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# A NATIONAL STUDY OF DRINKING PATTERNS AMONG UNIVERSITY STUDENTS.

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Paper presented: 32nd International Congress on Alcoholism and Drug Dependency,  
Warsaw Poland. September, 1979

*Digitalized for IUScholarWorks November, 2013*

*Retrieved from IUScholarWorks: <http://hdl.handle.net/2022/17154>*

## INTRODUCTION

Over the past 25 years, there have been many subtle social changes in the United States. During the 1950's university students, for the most part, were conservative, had little interest in politics or national affairs and rarely protested. During the late 1960's and early 1970's student ferment became frequent with protests against unpopular governmental policies. As part of this ferment they also experimented with a variety of drugs including marihuana.

In the last couple of years, however, there appears to be a trend again to a more conservative point of view and few political actions with the use of drugs such as marihuana leveling off. During the early 1970's, many educators became alarmed at "student drug use" and a variety of studies and educational efforts were forth- coming. However, the results of these surveys indicated that even though university students were experimenting with LSD, marihuana and other hallucinogenic substances, the drug of choice among most was alcohol. This resulted in many university administrators and faculty, not only being sensitized to the so-called "drug problem," but also, beginning to realize that students were having problems with the drug alcohol.

Because of this the United States government's National Institute on Alcohol Abuse and Alcoholism (NIAAA) and its National Clearinghouse for Alcohol Information began the "50 + 12 Project" to encourage alcohol awareness and education on university campuses. As part of this program students and staff from 62 selected universities around the country were invited to a conference in the fall of 1975 to discuss campus drinking problems and to share ideas about

alcohol awareness and education programs. These participants expressed concern about an apparent dramatic increase during the preceding one or two years in drinking and drinking-related behavior, such as damage to university property, trouble with the law and hangovers. However, few recent studies either refuted or validated this general opinion of the drinking-related behavior of university students.

Some studies over the past 25 years appeared to indicate that the prevalence of drinking had increased among women (1-12) and that students had little knowledge of drinking and the effect of alcohol (13-18).

These studies also investigated such variables as grade point average (1, 4, 11, 20), race (19, 20, 21, 44), grade level (9, 4, 11), religion (12, 23-32), and other variables in relationship to drinking patterns and problems with few dramatic changes (33).

However, in view of the recent opinions that drinking and drinking related problems had increased among university students, a purpose of this present study was to assess the current drinking patterns of a representative sample of universities involved with the government's NIAAA "SO plus 12" alcohol awareness project.

## METHODS

### Sample

Sample Selection and Limitations of the Study. Thirteen of the 62 schools in the "50 + 12" Project agreed to participate in this study during the 1975-76 academic year. Of the 13 Schools, 3 were in eastern, 4 western, 3 north central and 3 southern parts of the country (43). Eleven of the schools in the sample were large university's (10,000 or more students). Five of the schools were located in areas with populations of 500,000 or more, 3 in areas with populations between 100,000 and 500,000 and 5 in areas with populations under 100,000. Two of the four predominately Black colleges in the 50 + 12 Project were included in the sample, resulting in an over-representation of Blacks. However, the proportionately large number of Blacks was included to provide a sample large enough for statistical analysis.

At each of the 13 schools, a person from student personnel, the student health service or the department of health education was asked to select a sample of 100 undergraduate students, preferably a random sample, and administer the questionnaire. If a random sample could not be obtained, the questionnaire was to be administered to undergraduate classes in which students from any major subject of study, college class level or ethnic group would have an equal chance of participating.

There are some limitations to this study which may have introduced biases in the sample;

(a) the institutions included in the study were part of a project to stimulate alcohol awareness; (b) the institutions were not randomly selected; (c) most of the students were not randomly selected. It is possible that, compared with students in general, the students in this sample had more 11 alcohol awareness."

It is also possible that only certain types of institutions or students agreed to participate in the study and that they and their students may not be representative of colleges or students in this country. However, different types and sizes of colleges in communities of various sizes in four geographic regions of the country were represented.

### The Instrument

An instrument called the Student Alcohol Questionnaire containing 23 questions on drinking related behavior, 36 on knowledge of alcohol and its effects, and 11 on demographic variables was used (41, 42).

### Calculations

The Quantity-Frequency index (Q-F) was used to determine the drinker's classification. This index was originally developed by and Bacon (1) for their national study of university students in the early 1950's; This index calculated from the beverage (beer, wine, spirits) most frequently drank and the amount of the beverage consumed on a typical occasion. A Q-F level was calculated for each student who was placed in one of six categories: abstainer, drinking less than once a year or not at all; infrequent drinker drinking at least once a year but less than once a month; light drinker, drinking at least once a month but not more than 1 to 3 drinks at any one sitting; moderate drinker, drinking at least once a month with no more than 3 to 4 drinks or at least once a week with no more than 1 to 2 drinks, at any one sitting; moderate-heavy drinker, drinking 3 to 4 drinks at least once a week or drinking 5 or more drinks at least once a month; drinker drinking 5 or more drinks more than once a week. Chi square analysis was used for calculating various demographic variables and other drinking patterns.

### Demographic Composition

The sample of 1128 students had the following demographic characteristics; 48.1% were men and 51.9% women; 79.3% Whites, 17.2% Blacks, and 3.7% included Orientals, Spanish Americans, American Indians and other racial groups; 34.6% were freshmen, 22.2% sophomores, 21.5% juniors, 17.5% seniors, and 3.6% were in other levels; 21.9% were from communities of under 5000, 28.6% from communities between 5000 and 50,000, 18.3% from communities between 50,000 and 500,000 and 12.7% from populations of over 500,000; 71.4% reported that their parents belonged to religious organizations which permitted drinking while

14.4% were from Protestant backgrounds which did not allow drinking, and 14.2% indicated "other" backgrounds. Many of the students who reported "other" described themselves as Pentecostal or Southern Baptist or Mormon

### Frequencies and Quantity of Drinking

Most of the students (79%) drank at least once a year and about half (57%) drank at least once a month or more. Of these students, 70% drank beer, 65% drank wine and 75% drank spirits at least once a year, and 57% drank beer, 41% drank wine and 45% drank spirits once a month or more.

As Table 1 shows, about one-third of all students appeared to be abstainers or infrequent drinkers. Heavy drinking was reported by 12% of the sample. When these results are compared to study by Straus and Bacon 25 years ago using similar sampling techniques and the Q-F index level, similar results were found. This group found that approximately 74% of their sample drank once a year. Other studies over the years have also found similar results (7, 8, 9, 11). There appears, then, to be no dramatic increase in the number of university students who are drinking now as compared to past studies.

### Problems Resulting from Drinking.

Approximately 20% of the students reported no problems as the result of drinking. About 29% reported one or two problems, and about 22% reported three or four problems as the result of drinking. It appears that it is common for about one-half of all students to have had up to four problems occur as the result of drinking.

Most students who drink reported "hangovers," nausea and vomiting" and "driving after drinking" at some point in their lives, as the result of drinking (Table 2). Certain types of problem behavior such as "fighting" or "lower grade because of drinking" were likely to have occurred at some point other than the past year, suggesting that the behavior resulted from drinking experimentation at a younger age. Other investigators have also reported some of this same problem behavior (11, 19, 21, 44, 23, 40).

### Sex Differences

Eighty-two per cent of the men and 75% of the women students reported drinking at least once a year. About 20% of the men and 4% of the women were heavy drinkers (see Table 3). The Straus and Bacon study found that approximately the same percentage of males (80%) and fewer percentage of females (1) drank and that about the same percentage of males (21%) and much higher percentage of females (10%) were heavy drinkers (1). There appears to

be a gradual increase of women students drinking, while at the same time a decrease in heavy drinking by women. Because of the changing social roles for women in the United States during the past few years, and because drinking in the past has often been considered to be a "male activity", this increase in drinking among women might reflect this phenomena. It is interesting to note, however, that fewer women students in this sample could be classified as heavy drinkers as compared to the early 1950's. This might reflect the fact that fewer women feel pressure to drink heavily if they are going to drink to "prove" that it is "all right" for them to drink.

### Race Differentials

Analysis showed a significant difference in the QF levels of White and Black students (Table 3). More Whites (84%) than Blacks (60%) drank, and about three times as many Whites as Blacks, appeared to be heavy drinkers. Further analysis indicated that about 22% of the White men and 5% of the Black men were heavy drinkers, and 86% of the White men and 72% of the Black men drank at least once a year; approximately the same percentage of White (5%) and Black (4%) women were heavy drinkers, and 82% of the White women and 52% of the Black women drank at least once a year. Compared with the findings of studies conducted in the past, these results indicate that fewer Black men students are drinking and fewer are heavy drinkers, while the percentage of Black women students who are drinking has increased (1, 19, 44). Perhaps social changes are occurring which should be further investigated.

### University Class Level

Approximately the same percentage of seniors (72%) as compared to freshman (71%) reported drinking at least once a year and approximately the same percentage (12% would be considered to be heavy drinkers. The Straus and Bacon study along with others in the past have, however, found significant differences in drinking patterns between freshmen and senior university students (1, 4, 9, 13). A recent study of teen-age students has revealed that they now have similar patterns of drinking compared to university students and that individuals are now beginning to drink at a younger age (27). This may be a reason why there is little difference between these class levels among this sample of university students as they began initial drinking while still in high school.

### Religion

As others have shown, there was a significant difference in the Q-F level of students from different religious backgrounds. Of Roman Catholic, 19.7% were heavy drinkers compared to 8.9% of Protestants who came from non-drinking religious backgrounds and 6.8% of Jewish students. Only 14.8 % of Catholic students were abstainers compared to twenty percent or higher for the other religious groups.

### Importance of Religion

Significant differences were also found between those students who did and did not consider religion important. Of those to whom religion was important 23.2% abstained from alcohol compared to only 7.9 % to whom religion was not important. Conversely, 29.0 % of those to whom religion was not important were heavy drinkers compared to 16.3% of those who considered religion important.

### DISCUSSION AND CONCLUSION

Social changes during the past 25 years appear to have made it more acceptable for female college students to drink resulting in more women students drinking now as compared to the classic Straus and Bacon studies 25 years ago. A higher percentage of Black women students are drinking but fewer Black male students appear to be drinking compared to past studies. There also appears to be fewer differences between drinking patterns of freshmen and senior university students in this sample. As has also been found previously Roman Catholics and those who do not considered religion important tend to be the heaviest drinkers.

On the whole there appears to have been no dramatic increase in the change of drinking patterns and the problems resulting from drinking over the past years but rather slow changes probably reflecting the change of women's roles and other social and legal conditions in the United States of America.

TABLE 1. Percentages of 1128 Students exhibiting Q-F Levels of Absolute Alcohol

Absolute Alcohol	
Abstainers	20.6
Infrequent drinkers	10.8
Light drinkers	11.8
Moderate drinkers	23.8
Moderate-heavy drinkers	21.5
Heavy drinkers	11.5

TABLE 2. Percentage of the Students who Drink at Least Once a Year (N=883) Reporting Alcohol-Related Problems at Least Once in a Lifetime (41)

	Lifetime
Hangover	73.7
Nausea and vomiting	69.7
Driving after drinking	68.4
Driving after excessive drinking	50.8
Driving while drinking	45.7
Missing class because of hangover	24.2
Coming to class after drinking	21.9
Fighting with someone after drinking	19.4
Being criticized by date because of drinking	18.9
Missing class after drinking	18.6
Damaging university property, setting off false fire alarm, because of drinking	17.6
Knowing of problem with drinking	16.2
Having trouble with the law because of drinking	9.2
Receiving a lower grade because of drinking	8.7
Having trouble with school administration because of drinking	3.8
Being arrested for driving while intoxicated	2.5
Losing job because of drinking	0.9



TABLE 3. Relationship of Quantity-Frequency Level of Alcohol Consumption in Regards to Sex, Race, College Class, Religion, and importance of religion in percent.

	N	Q-F Level		
		Abstain	Infrequent to Moderate/Heavy	Heavy
<b>Sex++</b>				
Men	508	16.5	63.4	20.1
Women	610	23.9	71.8	4.3
<b>Race++</b>				
Whites	887	16.0	71.4	12.6
Blacks	194	39.7	55.7	4.6
<b>College Class</b>				
Freshmen	380	20.8	67.1	12.1
Sophomores	250	25.2	62.8	12.0
Juniors	246	19.1	70.3	10.6
Seniors	199	15.6	72.3	12.1
<b>Religious Background*</b>				
Roman Cath.	317	14.8	65.5	19.7
Jewish	79	21.5	71.7	6.8
Protestant (drinking)	409	20.0	67.9	12.1
Protestant (non-drinking)	160	34.4	56.7	8.9
Other	159	27.7	58.1	14.2
<b>Importance of religion*</b>				
Very	451	23.2	60.5	16.3
Not	677	7.9	63.1	29.0

\*P < .05

++p < .001

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