

2008 National Conference on the Social Norms Approach, Hyatt Regency San Francisco Airport, CA  
July 22, 2008

# **Student-Conducted Research on Alcohol as Service Learning: Curricular Strategy to Expand Available Data for Social Norms Programming**

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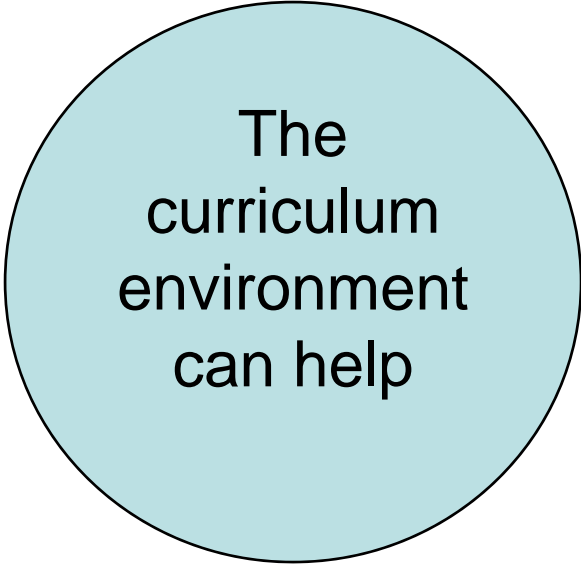
Hobart and William Smith Colleges  
Geneva, NY 14456

<http://www.alcoholeducationproject.org>

The  
problem

# We Need More Data!

- Continuous ongoing data collection program required to mount an effective social norms program
- Multiple corroborating data sources enhance credibility of norms messages
- High response rates needed for greatest credibility and impact
- Data collection requires substantial investment in time



The  
curriculum  
environment  
can help

# Factors enhancing finding a home for ATOD data collection in the curriculum and co-curriculum

- Research methods training in the curriculum
- Student Interest and Concern in ATOD Impact
- New interdisciplinary program development
- Service learning initiatives

Examples  
from HWS

# Low/No Cost Data Collection Strategies

- Undergraduate/Graduate Student Research Projects
  - Independent study late night BAC measurement
  - Web-based survey administration
- Coursework combining data collection with community information dissemination
  - First year seminar course: *Alcohol in College: What is Myth? What is Reality?*

# **Results from a Study Measuring Late Night Blood Alcohol Levels in a Residential College**

# Protocol for BAC Measurement Seeks to Ensure Subject Anonymity and Safety

- Breathalyzer instrument chosen does not display BAC result
- Instrument displays a sample ID number.
  - ID entered onto blank survey form on clipboard for subject to fill out.
  - After returning the survey to a closed box with slot, subjects are given a card with the sample ID so that they may call later to find out what their BAC was.

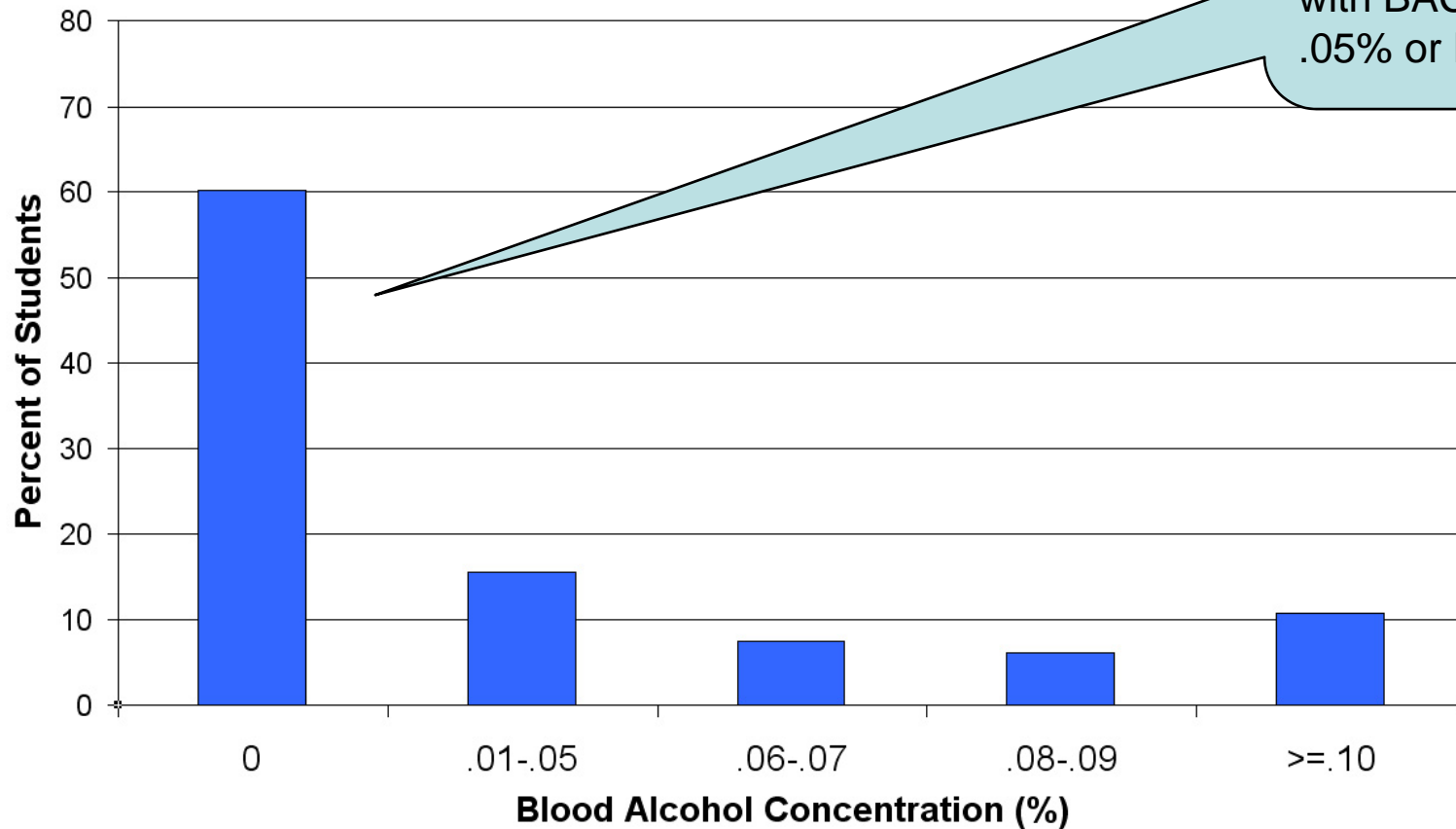


# Results – sample characteristics

- 1837 Participants  
(85% participation of those randomly selected):
  - 54% males, 46% females
  - 18% over 21, 82% under 21
  - 65% from school nights and 35% from weekend nights
  - Class rank: 45% 1st yr, 26% 2nd yr, 17% 3rd yr, and 12% 4th yr

# BAC for All Subjects

**Distribution of BAC levels of HWS students returning home late at night (N=1837)**

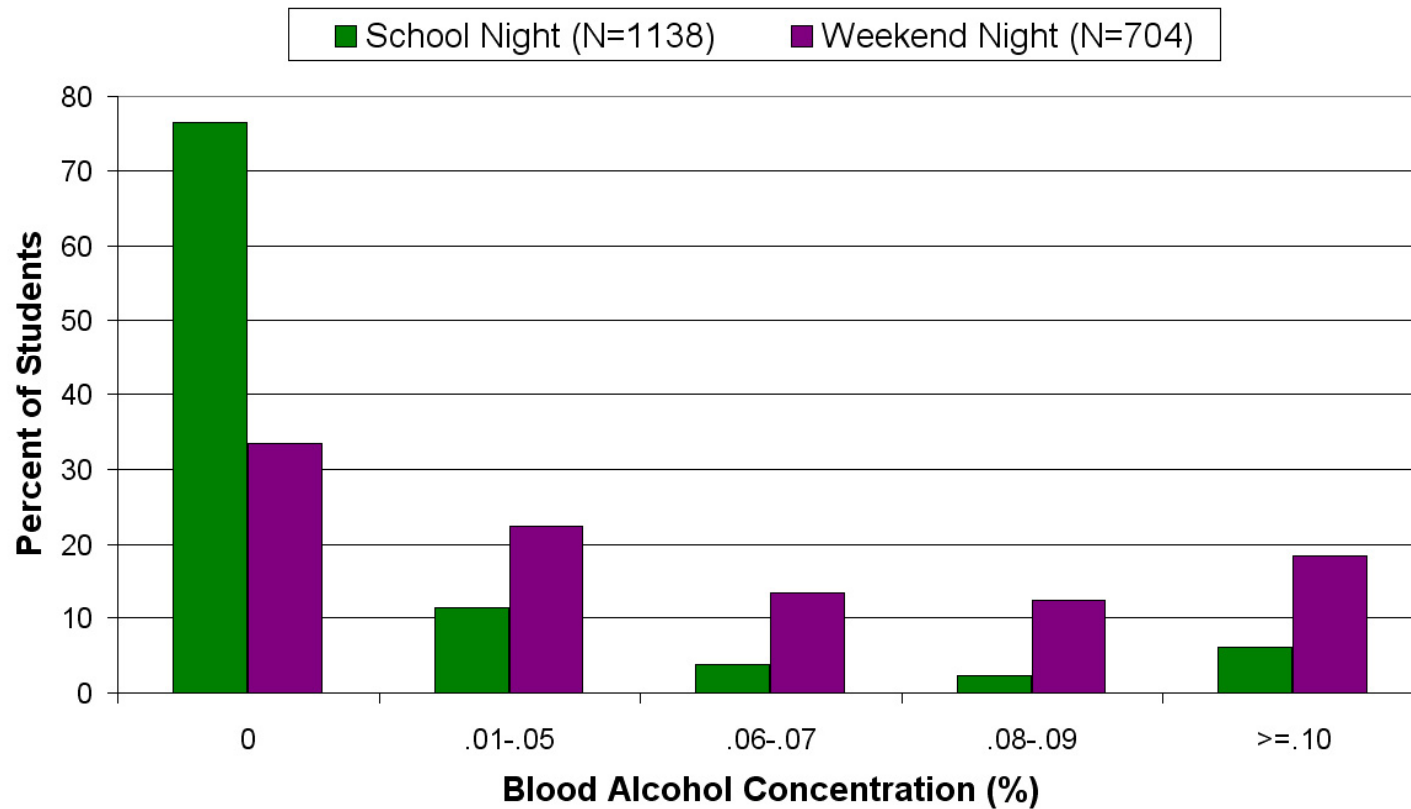


Majority return home with BAC of 0%! 75% with BAC of .05% or less.



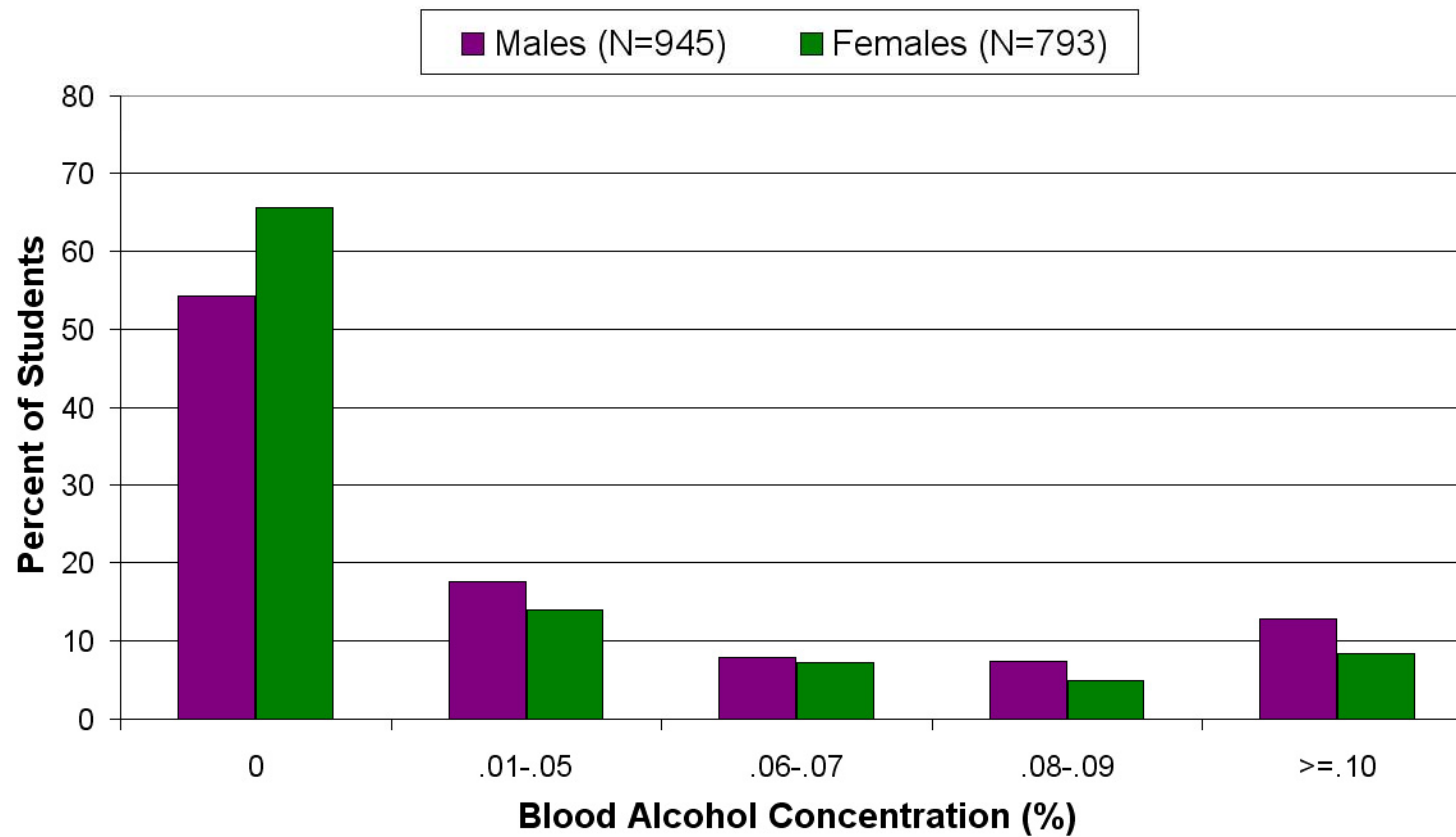
# BAC on School Nights and Weekend Nights

Distribution of BAC levels of HWS students returning home late at night



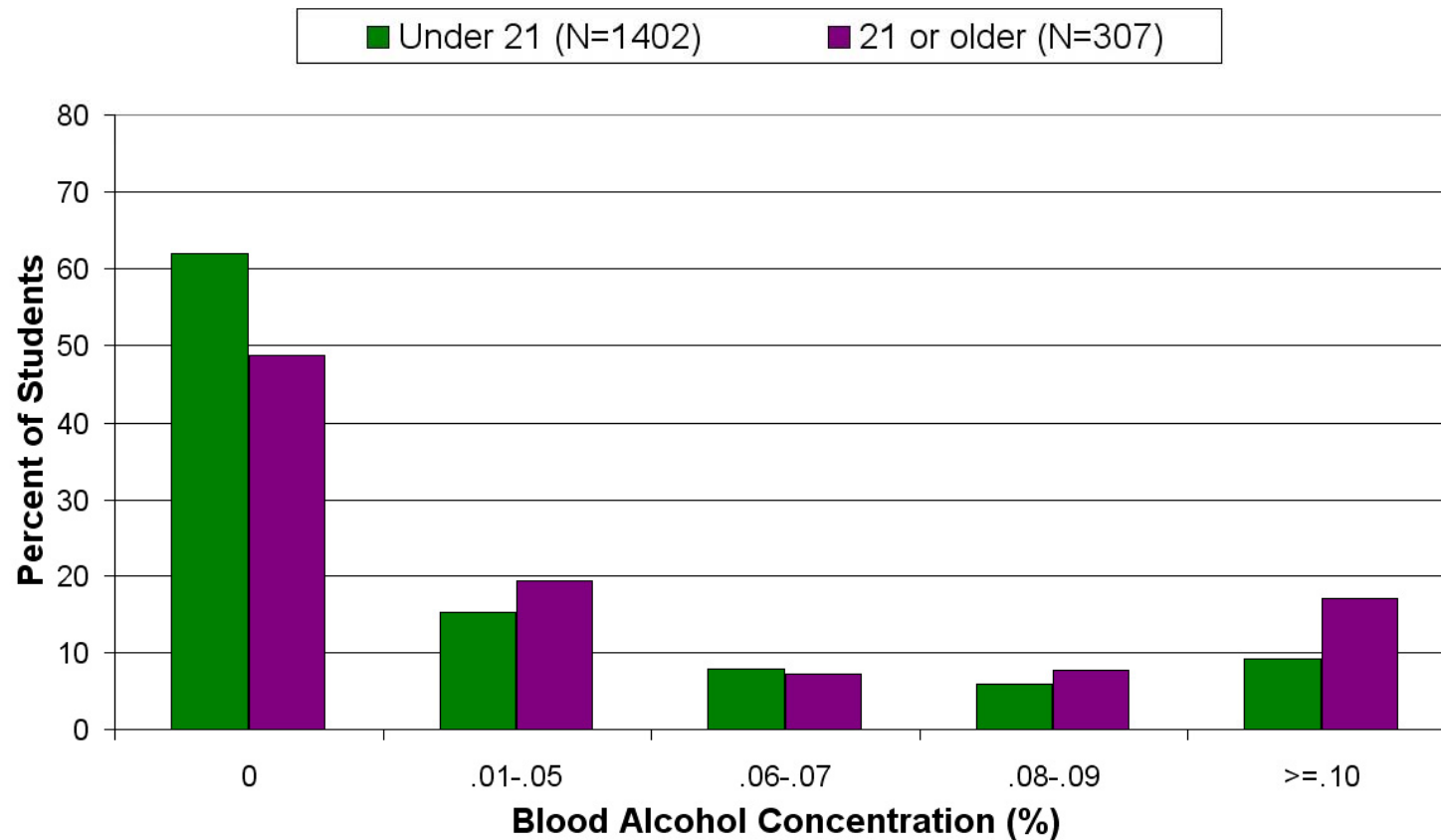
# BAC by Gender

**Distribution of BAC levels of HWS students returning home late at night by gender**



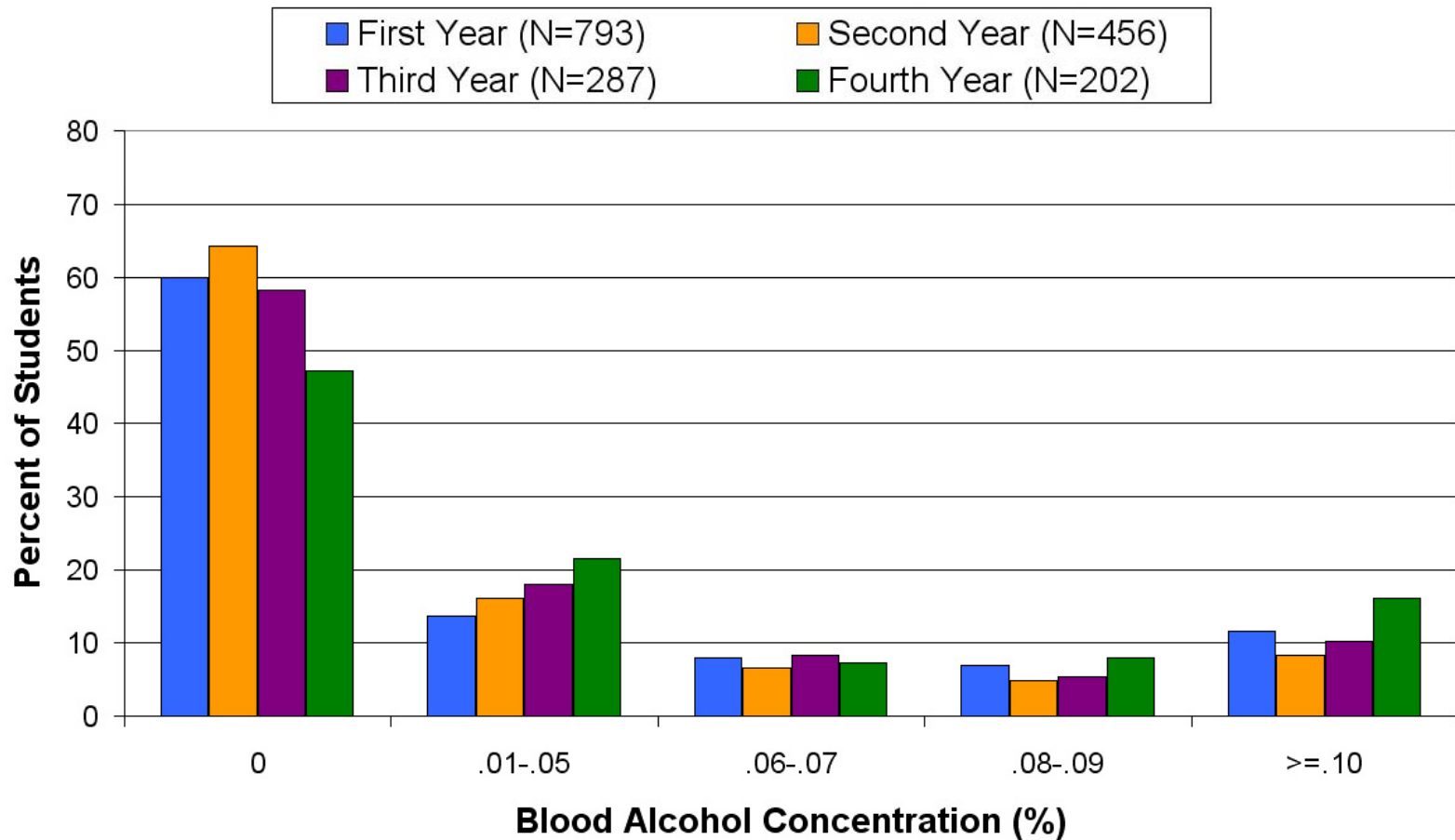
# BAC by Underage/Of Age

**Distribution of BAC levels of HWS students returning home late at night by underage/of age**

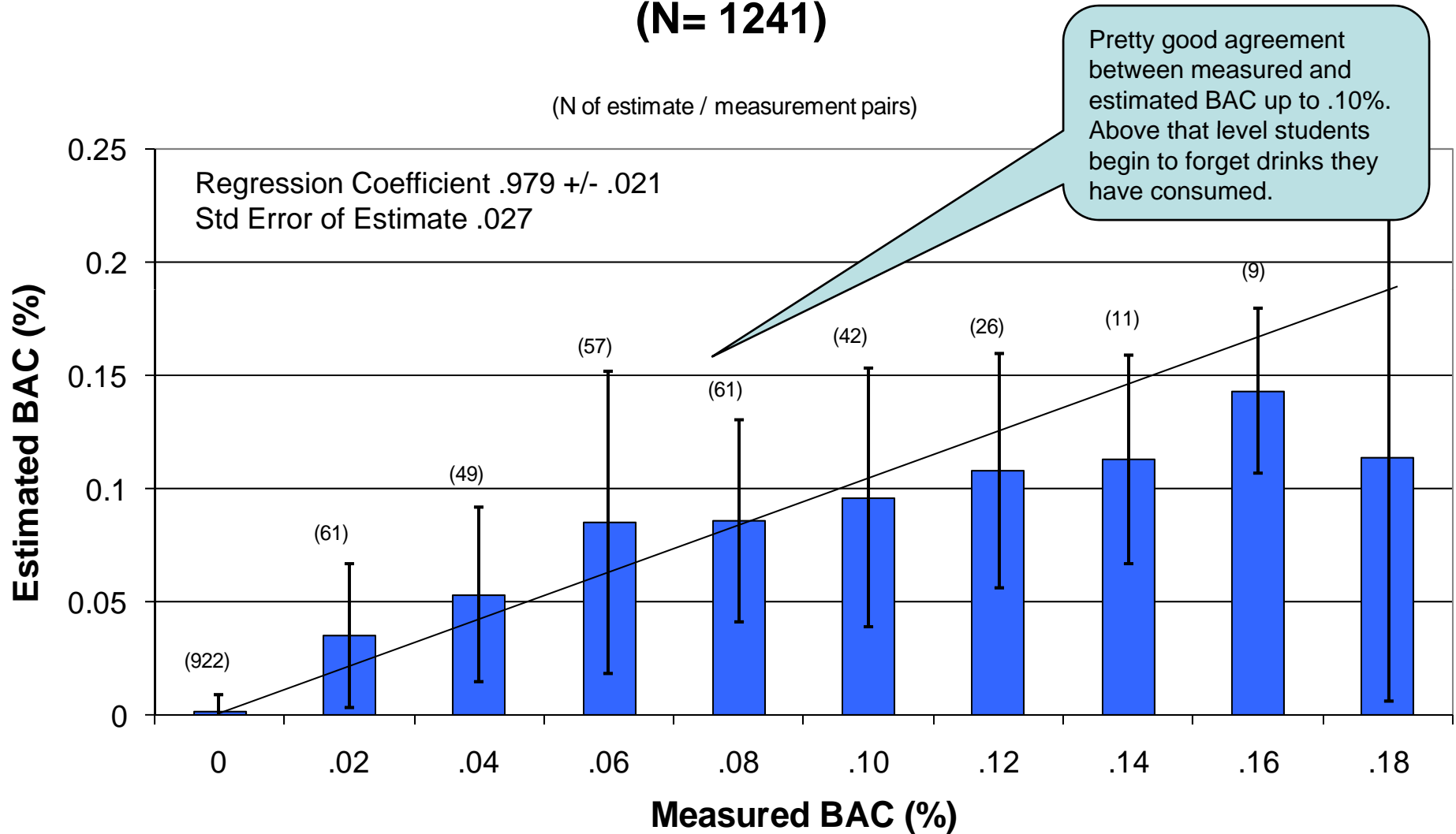


# BAC by Class Year

**Distribution of BAC levels of HWS students returning home late at night by class year**



# Correlation of measured BAC with estimated BAC (NHTSA method) from self-report drinking behaviors (N= 1241)



# Perceptions of Intoxication: Risk Factor?

		Perceived Intoxication Level (% within level)			
		Sober	A little Buzzed	Pretty Drunk	Wasted
Meas BAC (g/dL)	0	66.9	8.6	1.3	0
	.01-.05	26.5	41.1	10.4	4.2
	.06-.07	1.3	19.6	20.8	8.3
	.08-.09	1.3	14.7	18.2	16.7
	$\geq .10$	4.0	16.0	49.4	70.8

51.6%  
Accurate

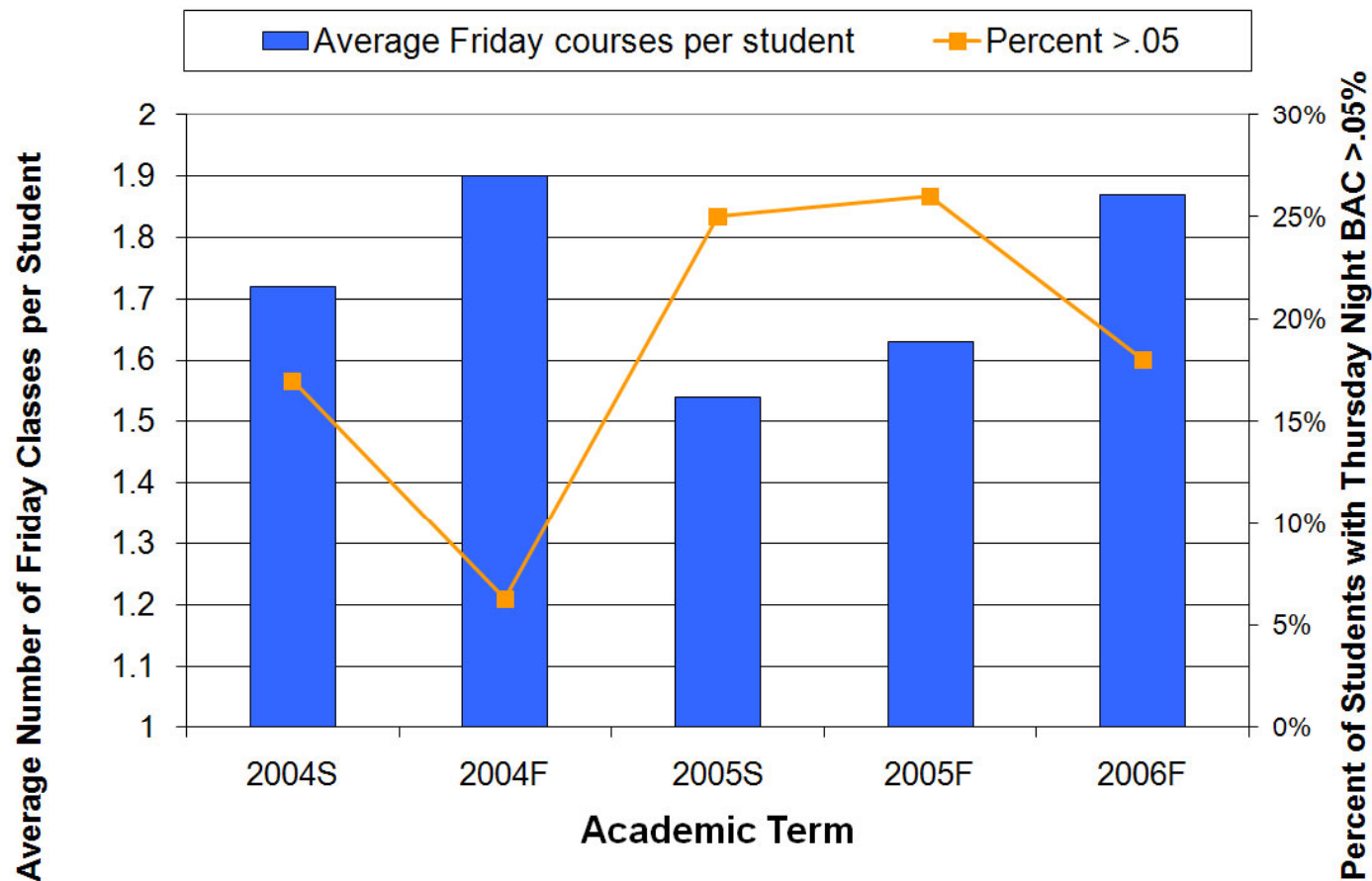
7.2%  
Over-  
Estimate

40.8%  
Under-  
Estimate

# How well does Friday course enrollments predict Thursday night drinking?

## Changing Friday enrollment patterns and Thursday night drinking

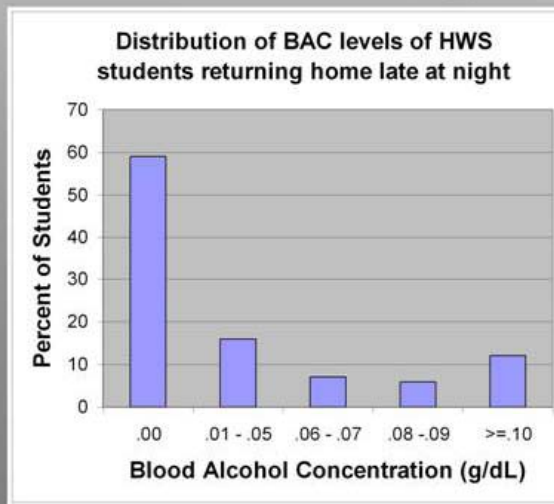
The more academically rigorous Friday is the less drinking on Thursday night!





# 75% of HWS Students Blew a 0.05 or lower BAC Returning Home Late at Night

**Data collected from 1,261 randomly selected students returning to residence halls late at night between 11pm and 3am during Spring '03, Fall '03, Spring '04, Fall '04, and Spring '05**



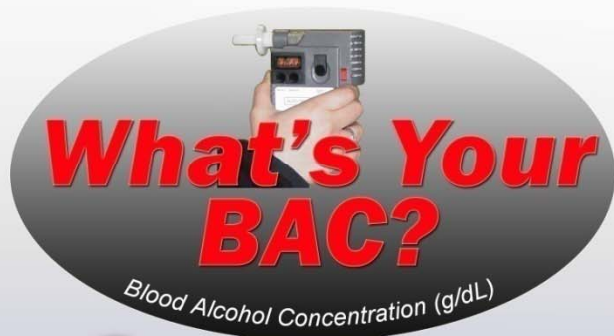
*BAC measurements were collected every night of the week (59% of sample from school nights, 41% from weekend nights). Men are 53% of the sample and women are 47% of the sample.*

*These results were obtained from chemistry department independent study and honors students advised by Professor David W. Craig: Davidek Heron (H03), Maranda Bliss (WS03), Zachary Schneider (H04), Matthew Yarger (H04), Jeffrey Quinto (H05), Adam Bordonaro (H05), Lauren Gianniny (WS05), and Andrew Stern (H05).*

*See <http://people.hws.edu/craig/bac> for more information*

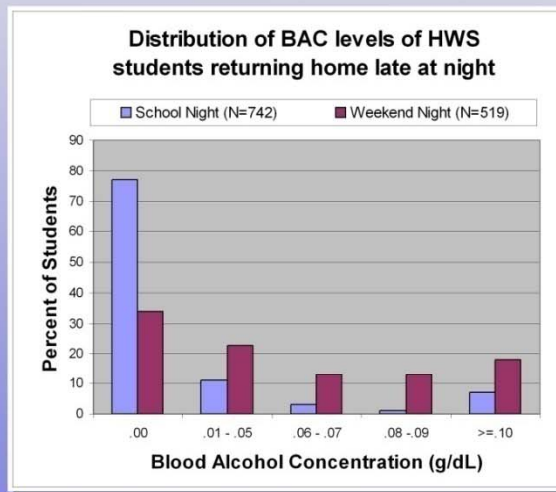
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# 88% on School Nights and 56% on Weekend Nights Blew a 0.05 or lower BAC Returning Home Late at Night

**Data collected from 1,261 randomly selected students returning to residence halls late at night between 11pm and 3am during Spring '03, Fall '03, Spring '04, Fall '04, and Spring '05**



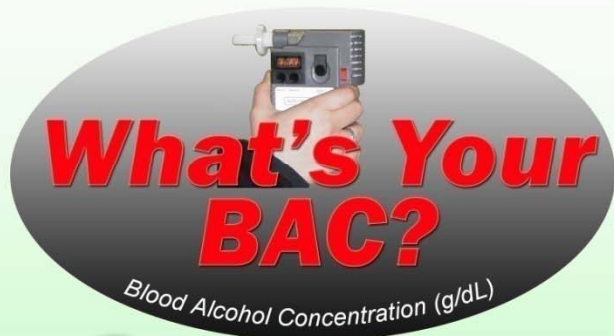
Blood Alcohol Concentration (BAC) and Behavioral Effects	
BAC (g/dL)	Average Effects
.01 - .05	Between .02 to .04 most people are feeling relaxed, energetic and happy. Time seems to pass quickly. At .05 motor skills may be slightly impaired.
.06 - .07	Giddiness, lowered inhibitions, and impaired judgment; an individual's ability to make rational decisions concerning personal capabilities is affected, continued loss of coordination.
.08 - .09	Muscle coordination definitely impaired and reaction times increased; sensory feelings of numbness in the cheeks and lips and extremities. A BAC of 0.08 is the DWI limit for New York State and most other states.
.10 or higher	Clear deterioration of coordination and reaction times; individuals may stagger and speech become slurred; judgment and memory further affected. Continued depression of motor, sensory, and mental functions at higher levels. Loss of consciousness between 3 and 4.

Ref: Corry, JM and Cimbalic, P. (1985). *Drugs: Facts, Alternatives, Decisions* (p171). Wadsworth Publishing Co.

BAC measurements were collected every night of the week (59% of sample from school nights, 41% from weekend nights). Men are 53% of the sample and women are 47%.

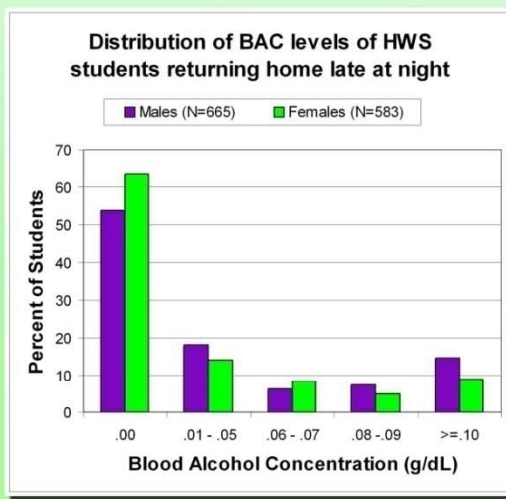
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See <http://people.hws.edu/craig/bac> for more information



# 72% of Males and 78% of Females Blew a 0.05 or lower BAC Returning Home Late at Night

**Data collected from 1,261 randomly selected students returning to residence halls late at night between 11pm and 3am during Spring '03, Fall '03, Spring '04, Fall '04, and Spring '05**



Blood Alcohol Concentration (BAC) and Behavioral Effects	
BAC (g/dL)	Average Effects
.01 - .05	Between .02 to .04 most people are feeling relaxed, energetic and happy. Time seems to pass quickly. At .05 motor skills may be slightly impaired.
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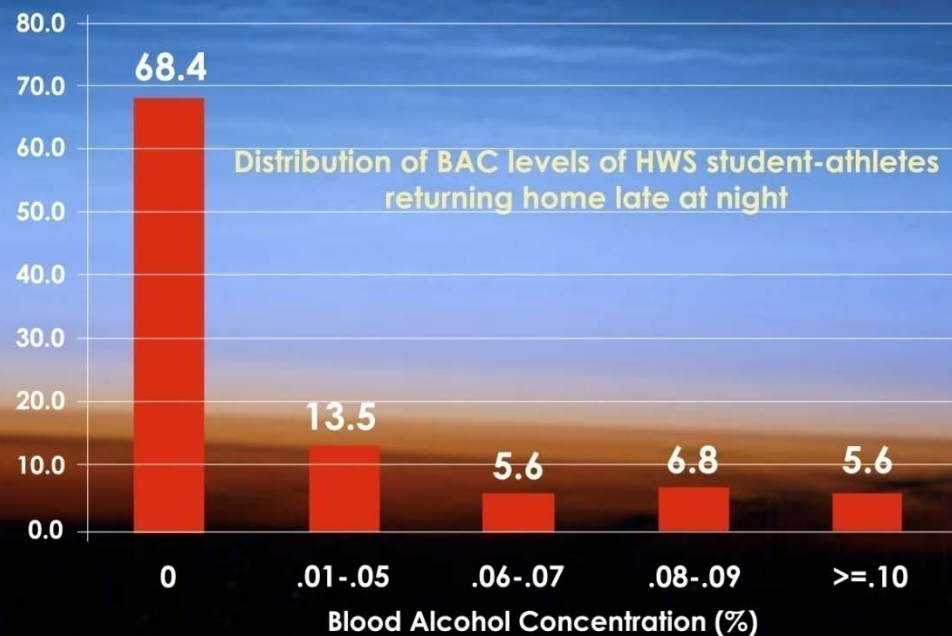
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**See <http://people.hws.edu/craig/bac> for more information**

# 82% of HWS student-athletes blew a 0.05 or lower BAC returning home late at night



Source: Data collected from 194 randomly selected student-athletes returning to residence halls late at night between 11pm and 3am every night of the week during Fall '04, Spring '05, and Fall '05.

These results were obtained from chemistry department independent study and honors students advised by Professor David W. Craig: Jeffrey Quinto (H05), Lauren Gianniny (WS05), Andrew Stern (H05), Adam Bordonaro (H06), John Bowie (H06), Patrick O'Brien-Gorman (H06), Sam Breier (H06), Alana Braren (WS06), and Lia Blue (WS06)

# **Survey of Alcohol Use, Safety, and Sexual Behavior**

**A web-delivered survey  
developed as part of  
undergraduate research**

# Data Collection Results

- 398 randomly selected subjects stratified equally by class year and gender
- Invitation to participate delivered by electronic mail with 3 follow up reminders
- 203 respondents after 14 days representing 51% response rate
- 42% male, 58% female
- 26% 1<sup>st</sup> year, 24% 2<sup>nd</sup> year, 25% 3<sup>rd</sup> year, 25% 4<sup>th</sup> year

# Norms messages from student survey

- 88% of the class believe that one should never drink alcohol to an intoxicating level that interferes with academics or other responsibilities. (77% in 2007 senior survey)
- The majority of HWS students drink three or fewer drinks with alcohol or none at all when partying. (Four drinks in 2007 senior survey)

# **Using Clickers in the Curriculum and Co-Curriculum to Collect Data and Disseminate Alcohol Norms**

- First year seminar residence hall presentations
- Science of Feeling Good and Feeling Bad with Alcohol lectures

# What are 'Clickers'?





# Using Clickers you can...

- Ask anonymous survey questions in a group setting
- Collect and code results instantaneously
- Display results to audience immediately
- Assess success in learning immediately  
(Did we reduce harmful misperceptions?)

# BOOZE NEWS

## Alcohol in College:

What is myth? What is reality?

### First Year Seminar 060

Greg Alberti, Charlie Barth, Brittany Callaghan, Andrew Dennis, Mike Faracca, Katherine Hoering, Leslie Hopke, Bryan Lee, Meredith Levensen, Molly Lieberman, Laura Patterson, Tyler Vincent, Liz Witbeck, Cynthia Woodward, and Prof. David W. Craig

### **Goals for this meeting:**

1. Have some fun!
2. Help you become seekers of truth with regard to alcohol use on our campus.
3. Help you achieve more academically.

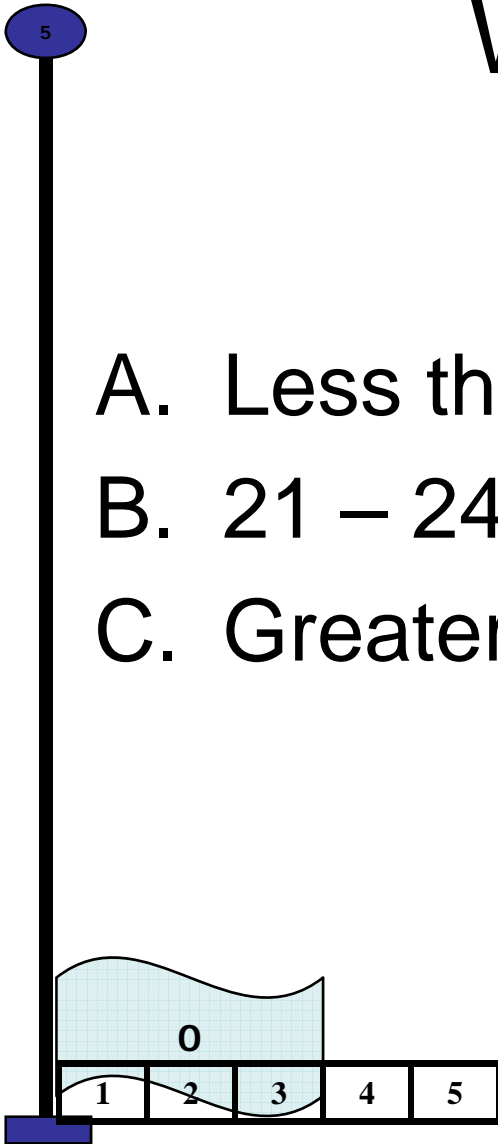
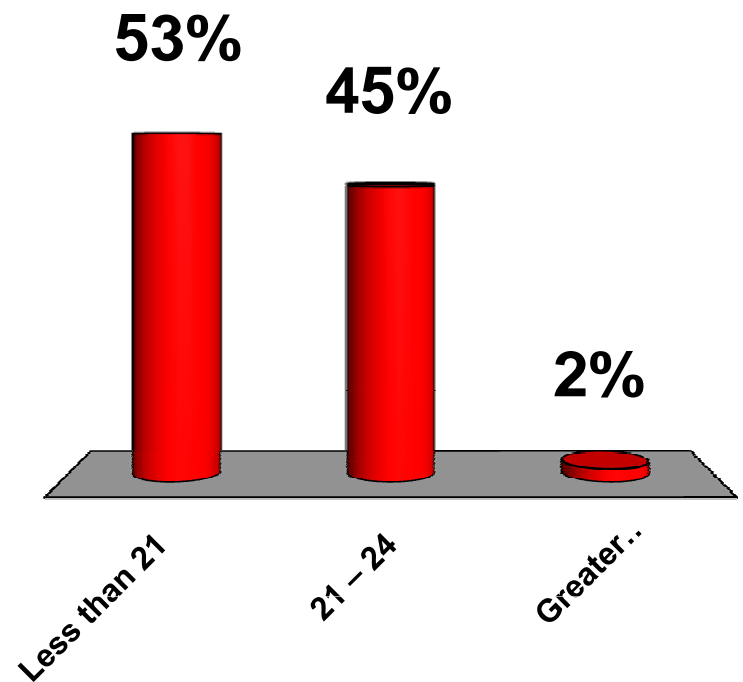
# Informed Consent Form

In this presentation we will be asking some questions about your attitudes and personal use of alcohol. We will also ask you questions about what you think is typical among students at HWS. All of these responses will be **anonymous**. No individual response will be identified. We will share with you distributions of question responses from this group and from surveys of the campus at large during this presentation. Your participation in answering these questions is **voluntary**. You may skip any questions that you do not wish to answer. If you are under the age of 18 you should not answer the survey questions. Data from this session will be saved and merged with data from other residential hall sessions to support research on this topic. We will send summary posters of the merged results to your RA to share before the end of the term.

First, we need some information about you.

# What is your age?

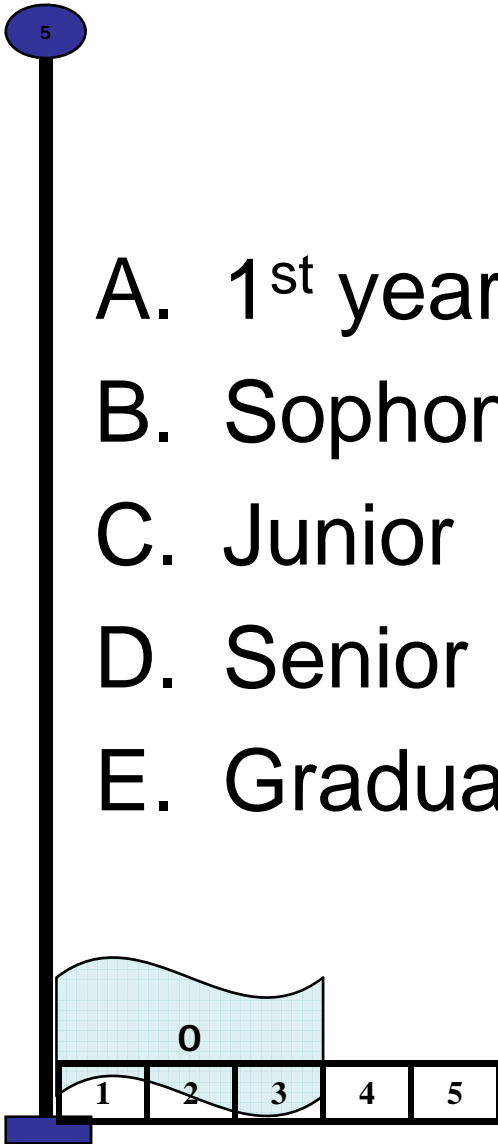
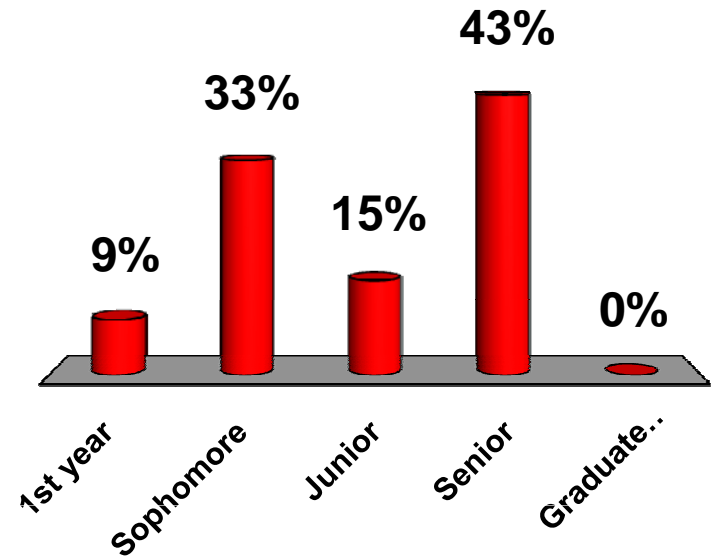
- A. Less than 21
- B. 21 – 24
- C. Greater than 24



# What is your class rank?

5

- A. 1<sup>st</sup> year
- B. Sophomore
- C. Junior
- D. Senior
- E. Graduate student

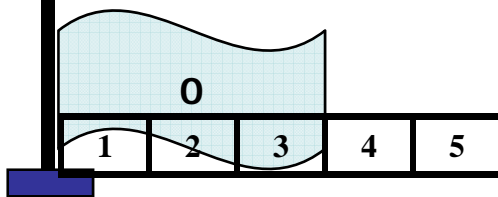
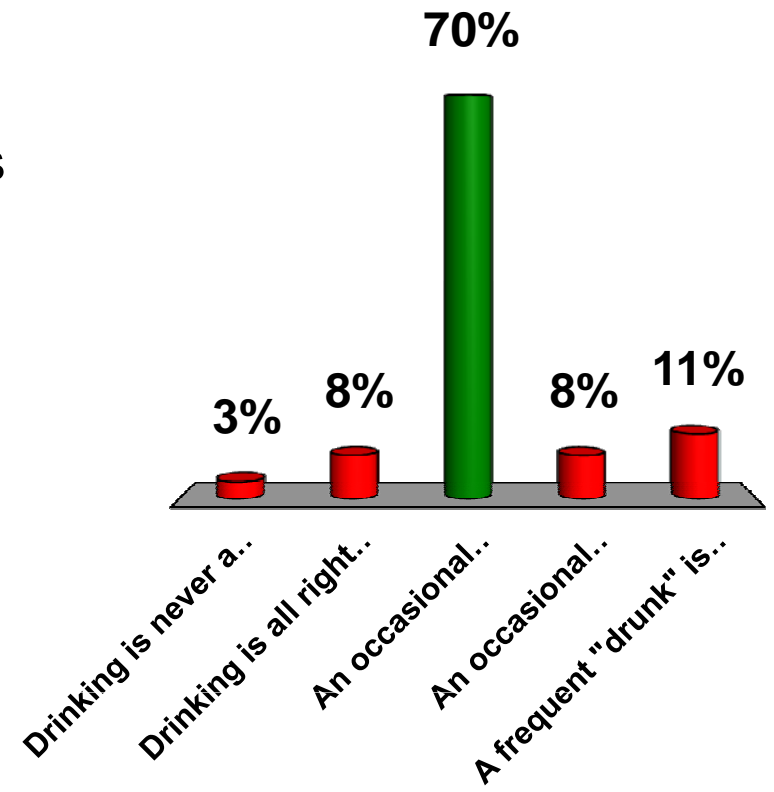


# Your personal attitude about alcohol.

Which statement below about drinking alcoholic beverages do you feel best represents your own attitude?

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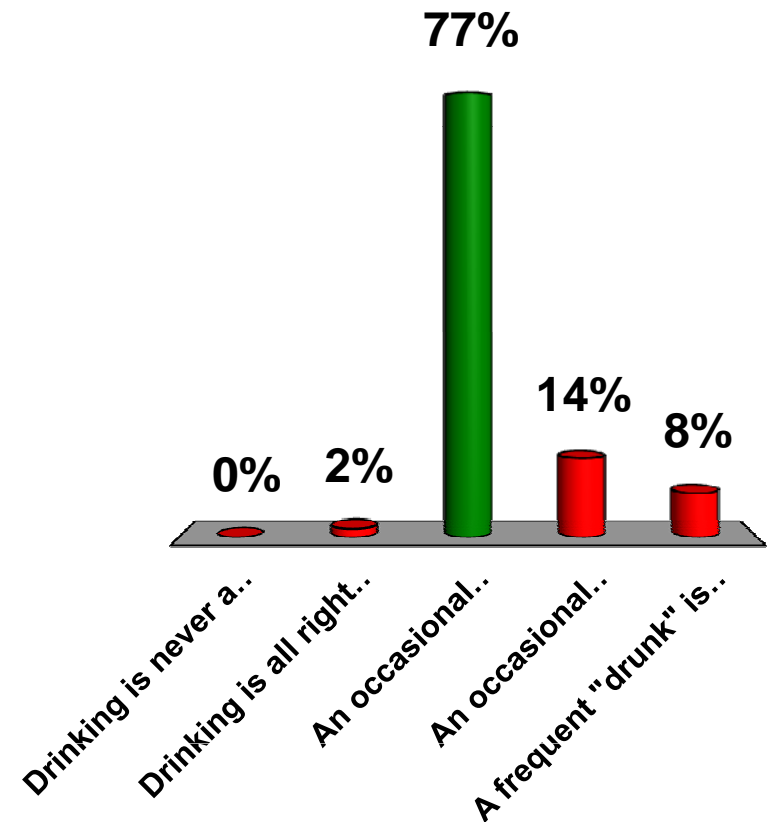
- A. Drinking is never a good thing to do.
- B. Drinking is all right but a student should never get drunk.
- C. An occasional "drunk" is OK as long as it doesn't interfere with academics or responsibilities.
- D. An occasional "drunk" is OK even if it does interfere with academics or responsibilities.
- E. A frequent "drunk" is OK if that's what the individual wants to do.



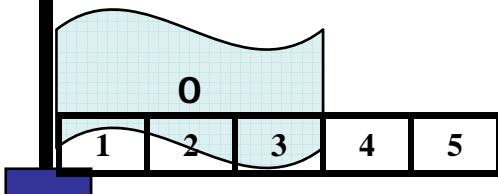
## Now for your perception of other students...

Which statement below about drinking alcoholic beverages do you think is the **most common attitude among students in general here?**

- A. Drinking is never a good thing to do.
- B. Drinking is all right but a student should never get drunk.
- C. An occasional "drunk" is OK as long as it doesn't interfere with academics or responsibilities.
- D. An occasional "drunk" is OK even if it does interfere with academics or responsibilities.
- E. A frequent "drunk" is OK if that's what the individual wants to do.



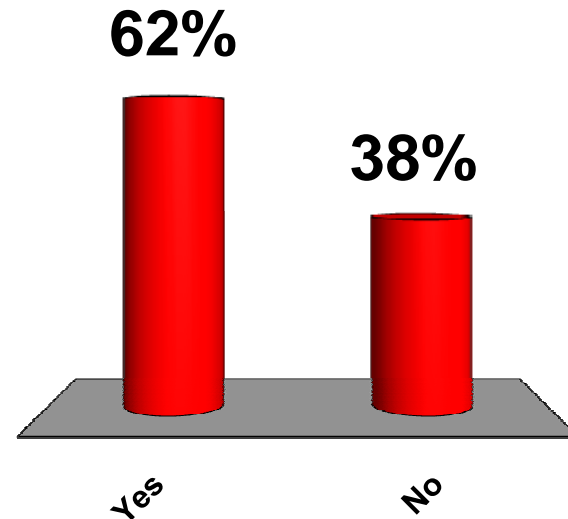
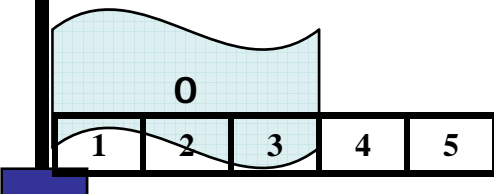
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Do you believe that nearly 8 out of 10 HWS students have a BAC of 0% and nearly 9 out of ten have a .05 or lower BAC on school nights when returning home late at night 11pm to 3am?

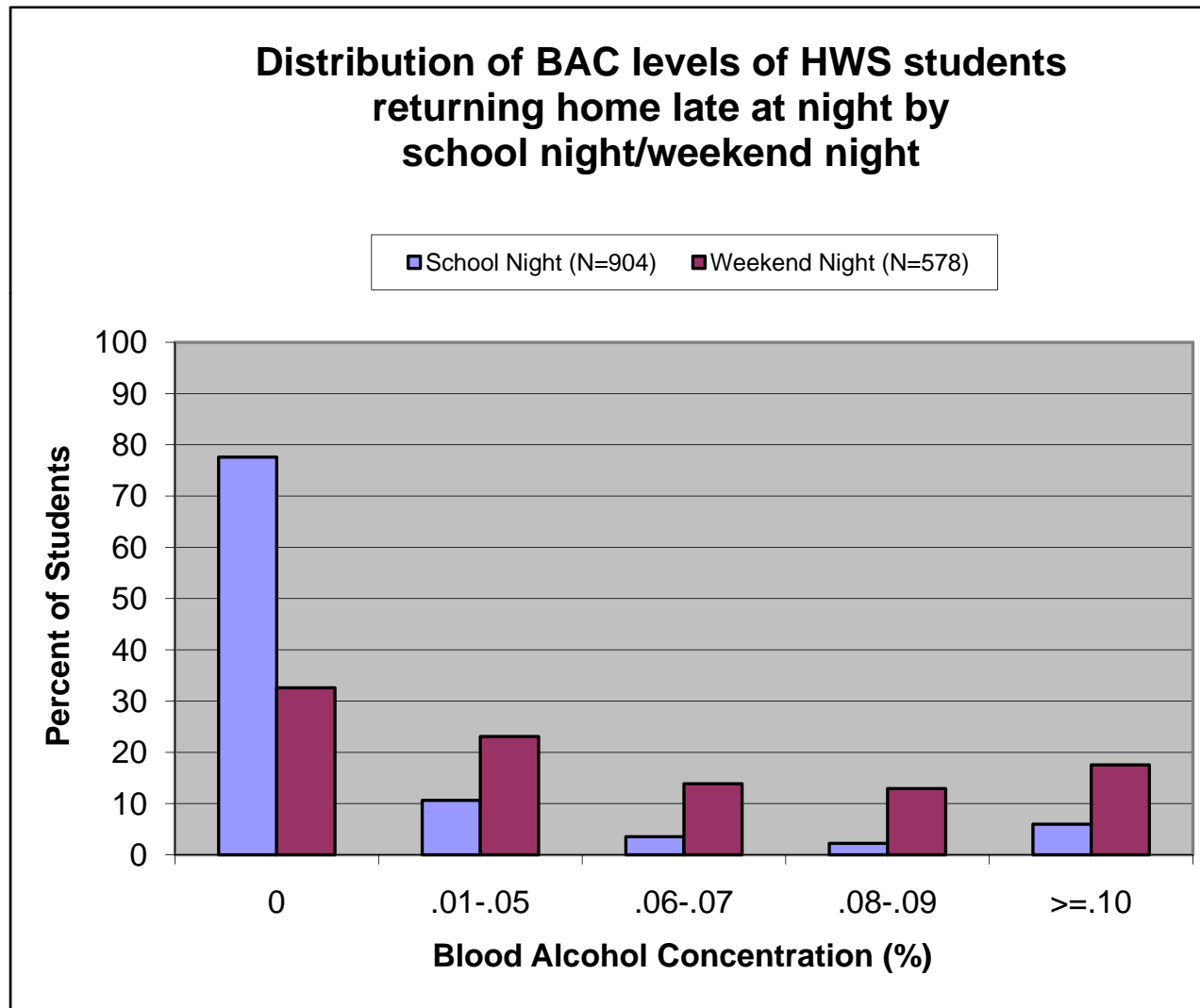
1. Yes

2. No

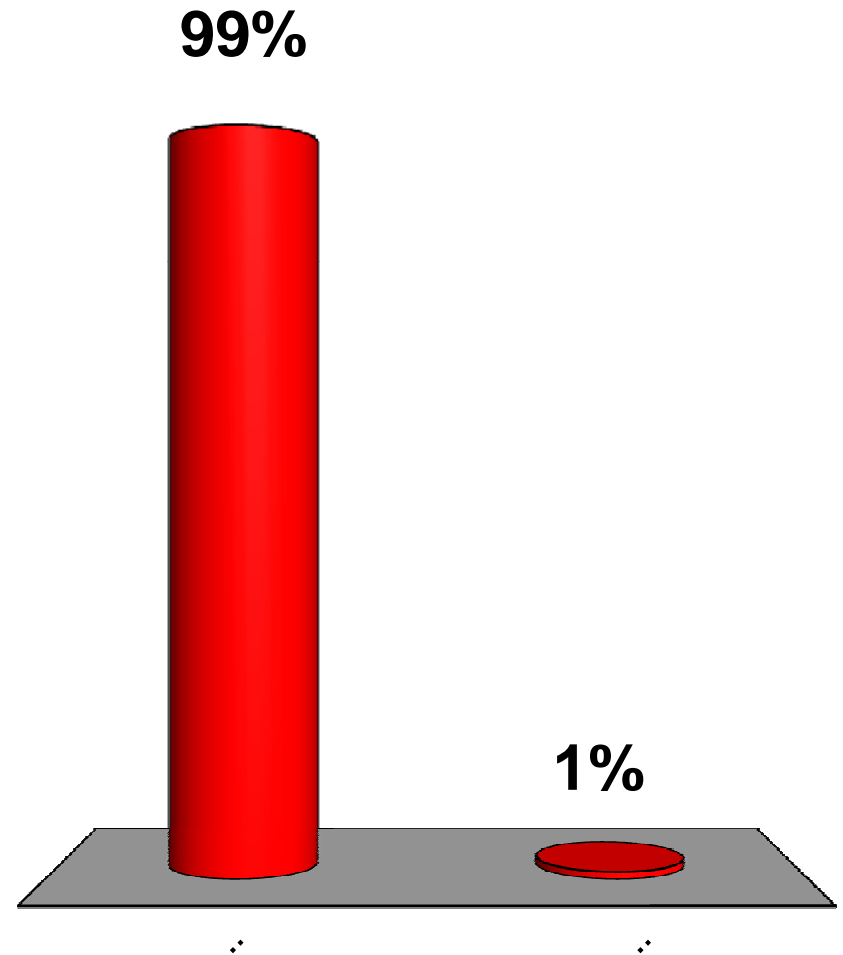
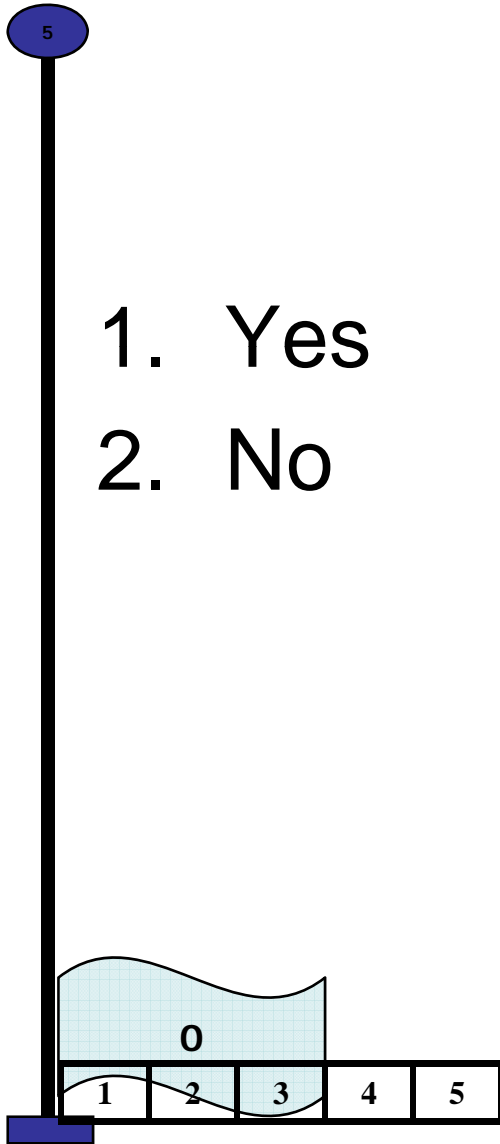




# BAC on School Nights and Weekend Nights



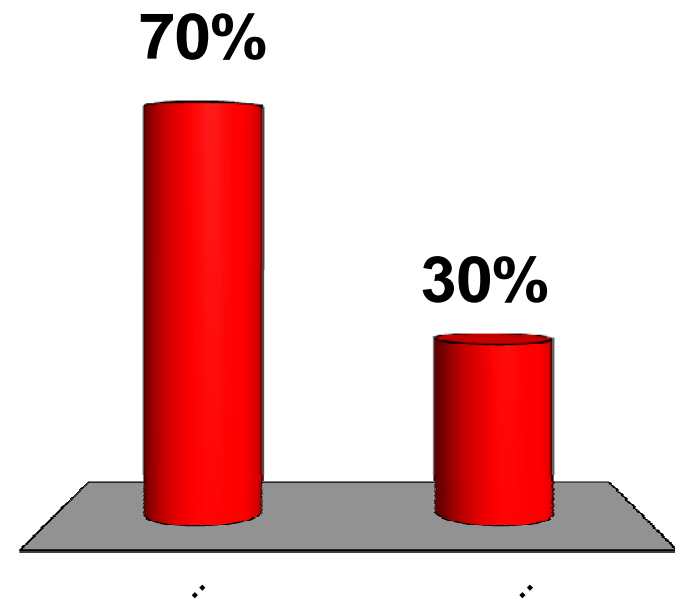
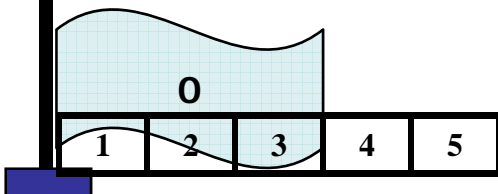
Have you answered these questions honestly and to the best of your ability?



Do you believe that nearly 8 out of 10 HWS students have a BAC of 0% and nearly 9 out of ten have a .05 or lower BAC on school nights when returning home late at night 11pm to 3am?

1. Yes

2. No



The End