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ABSTRACT

This study examined attitudes and practices in two risk-taking areas of behavior while under the influence of alcohol--driving and sexuality--within important campus peer subcultures defined by class level and residency associations. Data were drawn from a research project to explore these and other related variables in a major northeastern University. Subjects (N=240), randomly selected from each of seven campus subpopulations (the four undergraduate levels, graduate students, faculty, and staff) were mailed survey questionnaires that assessed: (1) potentially predisposing risk factors, such as demographics, alcohol knowledge, peer usage and pressure, alcohol and drug availability, motivations for drinking, mood, and place of residence; (2) level of respondent's alcohol use; (3) type and frequency of respondent's drug use; and (4) high risk behavior associated with substance use, including driving under the influence and unprotected sexual intercourse. Results, summarized and tabulated, suggest that alcohol and drug use, and associated risk-taking behaviors, vary considerably with both age and social environment, suggesting the influence of campus peer subcultures. Thus it might be productive to concentrate prevention and intervention efforts on identified high-risk peer subcultures, involving peer leaders and peer counseling programs in efforts to modify peer group norms. (Nine references, 5 tables and 12 figures are included.) (TE)

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**DIFFERENTIAL SUBSTANCE USE PATTERNS  
IN A UNIVERSITY COMMUNITY**

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# DIFFERENTIAL SUBSTANCE USE PATTERNS IN A UNIVERSITY COMMUNITY

## INTRODUCTION

For over two decades our universities have mirrored American society in reflecting increasing rates and changing patterns of substance use, abuse and related dysfunctions (Salz & Elandt, 1986; Johnston et al., 1986). Since the college years represent an especially important developmental period in decision making and identity formation, and since driving under the influence remains the leading cause of death in this age group (NHTSA, 1988), the need for timely and effective prevention and intervention programs with this population has been increasingly recognized (Anderson & Gadaletto, 1985). In addition, there is a growing concern regarding AIDS in the adolescent population (USPHS, 1988), and the association of substance use with injudicious and unprotected sexual activities among secondary and college students has therefore become an area in need of investigation.

Initially, universities reacted to student substance abuse with denial or punitive measures, but in recent years have attempted to approach the problem through a variety of educational, preventive, and treatment approaches. However, few programs are comprehensively developed and coordinated, or systematically address the unique needs and characteristics of the various campus subpopulations (Bloch & Ungerleider, 1988). In particular, high risk subpopulations need to be identified and programs developed which specifically target these groups and their areas of special risk.

Peer group norms and pressures are a well recognized factor in substance use and abuse (McLaughlin et al., 1985; Patterson et al., 1988). This paper examines attitudes and practices in two risk-taking areas of behavior under the influence of alcohol - driving and sexuality - within important campus peer subcultures defined by (1) class level, and (2) residency associations. The data was drawn from a research project designed to explore these and other related variables in a university community (Bloch & Ungerleider, 1988).

## METHODOLOGY

**SUBJECTS:** 240 subjects were randomly selected from each of seven campus subpopulations (the four undergraduate levels, graduate students, faculty, and staff) of a major northeastern university. This disproportionate stratified sampling ensures sufficient representation of each subpopulation to permit statistically meaningful between-group comparisons.

**PROCEDURE:** Survey questionnaires were mailed to respondents several days before their return to campus from spring break. Participation in the study was voluntary. The response rates for undergraduates, graduate students, and faculty/staff were 62%, 47%, and 55%, respectively, for an overall response rate of 58%, totalling 971 responses. The questionnaire incorporated items measuring:

- A. Potentially predisposing risk factors, including:
  - (1) respondent demographics; (2) alcohol knowledge; (3) peer usage, acceptance, and pressure; (4) alcohol and drug availability; (5) motivations for drinking; (6) respondent mood; and (7) place of residence.
- B. Level of respondent alcohol use, adapted from Eng's Student Alcohol Questionnaire, yielding a quantity-frequency index (Eng's & Hanson, 1985);
- C. Type and frequency of respondent drug use;
- D. High-risk behaviors associated with substance use, including DUI incidents and unprotected intercourse.

## **RESULTS**

Although the methodology was cross-sectional, the striking differences in use patterns across different age groups suggest longitudinal trends. Faculty and staff data have been combined for purposes of comparison between age-peer categories. Most conspicuous were the following results:

1. Heavy drinking decreases steadily through the undergraduate years, from 13.7% among freshmen to 4.1% among seniors, and continues to decrease to 2.7% among graduate students and 1.2% among faculty/staff. Abstention also decreases, from 10.5% among freshmen to 1.7% among seniors. Correspondingly, there are substantial increases in the "light" and "moderate" drinking categories, suggesting progressive socialization of drinking behavior.

2. However, driving under the influence of alcohol (during past year) increases from 14.9% among freshmen to 24.6% among sophomores and remains at this approximate level throughout the rest of the university population. Since less than 1% report a DUI arrest, law enforcement consequences can be considered of negligible reinforcement value, and the rates do not appear to improve with chronological maturation.

3. Comparing undergraduate to graduate to faculty/staff populations, there is a marked *increase* in moderate drinking - from 24% to 46% to 62% among males, and from 30% to 37% to 40% among females. A corresponding *decrease* in moderate/heavy and heavy drinking occurs among males, from 43% to 18% to 11%. Among females, there is a decrease in this category from undergraduate to graduate populations, 20% and 8%, respectively, but the faculty/staff level of 11% equals that of males. Among student groups the rates of moderate/heavy and heavy drinking for women are approximately half that of men.

4. There is a substantial increase in the rate of undergraduates who have used drugs following the freshman year, from approximately 1/2 to 2/3. Further, approximately 20% of these users report driving after drug use.

5. Peer culture emerges as a prominent factor. The two best predictors of alcohol use are close friend and acquaintance use levels, while lower use is correlated with negative reactions of close friends. Within the fraternity/sorority culture, 83% report moderate to heavy drinking levels and 75% report some use of drugs, while non-members report corresponding levels of 55% and 59%, respectively. While 25% of non-members living on campus report little or no alcohol use and 48% report no drug use, no residents of fraternity/sorority houses fell in this drinking category and only 23% abstain from drugs. Fraternity/sorority members also report significantly higher frequencies of alcohol-related risk taking.

6. Higher use levels also occur among students living off campus. Only 10% of these students report little or no alcohol use, and only 21% abstain from drugs compared with 48% of on-campus students; however, only 63% report the moderate to heavy alcohol use which characterizes 90% of fraternity/sorority house residents.

7. Another interesting finding reflects the association between alcohol use and sexuality. Approximately 25% of undergraduates report sexual activity during the past year after drinking which otherwise might not have occurred. This behavior is reported by only 9% and 6% of graduate student and faculty/staff respondents, respectively. Similarly, 9% of undergraduates report unprotected intercourse after drinking, which is reported by only 3-4% of older respondents. Approximately 50% of all respondents report otherwise unlikely sexual activity and 25% report unprotected intercourse after drinking at some time in their lives.

8. Drugs and alcohol (for the underaged) were reported easily obtainable by nearly all students, most easily by off-campus students. This is despite clearly defined campus policies prohibiting these practices.

Selected results are represented in Tables 1-5 and Figures 1-12. All differences other than the alcohol and drug availability measures were statistically significant at the .05 level unless denoted "n.s."

## CONCLUSIONS

Alcohol and drug use, and associated risk-taking behaviors, vary considerably with both age and social environment, suggesting the influence of campus peer subcultures. These behaviors may play an important role in establishing peer group relationships and identifications, which are central developmental issues for undergraduates. Thus, it might be productive to concentrate prevention and intervention efforts on identified high-risk peer subcultures, involving peer leaders and peer counseling programs in efforts to modify peer group norms.

Driving under the influence increases following the freshman year and continues to occur at least once yearly among one in four students, and among 60-70% of the university community at some time in their lives. This appears to be an area in need of focused prevention efforts.

Alcohol-related sexual risk-taking is correlated with level of alcohol use in the undergraduate population and decreases with age following the sophomore year. This suggests that drinking for some may serve an anxiety reducing function in this crucial developmental area, with implications for targeting of public health prevention measures.

Fraternity/sorority membership is correlated with higher levels of alcohol use and with associated risk-taking behavior. Alcohol-specific prevention efforts might therefore be developed to target fraternal organizations. Also, drug use and risk-taking is greater among off-campus than on-campus students. This suggests that the younger students residing in dormitories need to receive better preparation for responsible practices before moving off campus in their junior and senior years.

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**Table 1**  
**Alcohol Use, Drug Use and Related Behaviors**  
**by Age-Peer Group (Percentages)**

	Freshmen	Sophomores	Juniors	Seniors	Graduate Students	Faculty/Staff
<b>Level of alcohol use:</b>						
Heavy	13.7	9.4	4.7	4.1	2.7	1.2
Moderately heavy and heavy	37.2	35.6	26.0	24.8	14.2	11.7
<b>Drug use:</b>						
At least weekly	3.9	6.0	9.4	7.1	3.5	1.6
Any use	46.1	66.4	61.4	68.0	53.1	42.6
<b>Alcohol-related high risk behavior at least once in past year (among population who drink):</b>						
Driven after knowing had too much to drink	7.1	15.5	9.1	11.4	7.6	7.3
Driven after having several drinks	14.9	24.6	20.7	26.0	23.4	26.5
<b>Drug-related high risk behavior at least once in past year (among population who have used drugs):</b>						
Taken drugs while driving	9.1	9.0	12.0	17.8	11.3	4.8
Driven a car after using drugs	19.7	21.3	17.3	23.4	11.3	7.6
<b>Alcohol-related sexual behavior at least once in past year (among population who drink):</b>						
Engaged in unprotected intercourse when otherwise might not have	7.1	12.0	7.5	9.0	3.8	2.9
Sexually active when otherwise might not have been	21.3	32.4	27.5	18.0	9.4	5.7



**Table 2**  
**Sexual Behavior of Undergraduates Under Alcohol Influence**  
**by Level of Alcohol Use (Percentages)**

	Infrequent	Light	Moderate	Moderately Heavy	Heavy
<b>Sexually active when otherwise might not have been:</b>					
at least once in past year	6.5	16.3	26.0	37.7	45.8
in lifetime	20.8	40.6	50.9	59.1	64.6
<b>Engaged in unprotected intercourse</b>					
<b>when otherwise might not have:</b>					
at least once in past year	3.9	3.9	8.1	15.3	18.8
in lifetime	7.8	14.1	21.7	33.6	33.3

**Table 3**  
**Level of Alcohol Use**  
**by Fraternity/Sorority Membership (Percentages)**

	Fraternity/Sorority living in house	Fraternity/Sorority not living in house	Not Member of Fraternity/Sorority
<b>Level of alcohol use:</b>			
Heavy	22.6	13.0	6.9
Moderately heavy to heavy	64.5	41.3	28.3

**Table 4**  
**Risk Taking Under the Influence of Alcohol**  
**by Class Level and On or Off Campus Residency,**  
**and by Fraternity/Sorority Membership (Percentages\*)**

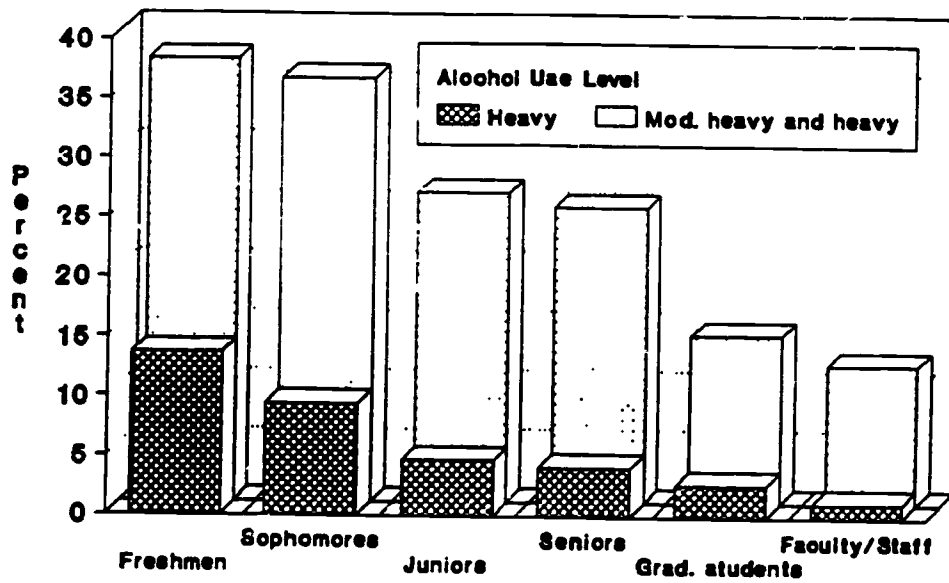
	Juniors, off campus	Seniors, off campus	Juniors, on campus	Seniors, on campus	Fraternity/ Sorority member	not Fraternity/ Sorority member
Driven after having several drinks	73.4	68.4	37.7	38.4	38.2	20.0
Driven after knowing had too much to drink	60.0	55.8	31.1	23.3	23.7	9.5
Sexually active when otherwise might not have been	64.5	63.2	44.3	33.3	59.2	45.3
Engaged in unprotected intercourse when otherwise might not have	33.3	37.9	17.1	11.6	26.3	20.9

\* among population who drink

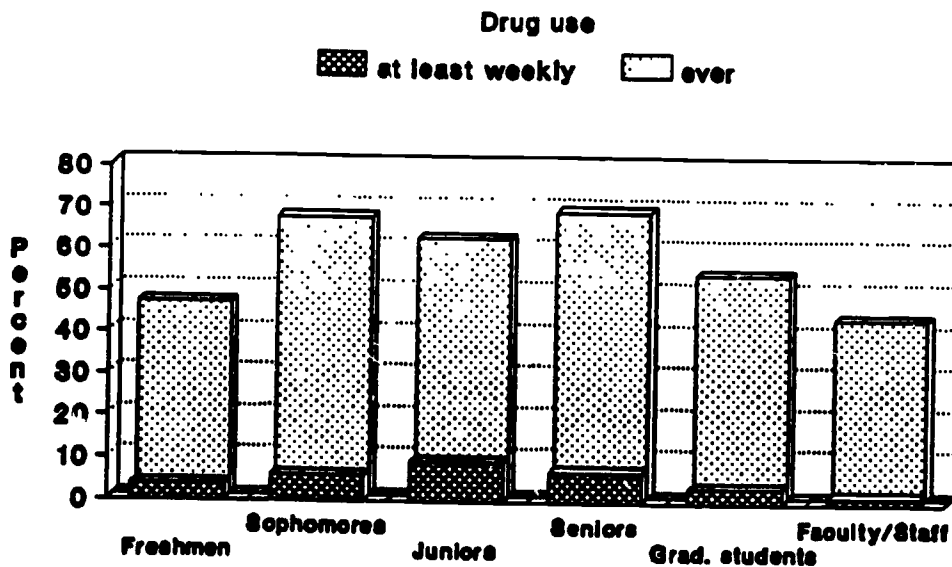
**Table 5**  
**Use and Ease of Obtaining Alcohol and Drugs**  
**by Form of Housing (Percentages)**

	living on campus	living off campus	living in Frat./Sor. house
<b>Ease of obtaining alcohol (when underage):</b>			
very easy	61.0	81.5	77.3
very or fairly easy	92.9	92.1	100.0
<b>Ease of obtaining drugs:</b>			
very or fairly easy	60.6	70.6	61.3
somewhat difficult, but possible	13.2	15.0	12.9
<b>Moderate-heavy to heavy alcohol use</b>	28.2	31.6	64.5
<b>Drug use:</b>			
any	52.2	79.1	77.4
moderate to heavy	10.8	27.2	23.6

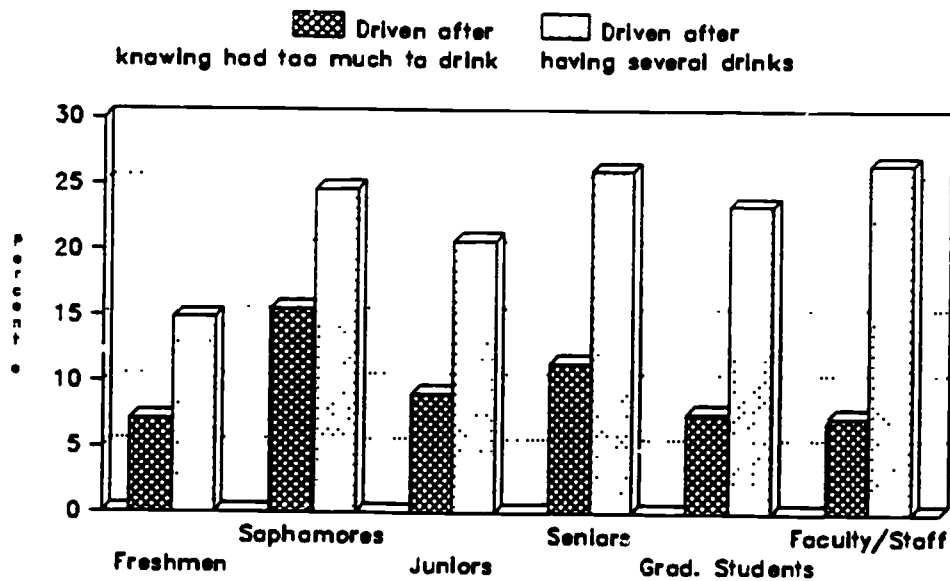
**Figure 1**  
**Alcohol Use**  
**by Age-Peer Group**



**Figure 2**  
**Drug Use**  
**by Age-Peer Group**

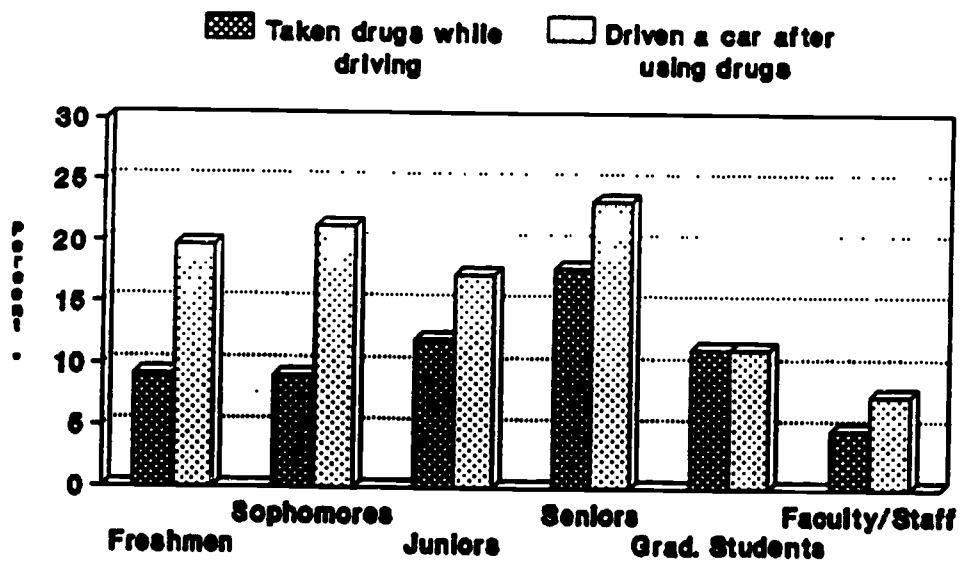


**Figure 3**  
**Alcohol-Related High Risk Behavior**  
**at Least Once in Past Year**



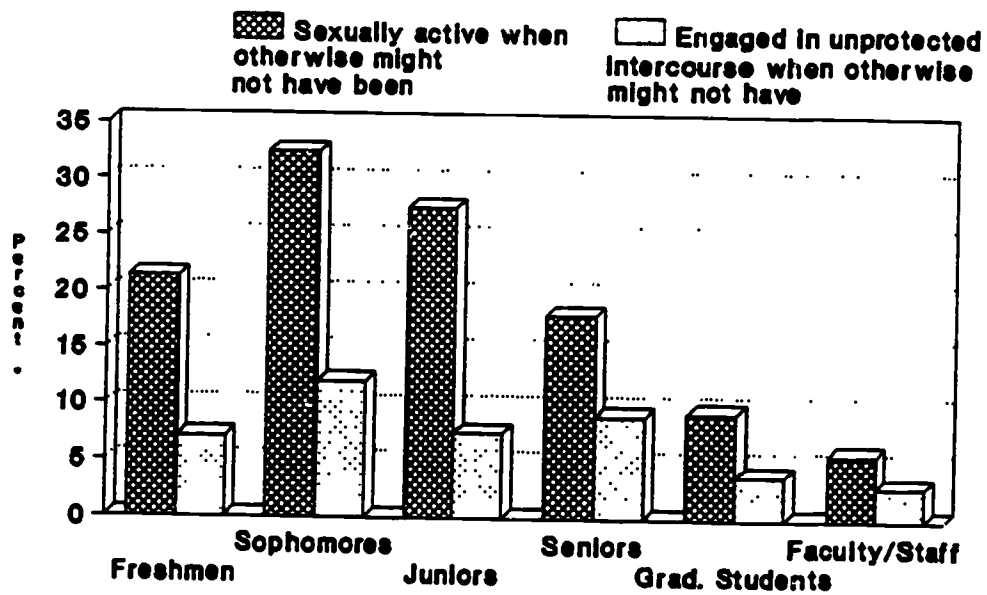
\* among population who drink

**Figure 4**  
**Drug-Related High Risk Behavior**  
**at Least Once in Past Year**



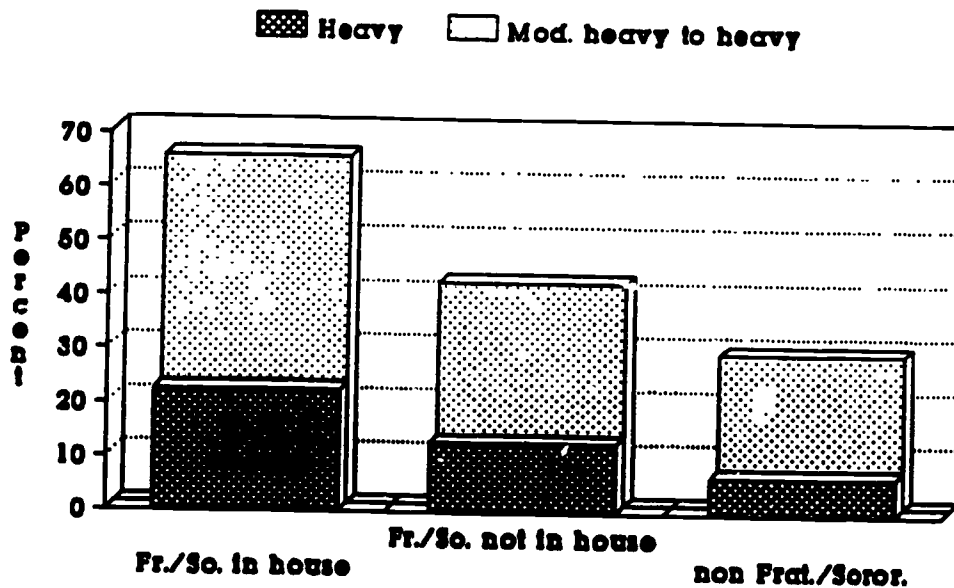
\* among population who have used drugs

**Figure 5**  
**Alcohol-Related Sexual Behavior**  
**at Least Once in Past Year**

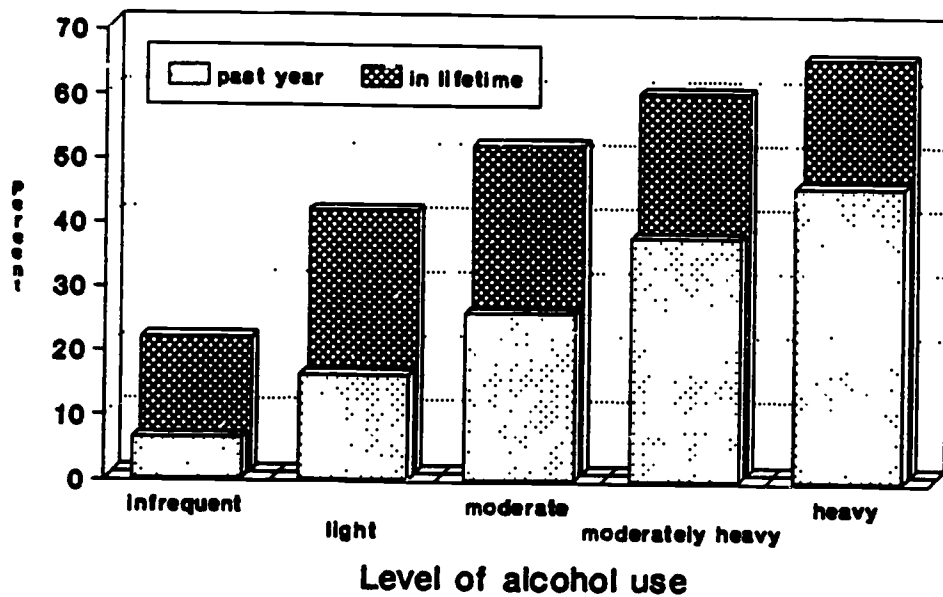


• among population who drink

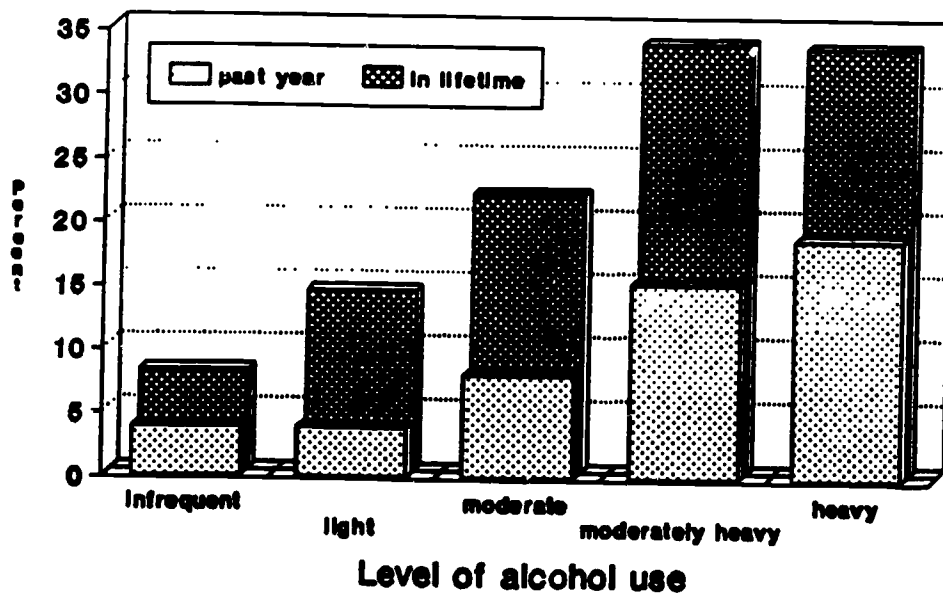
**Figure 6**  
**Level of Alcohol Use**  
**by Fraternity/Sorority Membership**



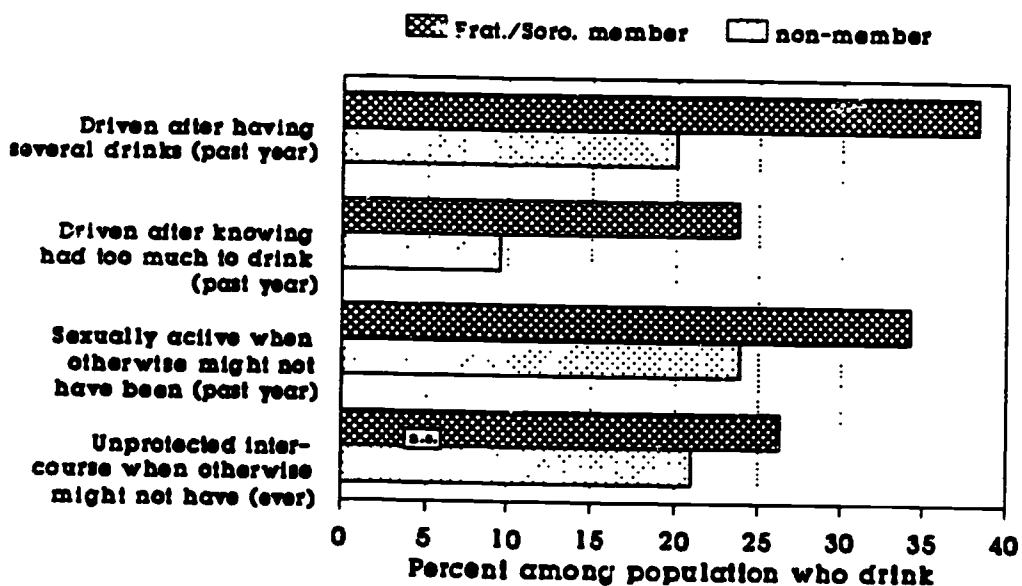
**Figure 7**  
**Sexually Active When Otherwise Might Not Have Been by Alcohol Use**



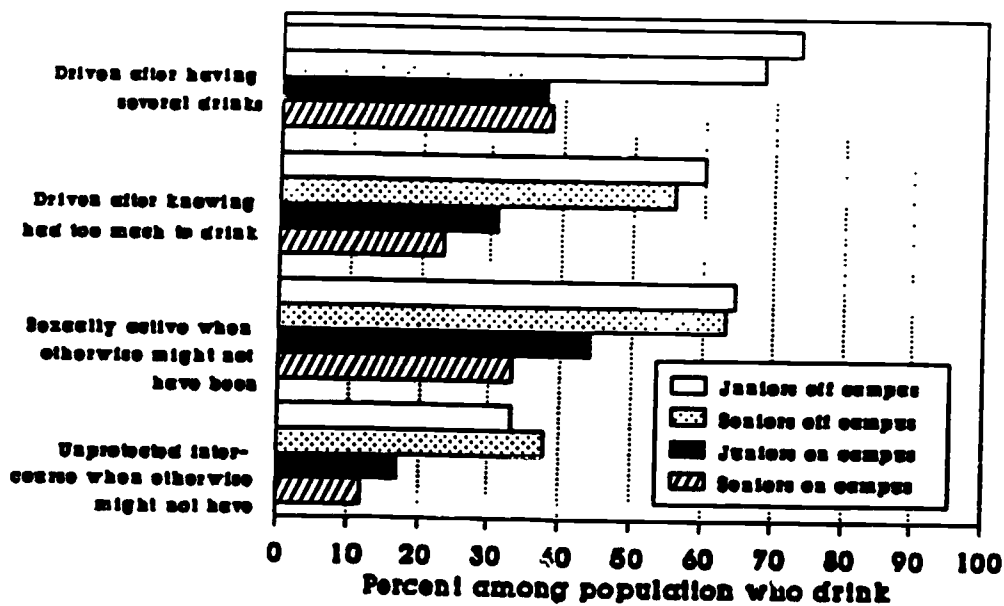
**Figure 8**  
**Engaged in Unprotected Intercourse When Otherwise Might Not Have by Alcohol Use**



**Figure 9**  
**Risk Taking Under the Influence**  
**by Fraternity/Sorority Membership**

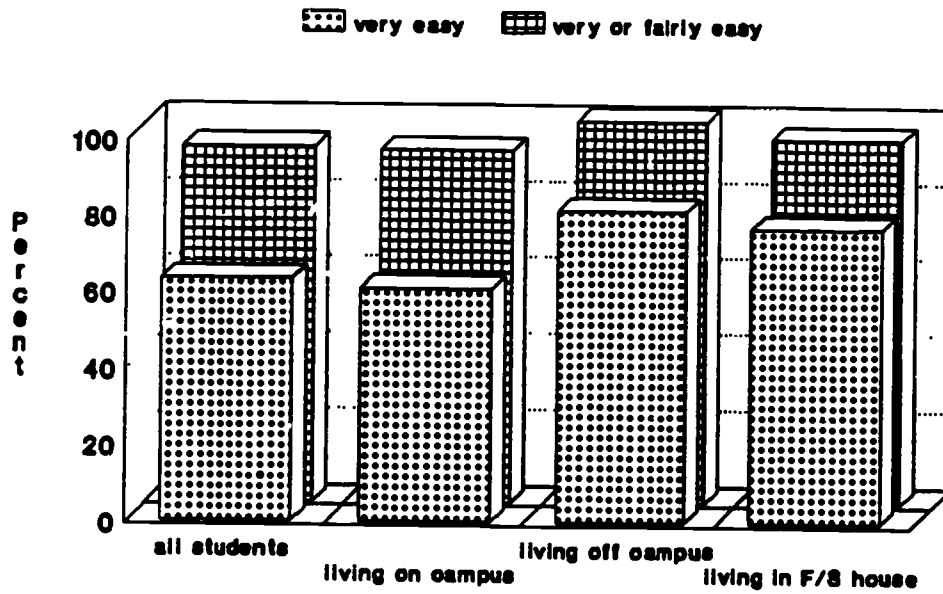


**Figure 10**  
**Risk Taking Under the Influence**  
**by On or Off Campus Residency**





**Figure 11**  
Ease of Obtaining Alcohol  
When Underage



**Figure 12**  
Ease of Obtaining Drugs

