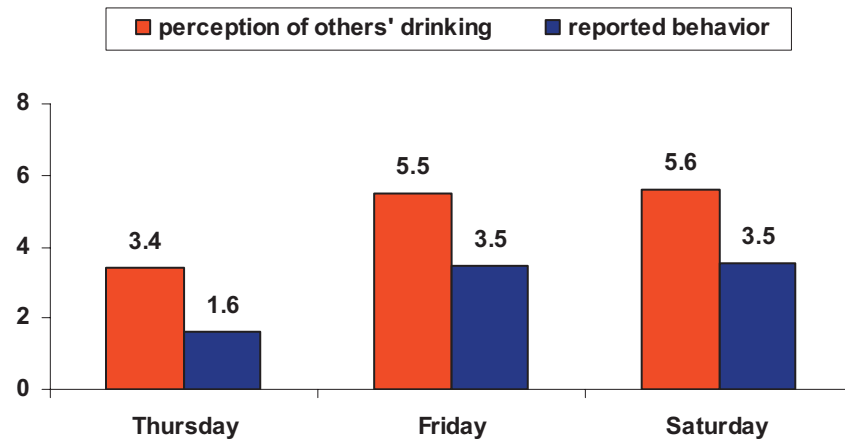
**Chart 6. Percentage of High-Risk Drinkers**



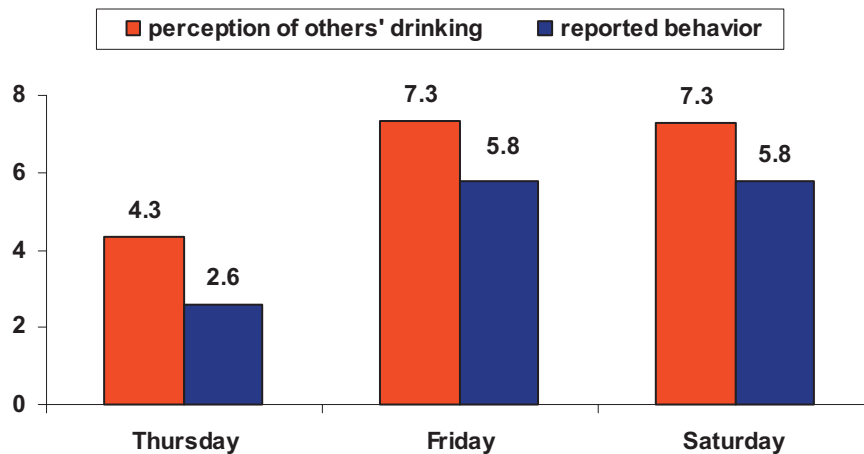
**Perceptions of Alcohol Use**

Students were asked how much alcohol they think a typical Penn State student of their sex has on a typical Thursday, Friday, or Saturday evening. These perceptions of alcohol use are compared to the actual reported behavior for female and male students in Charts 7 and 8. As demonstrated in both charts, students perceive a higher quantity of alcohol consumed than what is actually reported. In addition, both women's and men's drinking behavior in 2009 are similar to that reported in 2008 (data not shown).

**Chart 7. Women's Perceptions v. Reported Behavior: Avg. Number of Drinks Consumed on a Typical Evening**



**Chart 8. Men's Perceptions v. Reported Behavior: Avg. Number of Drinks Consumed on a Typical Evening**



### Consequences of Alcohol Use

Students were also asked about a series of consequences of alcohol use – both indirect (resulting from other students' drinking)<sup>1</sup> and direct (resulting from their own drinking) consequences.

#### Indirect Consequences

The data regarding students experiencing consequences as a result of other students' drinking are presented in Table 2. (These questions were asked of students who drink and students who do not. These questions were replicated from previous surveys on student drinking. Hence, comparison data are provided.)

- More than 60% of students reported having had to 'baby-sit' a student who drank too much and had their studying or sleep interrupted during this academic year.
- Approximately 40% had been insulted or humiliated, and nearly one-third had had a serious argument or quarrel as a result of someone else's drinking.
- From 2003 to 2006, there had been a consistent upward trend in the frequency of students experiencing indirect consequences. From 2006 to 2009, however, there were notable decreases in the frequency of students experiencing most of the indirect consequences (see Table 2).

<sup>1</sup>These questions are used with permission from the Harvard School of Health.

**Table 2. Percent of Students Experiencing Consequences from Other Students' Drinking**

<b>Indirect Consequences</b>	<b>2003</b>	<b>2004</b>	<b>2006</b>	<b>2008</b>	<b>2009</b>
Had to 'baby-sit' a student who drank too much	56.5	60.0	64.0	65.7	<b>62.6</b>
Had your studying or sleep interrupted	59.4	64.7	70.5	66.0	<b>60.8</b>
Been insulted or humiliated	27.4	32.1	36.9	40.6	<b>40.5</b>
Had a serious argument or quarrel	32.0	36.6	44.5	38.6	<b>33.1</b>
Had your property damaged	22.5	24.7	31.4	21.9	<b>20.5</b>
Been pushed, hit, or assaulted	12.6	14.7	20.1	17.7	<b>15.2</b>
Been a victim of unwanted sexual experience	3.5	5.5	5.8	5.5	<b>5.7</b>

### Direct Consequences

When asked a series of questions regarding physical, academic, interpersonal, legal, and sexual consequences they may have experienced as a result of their own drinking during the current academic year, students reported the following<sup>2</sup>:

- 66.0% reported having had a hangover or headache the morning after drinking (compared to 68.1% in 2008, 70.1% in 2006, and 59.8% in 2004) (see Table 3);
- approximately half reported having felt sick to their stomach or thrown up and being unable to remember part of the previous evening (see Table 3);
- 25.7% reported having missed a class because of their alcohol use (compared to 32.4% in 2008, 38.0% in 2006, and 25.9% in 2004) (see Table 4);
- 24.0% had gotten behind in their school work because of their alcohol use (compared to 26.4% in 2008, 26.5% in 2006, and 20.7% in 2004) (see Table 4); and
- 34.2% reported doing something they later regretted (compared to 37.1% in 2008, 43.8% in 2006, and 33.2% in 2004) (see Table 5).

**Table 3. Physical Consequences Because of Alcohol Use**

<b>Direct Consequences</b>	<b>Percent</b>	
	<b>2008</b>	<b>2009</b>
Had a hangover/headache the morning after drinking	68.1	66.0
Felt sick to your stomach or thrown up	49.3	50.2
Been unable to remember a part of the previous evening	48.1	47.3
Been hurt or injured	14.6	15.6
Gotten into a physical fight	7.3	6.1

**Table 4. Academic Consequences Because of Alcohol Use**

<b>Direct Consequences</b>	<b>Percent</b>	
	<b>2008</b>	<b>2009</b>
Missed class	32.4	25.7
Gotten behind in school work	26.4	24.0
Had difficulty concentrating in class	24.2	21.9
Performed poorly on an assignment or test	15.6	14.6

**Table 5. Interpersonal Consequences Because of Alcohol Use**

<b>Direct Consequences</b>	<b>Percent</b>	
	<b>2008</b>	<b>2009</b>
Done something you later regretted	37.1	34.2
Become rude, obnoxious, or insulting	36.5	30.3
Felt guilty about your drinking	28.4	28.8

- In addition, 6.1% indicated they had driven under the influence (compared to 7.4% in 2008), and 4.4% reported having damaged property or set off a false alarm (compared to 6.3% in 2008) (see Table 6).

<sup>2</sup> These percentages represent all students. In several cases, the questions asked were also asked in previous surveys on student drinking. Comparison data are provided (but not shown) when available.

- Moreover, 9.4% reported having had sex when they didn't really want to (compared to 9.3% in 2008), and 3.4% had been pressured or forced to have sex with someone when they had been too drunk to prevent it (compared to 3.2% in 2008) (see Table 7).
- Lastly, and similar to the 2008 results, students who engaged in high-risk drinking were significantly more likely to experience all of the consequences when compared to non-high-risk drinkers. Frequent binge drinkers were at the greatest risk (data not shown).

**Table 6. Legal Consequences Because of Alcohol Use**

Direct Consequences	Percent	
	2008	2009
Driven under the influence	7.4	6.1
Gotten in trouble at school	5.9	4.7
Damaged property or set off a false alarm	6.3	4.4
Gotten in trouble with the police	5.3	3.8

**Table 7. Sexual Consequences Because of Alcohol Use**

Direct Consequences	Percent	
	2008	2009
Had sex when you didn't really want to	9.3	9.4
Been pressured or forced to have sex with someone when you were too drunk to prevent it	3.2	3.4
Pressured or forced someone to have sex with you after you had been drinking	2.6	1.5

### **Protective and Risk Behaviors**

Another section of the survey included questions regarding protective and risk behaviors when drinking alcohol. These data represent only students who drink.

- With the exceptions of students intentionally eating food before drinking (68.2% "usually" or "always") and keeping track of how many drinks they have had (51.1%), students do not frequently practice protective behaviors that will reduce their risks related to alcohol (see Table 8). For example, students "rarely" (based on the average scores) alternate drinking alcoholic drinks with non-alcoholic beverages, pace their drinking to no more than one drink per hour, think about their BAC to reduce risks, and intentionally mix their drinks with less alcohol than "normal."

**Table 8: Protective Behaviors When Drinking Alcohol (of students who drink)**

Behaviors	Percent "usually" or "always"		Average+	
	2008	2009	2008	2009
Intentionally eat food or a meal before drinking	61.7	68.2	3.58	3.74
Keep track of how many drinks you've had	48.4	51.1	3.27	3.39
Set a personal limit of how many drinks you'll have during a drinking occasion	29.0	30.2	2.71	2.76
Alternate alcoholic drinks with water or other non-alcoholic beverages	15.8	17.6	2.33	2.36
Pace your drinking to no more than one drink per hour	17.4	17.2	2.32	2.37
Think about your BAC in order to reduce risks associated with alcohol consumption	14.2	15.4	2.02	2.13
Intentionally mix your drinks with less alcohol than "normal"	11.9	14.9	2.27	2.39

+ Scale: 1=never, 2=rarely, 3=sometimes, 4=usually, 5=always. The higher the average the more frequently students are engaging in drinking behaviors that will reduce their risk.

In Table 9, data related to risk behaviors associated with alcohol consumption are provided. The percentages are for those students who indicated they “rarely” or “never” engage in these behaviors. Hence, more responsible drinking is associated with a higher percentage. The opposite is true for the average scores; the lower average is associated with more responsible drinking behavior.

- Of students who drink, approximately 64% reported that they “rarely” or “never” chug alcohol and about two-fifths seldom choose a drink containing a higher alcohol concentration; however, only 22.2% reported the same when asked about playing drinking games.
- In addition, only 33.0% of students who drink are unlikely to “pre-game” and only 31.8% are unlikely to do shots.

**Table 9: Risk Behaviors When Drinking Alcohol (of students who drink)**

Behaviors	Percent “never” or “rarely”		Average <sup>^</sup>	
	2008	2009	2008	2009
Chug alcohol (e.g., keg stands, beer funnels)	60.1	64.4	2.14	2.07
Choose a drink containing a higher alcohol concentration	46.6	40.5	2.48	2.58
“pre-game” (start drinking before going out)	34.9	33.0	3.02	3.07
Do shots	32.4	31.8	2.93	2.96
Play drinking games	21.5	22.2	3.20	3.22

<sup>^</sup> Scale: 1=never, 2=rarely, 3=sometimes, 4=usually, 5=always. The lower the average the more frequently students are avoiding drinking behaviors that will increase their risk.