

# **ETHNIC AND SEXUAL PATTERNS OF ALCOHOL USE: ANGLO AND MEXICAN AMERICAN COLLEGE STUDENTS**

**Robert T. Trotter, II, Ph.D.**

## **ABSTRACT**

A survey of alcohol use patterns was conducted among Mexican American and Anglo American college students. Significant differences were found in relation to whether or not students drank, with whom they drank, how frequently, where, and what they drank compared to the students' ethnicity and their sex. Ethnicity had the strongest influence on whether or not students drank, what they drank and how frequently they drank.

A survey of alcohol use was conducted at Pan American University, a four-year state supported institution located in the Lower Rio Grande Valley of Texas. The object of the survey was to identify social factors which create differences in the consumption of alcoholic beverages among Anglo American and Mexican American college students.

Previous studies on alcohol use amongst college students were of some use in providing a baseline for comparison of Pan American University student behavior, however, certain weaknesses were apparent in the literature that made such comparisons less complete than would be optimally desirable. Straus and Bacon's (1953) survey of 17,000 college students provides one of the most commonly cited sources of baseline data for subsequent studies on alcohol use amongst college students. However, their report ignores the importance of ethnicity as a variable in determining drinking behavior, specifically the drinking behavior of Spanish surnamed students, thereby reducing the utility of the work as a comparative baseline for this study. The Straus and Bacon data has subsequently been supplanted by more recent publications such as Hanson, 1974; Kuder and Madsen, 1976; Kraft, 1976; Donovan, 1977; and Kopplin et al., 1977. Most of the study groups associated with these articles were either relatively homogeneous, the question of ethnicity was ignored, or the ethnic groups differed from the ones reported here. One of the few pertinent reports commenting on ethnic differences in drinking among college students is found in Marden and Kolodner (1977). Referring to Spanish Americans in particular, the authors state that this group has alcohol use patterns that are similar to whites, although their levels of consumption may be somewhat less (Marden and Kolodner, 1977:21). The suggested lower levels of alcohol consumption among Mexican Americans are supported by the evidence detailed in this article, however, the

similarity in usage patterns is not borne out by the data, nor by another analysis of the literature on drinking in Spanish-speaking populations (see Trotter and Chavira, 1977).

In contrast to the dearth of information on ethnic differentials in drinking behavior, recent studies of drinking behavior among college students have been giving increasingly detailed information on the potential differentials in drinking behavior reported by male and female students. Keller's study (1974) is of special interest in this area, since it is based on a national sample. Keller's report shows an increase in the proportion of students drinking at each age level for both males and females. It also documents a decrease in the differential between the proportions of male and female drinkers over the past decade. The author's study, without comparable longitudinal data to work with, cannot refute or support these trends among Pan American University students. However, the evidence presented in the following sections suggest that if the latter trend, a reduction in sexual drinking differentials, is being followed, it is primarily among the Anglo American students not the Mexican American students. And it is being followed to a lesser degree for the Anglos than for the nation as a whole. Specific comparisons with previous studies can be found in the data sections of this report.

#### RESEARCH SITE AND STUDENT POPULATION CHARACTERISTICS

Pan American draws the most of its student population (enrollment approximately 9,000) from four South Texas counties: Cameron, Starr, Hidalgo, and Willacy. This area, called "the Valley," is adjacent to the United States-Mexico border, extending from the mouth of the Rio Grande near Brownsville, up river to beyond Roma, Texas, approximately 125 miles away.

The Valley has a population slightly less than one-half million people on the United States side and somewhat more than that on the Mexican side. It is a combined rural-urban area; containing the two poorest Standard Metropolitan Statistical Areas in the U.S. (1970 census). Two major Mexican border towns, Matamoros and Reynosa, lie within the Valley area and are intricately tied, both economically and socially to the Valley area. Nevertheless, the area is both isolated and insular due to the lack of proximity of any other sizeable population centers in either the United States or Mexico.

The 1970 census data indicates an ethnic composition of the area of approximately 78 percent Spanish surnamed, 22 percent Anglo, and

less than one-half of one percent Black. The medium incomes, both per capita and family, fall well below those of Texas and the United States as a whole. The area is the home base of a significant proportion of the migrant workers in the United States; approximately 90,000 people in the four-county area. The demographic characteristics of Pan American University students (detailed below) closely parallel the demography of the surrounding area. Over 95 percent of the student population comes from the Valley or surrounding areas.

The total enrollment of Pan American University in the Spring semester of 1977 was 8,970 students. Of these students, 73.7 percent were Mexican American, 21.8 percent Anglo, and less than 4.5 percent Black, Oriental, foreign born, American Indian, and other. The sexual composition of the campus as a whole was 47.7 percent male and 52.3 percent female. Thus, the ethnic and socioeconomic characteristics of the university population presents a unique opportunity for research into the differences and similarities produced in alcohol use patterns by the variables of culture, ethnicity, sex, income, religion, and other key social variables.

#### METHODOLOGY

The subjects were chosen by identifying all university class sections of the Spring semester of 1977 as individual student clusters. A stratified random sample of these clusters was drawn to assure an equitable distribution of students in the university according to ethnicity, sex, and enrollment classification (frosh, soph., etc.). A pre-tested research instrument <sup>1</sup> was administered to 538 respondents. This included 402 (74.7 percent) Mexican American, 116 (21.6 percent) Anglo and 20 (3.7 percent) Black, Oriental, American Indian, and others. The sample population had a sexual composition of 45.1 percent male and 54.9 percent female. The composition of the sample by scholastic classification was 25.7 percent freshman, 16.7 percent sophomore, 25.0 percent junior, 24.4 percent senior, and 8.2 percent graduate and other students. Tests of significance applied to this data indicated that there was no significant variation between the sample population and the university in terms of ethnicity and sex. The sample is overrepresentative of undergraduate students compared to the total population. This deviation from that expected was considered acceptable because of the primary focus on the undergraduate population for this project.

The paucity of Blacks, Orientals, American Indians, and other ethnic groups in the sample population caused their removal from subsequent calculations. Thus, the total utilized sample consisted of 518 respond-

ents (402 Mexican Americans and 116 Anglo Americans).

Out of 112 total variables in the research instrument, only those dealing with drinking behavior (what, where, when, how often, and with whom people drink) are reported here. Subsequent reports will focus on collected information detailing alcohol abuse and knowledge about drug alcohol in this population.

### FINDINGS

There is considerable disagreement among previous studies as to how many students drink. This disagreement results partially from differences in methodologies (e.g., self reports as opposed to observations, logs, etc.) and partially from changes in patterns of drinking behavior produced by time or by regional differences due to geographical location. Some of the confusion is also produced by differences in the surveyed populations, college students in some cases, adolescents in others, and young adults in yet others. For adolescents as a whole, the figures through time range from 22.2 percent drinkers in the sample population in 1941 to 86.1 percent drinkers in 1974 (males only, Marden and Kolodner, 1977, see Table 1). Hanson's study of 37 colleges in 1970-71 and restudy of 17 in 1975 indicated 83.53 percent and 83.49 percent drinkers respectively (Hanson 1977:18). The highest percentage of drinkers was reported by the university 50 plus 12 project (HEW

TABLE 1  
Comparison of Drinkers and Non-Drinkers  
by Ethnicity and Sex

	Males			Females		
	Anglos	Mexican American	Total Males	Anglos	Mexican American	Total Females
Don't Drink	6 (10.9%)	13 (7.3%)	19 (8.2%)	12 (19.7%)	81 (36.8%)	93 (33.1%)
Do Drink	49 (89.1%)	164 (92.7%)	213 (91.8%)	49 (80.3%)	139 (63.2%)	188 (66.9%)

N=513

1976:3). Most schools surveyed ranged from 87 to 93 percent drinkers, with the state supported universities tending to have higher proportion of drinkers than private and parochial universities.

#### *Incidence of Drinkers at Pan American University*

The survey respondents were asked to indicate whether they did or did not drink. The results of the question were summarized in Table 1, broken down by sex and by the ethnicity of the respondent. The total proportion of drinkers to non-drinkers is 78.2 percent to 21.8 percent. These responses indicate a level of drinking that is lower than most schools in the 50 plus 12 group. This differential is primarily due to the significantly lower incidence of drinking among the Mexican American females at the university.

#### *Prevalence of Drinkers Compared by Sex and Ethnicity*

Comparisons were made of the Pan American University student drinkers and non-drinkers using sex and ethnicity as independent variables for cross-tabulation calculations.<sup>2</sup> The ethnic self-identification variable, by itself, had no significant effect on predicting whether or not a student drinks. When controlling for sex, no significant difference exists between the responses for Anglo and Mexican American males, however, there is a small difference among the females ( $X^2 = 5.59$  with 1 degree of freedom,  $P = .018$ ,  $Eta = .150$ ). Using Eta squared<sup>3</sup> as an approximation, this variable would explain no more than 2.25 percent of the variance for this calculation. On the other hand, sexual identification did show a fairly strong relationship to drinking or non-drinking ( $X^2 = 44.744$  with 1 degree of freedom,  $P = .0000$ ,  $Eta = .300$ ). If ethnic identity is controlled, the difference between males and females virtually disappears for the Anglo group, but the differential remains significant for the Mexican American males and females ( $X^2 = 45.53$  with 1 degree of freedom,  $P = .000$ ,  $Eta = .344$ ).

These results are interesting because nearly all of the early studies of student drinking identified a differential in the percentage of male and female drinkers. Straus and Bacon (1953) recorded a 16 percent differential between the sexes. However, subsequent studies have indicated a steady reduction in that differential through time. Hanson (1972), recorded only a 5 percent differential, the San Mateo study (1974), a 2.5 percent differential, and Hanson (1977) observed no differential in the prevalence of drinkers between the sexes. The Pan American University sample indicates an overall differential between the sexes of 24.9 percent, which can be broken down into an 8.8 percent differential within the Anglo group, and a 29.2 percent differential between the sexes in the Mexican American student group.

These differentials in percentages of drinkers are higher than the differentials currently being recorded for the United States as a whole, or in other regions of the country. Differentials between the sexes (drinking versus non-drinking) have been variously explained in terms of ambivalence (Myerson, 1940), differentials in power such as receiving paid wages (Knupfer et al., 1963), in terms of symbolic behavior (Preston, 1964), drinking as male prerogative (Winham and Aldridge, 1965), and as acceptance of existing or dominant social norms (Clark, 1967). To this list should be added cultural and regional differences in socialization, as well as differential values and attitudes relating to sex roles. Ethnographic research currently being conducted in South Texas indicates that the use of alcohol by women is constrained by group pressure revolving around the twin concepts of virtue and respect. An individual, particularly a female, can indicate a lack of virtue through the inappropriate use of alcohol in the community. Inappropriate use of alcohol by either sex, also demonstrates lack of respect for family and family members, especially parents. Both of these conditions act to impose social controls on drinking in the small, tightly-knit communities and in the extended family systems that predominate in the Valley.

The condition of women, in relation to drinking behavior, is especially crucial to the use of culturally shaped social roles as an explanation of behavior, in this context. A significant number of the Mexican American women in the Valley exist in what could be considered a "protective environment."<sup>4</sup> The "protection," in this case, refers not only to strong negative sanctions against drinking, but also to restrictions on dating, on freedom of movement without proper chaperonage, and restrictions on other behavior that would facilitate the individual's access to places where drinking behavior might occur. Thus, it will be demonstrated throughout this paper that Mexican American female students tend to be the most conservative group at Pan American University in relation to their drinking behavior. Anglo and Mexican American males appear to be very similar in their behavior, with several notable exceptions. Anglo females often appear to take an intermediary position between the males and the Mexican American females.

### *Frequency in Drinking*

Students who indicated that they did drink were asked to report their frequency of drinking. The data on the options students were given is reported in Table 2. These figures show lower rates of drinking episodes for Mexican Americans as a whole as compared with Anglos, and for the female's sample compared to the males. Ethnic identi-

cation produced a small effect on predicting the frequency with which people in the sample reported drinking ( $X^2 = 12.712$  with 5 degrees of freedom,  $P = .026$ ,  $\text{Eta} = .140$ ). Controlling for sex eliminated any significant differences in frequencies of drinking among the males, but establishes significant differences between the females ( $X^2 = 16.94$  with 5 degrees of freedom,  $P = .0046$ ,  $\text{Eta} = .284$ ). In this case, ethnicity would explain up to 6 percent of the variance in this factor within the female group using Eta squared as the measure.

TABLE 2  
SELF REPORTING DRINKING FREQUENCIES

	At least once a day	Less often than once a day, but more than once a week	Once a week	Less often than once a wk., but more than once a month	Once a month	Less often than once a month	Total
Anglo Male	1 (2.0%)	18 (36.8%)	6 (12.2%)	14 (28.6%)	5 (10.2%)	5 (10.2%)	49 (100%)
Mexican American Male	7 (4.3%)	41 (25.2%)	27 (16.6%)	38 (23.3%)	16 (9.8%)	34 (20.9%)	163 (100%)
Total Males	8 (3.8%)	59 (27.8%)	33 (15.6%)	52 (24.5%)	21 (9.9%)	39 (18.4%)	212 (100%)
Anglo Female	1 (2.0%)	9 (18.4%)	3 (6.1%)	11 (22.5%)	8 (16.3%)	17 (34.7%)	49 (100%)
Mexican American Female	0 (0.0%)	6 (4.4%)	7 (5.2%)	20 (14.8%)	21 (15.6%)	81 (60.0%)	135 (100%)
Total Females	1 (0.5%)	15 (8.2%)	10 (5.4%)	31 (16.8%)	29 (15.8%)	98 (53.3%)	194 (100%)
Total Anglo Group	2 (2.0%)	27 (27.6%)	9 (9.2%)	25 (25.5%)	13 (13.3%)	22 (22.4%)	98 (100%)
Total Mexican American Group	7 (2.4%)	47 (15.8%)	34 (11.4%)	58 (19.4%)	37 (12.4%)	115 (38.6%)	298 (100%)
Total PAU	9 (2.3%)	74 (18.7%)	43 (10.9%)	73 (18.4%)	50 (12.6%)	137 (34.6%)	396 (100%)

As in the preceding section, the sex variable was significant in allowing predictions of drinking behavior. When the responses of students reported frequency of drinking were cross-tabulated by sex, the males differed significantly from the females ( $X^2 = 74.30$  with 5 degrees of freedom,  $P = .0000$ ,  $\text{Eta} = .425$ ). Controlling for ethnicity demonstrated that the Anglo students differ less in their responses to this

question than do the Mexican American students but the association between these variables remains significantly high in both cases, as does the percent of variance explained (approximately 9 percent for the Anglo and 22 percent of variance explained (approximately 9 percent for the Anglo and 22 percent for the Mexican American students). In all cases the Mexican American females demonstrate a more conservative response to this question than the other three groups; probably for the same factors that affect drinking versus non-drinking behavior. The concept of the "protective environment" for Mexican American females in the Valley would certainly limit the number of drinking episodes in which students could engage. The fact that Pan American University is primarily a commuter type of campus would allow this system to be maintained during the college years. However, it is clear that this protective environment is not extended to all of the Mexican American female students as demonstrated by the percentage of Mexican American female students who drink at least once a month (24.4 percent).

National or regional data that is directly comparable to the above results is not available, however, the information supplied by Kraft (1976) and Fillmore (1974) suggest that the figures for both sexes and the two groups from Pan American University are lower in terms of the frequency of self reported drinking than those of other samples from the United States.

### *Drinking Preferences*

Hanson (1977:18) notes that wine has replaced liquor as the alcoholic beverage consumed by the largest number of students on college campuses, with beer being the least preferred beverage. The Pan American sample does not replicate these findings. On the contrary, it shows significant differences from the Hanson study according to the type of beverage that Pan American students respond they most frequently consume (see Table 3).

The effect of the ethnicity variable on the type of beverage a student most often drinks is slight ( $X^2=7.70$  with 2 degrees of freedom,  $P=.021$ , Cramer's  $V=.141$ ) and controlling for the sex of the respondent produces little change for the comparison of Anglo and Mexican American males ( $X^2=6.965$  with 2 degrees of freedom,  $P=.030$ , Cramer's  $V=.184$ ). However, the data indicate a much higher level of significance for the comparison of the two ethnic groups among the females ( $X^2=10.40$ , 2 degrees of freedom,  $P=.006$ , Cramer's  $V=.240$ ).

A cross-tabulation of the relationship between sexual identification and the type of beverage most frequently reported as consumed shows a significant difference in the responses of male and female students

( $X^2 = 137.973$  with 2 degrees of freedom,  $P = .0000$ , Cramer's  $V = .600$ ). This differential in responses continues to be significant when controlling for ethnicity. Mexican American males and females differ somewhat more in their responses ( $X^2 = 128.877$ , 2 degrees of freedom,  $P = .0000$ , Cramer's  $V = .667$ ) than do Anglo males and females ( $X^2 = 16.139$ , 2 degrees of freedom,  $P = .0003$ , Cramer's  $V = .410$ ).

This difference in the responses of males and females toward preferences in alcoholic beverage consumption may be related to several conditions; such as overall sex role differentiation in the community (beer is viewed as a masculine drink), the establishment of primary scenes for drinking in a social context through cultural paradigms (such as drinking in all male versus mixed groups), and the effects of social conditions on drinking preferences (including the cost of alcoholic beverages). Some of these conditions are discussed in general terms by Pittman and Snyder (1962) and by Everett et al. (1976).

TABLE 3  
Type of Beverage Respondent Most Often Drinks  
By Sex and Ethnicity

	Males						Females					
	Anglo		Mexican American		Total		Anglo		Mexican American		Total	
	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
Beer	1	61.2	1	79.5	1	75.1	3	23.4	3	12.7	3	15.5
Wine	3	8.2	3	3.2	3	4.4	2	31.9	2	16.4	2	20.4
Liquor	2	30.6	2	17.3	2	20.5	1	44.7	1	70.9	1	64.1

N=181

### *Drinking Scenes*

It can be assumed that cultural differences in drinking behavior, based on different values toward alcohol use, will be apparent in relation to the social scenes where alcoholic beverages are consumed. The values of a particular culture will tend to shape the type or types of beverages a person will drink, with whom he or she will drink, and where the drinking will take place (see Bacon, 1976; Field, 1962; Lemant, 1956; Pittman and Snyder, 1963; and Everett et al., 1976).

The students in the Pan American University sample were asked where they most frequently drank (for specific locations, see Table 4). This question is the first area of drinking behavior in which ethnicity appears to be a more important factor than does the sex of the respondent. Differences are apparent between the Anglo and the Mexican American respondents in relation to where students say they most frequently drink ( $X^2 = 15.846$ , 6 degrees of freedom,  $P = .0145$ , Cramer's  $V = .207$ ). Controlling for sex, the responses indicate no significant difference between the males, but differences between the Anglo and Mexican American female respondents persist ( $X^2 = 17.38$  with 5 degrees of freedom,  $P = .0038$ , Cramer's  $V = .323$ ).

TABLE 4  
Comparison of Places Respondents Most Frequently Drink by Sex and Ethnicity

Drinking Locations	Males			Females			Combined	
	Anglo	Mexican American	Total Males	Anglo	Mexican American	Total Females	Total Anglo	Total Mexican American
	Rank %	Rank %	Rank %	Rank %	Rank %	Rank %	Rank %	Rank %
1. Parents' Home	5 4.2	5 5.9	5 5.5	6 4.7	4 6.5	6 6.0	6 4.4	5 6.1
2. Own Home	2 22.9	2 17.1	2 18.5	2 20.9	2 12.1	2 14.4	2 22.0	2 15.1
3. Friends' Home	4 6.3	3 17.1	3 14.5	3 16.3	3 8.9	3 10.8	4 11.0	3 13.3
4. Dorm	6 4.2	7 0.0	7 1.0	7 0.0	7 0.0	7 0.0	7 2.2	7 0.0
5. Nightclub or bar	1 49.9	1 47.4	1 48.0	1 30.1	1 62.9	1 54.4	1 40.6	1 54.0
6. Restaurant	7 2.1	6 1.3	6 1.5	4 14.0	6 4.0	5 6.6	5 7.7	6 2.9
7. Other (specify)	3 10.4	4 11.2	4 11.0	5 14.0	5 5.6	4 7.8	3 12.1	4 8.6
	N=48	N=152	N=200	N=43	N=124	N=167	N=91	N=276

None of the cross-tabulations of the places respondents identified as where they most frequently drank showed any significant differences when comparing the sexes, even when controlling for ethnicity. The males showed a general similarity of behavior, regardless of ethnic group. Their two most common choices of drinking locations were nightclubs and bars (see Table 4) and own home. The next significant category was the "other" category in which respondents specified such places as the side of the road, at the drive-in, in orchards, in fields, cruising. The males stated a low frequency for drinking in restaurants, in dorms, and at their parents' home. One of the interesting findings was that the Mexican American males were nearly three times as likely to drink at friends' houses than their Anglo counterparts (17.1 percent Mexican American, 6.3 Anglo). It is probable that the value

of showing respect for parents is at least partially responsible for this finding for the Mexican American males. Drinking in front of parents, especially if the young man is unmarried, is sometimes taken as a sign of disrespect. Therefore, there would be fewer social pressures on drinking at friends' houses, possibly even making it a preferred location. In addition, there is a strong positive sanction for drinking with members of the same sex (see following section), which may act as a "pull" factor for drinking at friends' homes, complementing the "push" factor of not drinking in the parents' home.

The two groups of female respondents indicated distinct differences in their responses, compared to the males and to each other. As with the males, the most common response for drinking locations was night-clubs or bars, however, over twice the percentage of Mexican American females indicated this choice as did Anglo females. The second most frequent response, again similar to the males, was the students' own home, but here nearly twice as many Anglo females as Mexican American females indicated this response. Two other areas showed wide differentials among the female respondents, one was drinking in friends' homes, the other was drinking in restaurants.

Significant differences in responses were found in comparing the two ethnic groups' responses for several specified drinking locations. These included parents' home ( $X^2=15.22$  with 3 degrees of freedom,  $P=.0016$ , Cramer's  $V=.198$ ), at friends' homes ( $X^2=12.66$  with 3 degrees of freedom,  $P=.0054$ , Cramer's  $V=.181$ ), and in restaurants ( $X^2=42.68$  with 3 degrees of freedom,  $P=.00000$ , Cramer's  $V=.335$ ). Mexican Americans were nearly twice as likely *never* to drink in their parents' home as were Anglos (50.0 percent compared with 27.4 percent), and showed lower percentages of responses in each of the other three categories. The responses to the subjects' frequency of drinking at friends' homes was more complex. In that case, controlling for sex indicated that the males of both ethnic groups made similar responses (no significant differences) with only 10.9 percent of the Anglos and 17.2 percent of the Mexican American drinkers claiming *never* to drink at a friend's house. The females' responses were significantly different from one another ( $X^2=20.25$  with 3 degrees of freedom,  $P=.0002$ , Cramer's  $V=.335$ ). Only 18.4 percent of the Anglo females responded that they never drink at friends' homes, while 44.7 percent of the Mexican American females responded that they never did so.

#### *Frequency of Drinking in Specified Locations*

In addition to asking the respondent which place they most frequently drank, each subject was given the opportunity to state the frequency of drinking for each of seven drinking sites by responding to the state-

ment, "Please indicate the frequency with which you drink at the following places." Respondents' choices were 1) frequently, 2) occasionally, 3) seldom, and 4) never.

There is a similarity in the response to drinking in the dorms. Only two individuals, both Anglo males, claimed the dorm as their most frequent drinking site, out of a total of 200 respondents on this question. This condition is at least in part created by enforced university regulations against drinking in the dorms.

The response to drinking in restaurants was significantly different in the comparison of the ethnic groups, even when controlling for sex. Mexican Americans were approximately four times as likely *never* to drink in restaurants as were Anglos (40.1 percent compared with 9.6 percent for the total groups, 40.6 percent Mexican American males compared with 11.1 percent Anglo males, 40.0 percent Mexican American females compared to 8.2 percent for the Anglo females). These differences in drinking in restaurants may in part be due to the income differentials between Anglos and Mexican Americans in the Valley. Both the census data (1970) and the parents' income reported by the students indicate significantly higher earnings among the Anglo population than the Mexican American population. If cost is a consideration, both eating and drinking in restaurants would be expected less frequently for the Mexican American group.

The responses for the frequency of drinking at two other locations indicated differences between the two ethnic groups when controlling for sex; drinking in the students' own home and drinking in other specified locations. In the first case, the males show no significant differences in their response, but the females do ( $X^2 = 13.89$  with 3 degrees of freedom,  $P = .0031$ , Cramer's  $V = .278$ ). The Mexican American females indicate by their responses that they are far less likely than any of the other three groups to drink in their own home (44.6 percent of the Mexican American females responded that they never drink in their own home, compared with 29.0 percent of the Anglo females, 36 percent of the Mexican American males, and 26.7 percent of the Anglo males). In the second case, drinking in other specified locations, the females were much less likely to indicate another specific response. Even when they did so, they were less likely to drink there than the males were. These responses support the earlier discussion of the effects of the concept of respect and modesty on drinking behavior in these groups, as well as the concept of the Mexican American females' "protective environment."

Equally interesting is the similarity of responses of all of the students in regard to drinking in dorms and in regard to drinking in nightclubs and bars. Dorms are apparently not considered appropriate

drinking locations for this group of students. Responses to dorm drinking indicated that 90.8 percent of the Mexican American students and 82.8 percent of the Anglo students *never* drank in dorms. The group which showed the strongest tendency to see the dorm as an appropriate drinking site were the Anglo males (24.4 percent indicated some tendency to drink in the dorms, while only 11.8 percent of the Mexican American males, 9.5 percent of the Anglo females, and 6.5 percent of the Mexican American females showed any tendency at all to drink in dorms). However, the reliability of this response is somewhat questionable, since students can be expelled for admitting to drinking in the dorms. The frequency of drinking in nightclubs and bars was the opposite of that in dorms. Only 7.2 percent of the Anglo students and 11.9 percent of the Mexican American students claimed to never drink in nightclubs and bars. While the females of both groups responded that they drank in these two locations slightly less frequently than did the males, no significant differences among the groups were noted, even while controlling for sex.

### *Drinking Companions*

An evaluation of the individuals with whom the respondent normally drank was computed. Respondents had 11 potential responses available to indicate the group or individual with whom the respondent most frequently drank. This produced too many potential zero cells to allow tests of significance to be computed, however, the ordering of categories is of interest (see Table 5).

The respondents differ most in their rankings in regard to drinking in large mixed groups, which Anglos do far more frequently than do Mexican Americans, in drinking in large groups of the same sex which Mexican American males do most frequently more often than any other group, and in drinking in small groups of the same sex, which Anglo females do less often than do the other three groups.

Cross-tabulations were performed comparing the sex of the respondent with their response as to which of the specified groups with whom they most frequently drank. This produced a set of rankings different from the comparison by ethnic group (see Table 4), but most closely resembling the responses of the Mexican American students, due to their preponderance in the sample.

When the results of this computation are compared with those of the previous section, it appears that Pan American University male and female students tend to drink most frequently in social settings and with companions whose appropriateness are dictated by clearly defined social norms. Females tend to drink in those settings that would favor their consumption of mixed drinks, such as nightclubs and restaurants,

and with individuals, such as dates, who would tend to offer them mixed drinks. For example, a total of 63.9 percent of the females reported drinking most frequently in situations where the group could be considered a mixed sex group with primary relationships (one person of the opposite sex, small mixed group, and family). The total for these same three groups for the males was only 29.5 percent frequency. On the other hand, males reported most frequently drinking with primary groups of the same sex (53.7 percent of the male respondents, compared with 21.3 percent of the female respondents). One possibility, since females report drinking less frequently than males as a whole, is that female drinking patterns are strongly associated with (possibly even partially dependent upon) relationships with the opposite sex, while those of males are more closely associated with those of the same sex. Males tend to drink in social settings (bars, friends' homes), and with individuals (male friends) that would encourage the consumption of beer because of its cost and its association with masculine images. Both of these trends are cultural and can be readily identified (along with other masculine-feminine role distinctions) in current television commercials depicting beer and wine consumption that are the constant companions of Saturday afternoon sports programming, late night television, and some prime time programming.

#### *Frequency of Drinking with Specific Groups*

Each of the respondents was asked to judge how frequently (frequently, occasionally, seldom, never) they drank with each of the 11 possible responses listed in Table 5. The responses were cross-tabulated with ethnicity of the respondent, controlling for sex, sex of the respondent, and sex of the respondent controlling for ethnicity.

Several of the computations showed no significant differences between the responses of the ethnic groups even when controlling for sex. These included the responses to drinking alone, drinking with one person of the same sex, one person of the opposite sex, drinking with a small group of the same sex, drinking with a large group of the same sex, drinking with a large mixed group, drinking with church groups, and drinking with special groups or clubs.

The subjects' responses to one of the questions (frequency of drinking in a small group of the opposite sex) indicated no significant differences when compared to the ethnicity of the respondent, except when controlling for sex. The responses of the combined ethnic groups were not significantly different, nor were the responses of the females. However, the Anglo and Mexican American males' responses differed significantly ( $X^2 = 13.857$  with 3 degrees of freedom,  $P = .003$ , Cramer's  $V = .258$ ). These results are not easily explained from the available data.

TABLE 5

 RANKINGS OF FREQUENCY WITH WHICH STUDENTS  
 REPORT DRINKING IN SPECIFIED GROUPS, ACCORDING TO ETHNIC GROUP AND SEX

Response	Anglo Males		Mexican American Males		Total Male		Anglo Females		Mexican American Females		Total Female		Total Anglo		Total Mexican American	
	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
Small Mixed Group	1	22.9	3	10.3	3	13.3	2	22.2	1	25.8	2	24.9	2	22.6	2	17.3
1 Person Same Sex	2	22.9	2	20.0	2	20.7	5	8.9	5	8.1	5	8.3	3	16.1	4	14.6
Small Group Same Sex	3	16.7	1	38.1	1	33.0	6	6.7	3	15.3	4	13.0	5	11.8	1	28.1
1 Person Opposite Sex	4	14.6	4	9.7	4	10.8	1	33.3	2	22.6	1	25.4	1	23.7	3	15.7
Large Mixed Group	5	10.4	10	0.6	9	3.0	4	8.9	8	4.0	7	5.3	6	9.7	10	2.1
Family	6	6.3	6	5.2	5	5.4	3	17.8	4	12.1	3	13.6	4	11.8	5	8.2
Alone	7	2.1	7	5.2	6	4.4	9	0.0	9	1.6	9	1.2	8	1.1	8	3.6
Club or Special Group	8	2.1	8	4.5	8	3.9	10	0.0	10	1.6	10	1.2	9	1.1	9	3.2
Small Group Opposite Sex	9	2.1	9	1.3	10	1.5	7	2.2	6	7.3	6	5.9	7	2.2	6	3.9
Large Group Same Sex	10	0.0	5	5.2	7	3.9	8	0.0	7	1.6	8	1.2	10	0.0	7	3.2
Church Group	11	0.0	11	0.0	11	0.0	11	0.0	11	0.0	11	0.0	11	0.0	11	0.0
	N=48		N=155		N=203		N=45		N=124		N=169		N=93		N=179	

More women than men *never* drink with a small group of the other sex (35.3 percent compared with 20.7 percent) and more Mexican American males (23.1 percent) than Anglo males (12.5 percent) *never* drink with a small group of the opposite sex, yet this behavior is reversed at the other end of the spectrum where 7 percent of the Mexican American males reported frequently drinking with a small group of the opposite sex while 0.0 percent of the Anglo males indicated that response. This is clearly an area for further research, since none of the available data appears pertinent to explaining these findings.

The subjects' responses to two questions indicates significant differences between the ethnic groups which tend to disappear for either the males or females when controlling for the sex of the respondent. Responses to how often the subject drinks with family were significantly different ( $X^2 = 14.3$  with 3 degrees of freedom,  $P = .0025$ , Cramer's  $V = .190$ ), but not as strong an association of the variables as many other computations. Controlling for sex in analyzing this question demonstrated significant differences in responses between the Anglo and the Mexican American females ( $X^2 = 25.30$  with 3 degrees of freedom,  $P = .0000$ , Cramer's  $V = .369$ ). In the latter case, more than six times the percentage of Mexican American females never drank with their families than did the Anglo females (87.1 percent compared with 12.9 percent). This response again supports the differentiation in sex roles

relating to drinking between the two ethnic groups. The second question (how often the respondent drinks with small mixed groups) showed a low level of significance between the two ethnic groups ( $X^2 = 12.13$  with 3 degrees of freedom,  $P = .0069$ , Cramer's  $V = .175$ ), but that significance disappears entirely when controlling for sex.

Cross-tabulations were carried out comparing the same set of 11 responses to the respondents' sex, both with and without controlling for ethnicity. Several of the responses showed no significant differences between the two sexes, even when controlling for ethnicity. These responses included drinking with the family, drinking with one person of the opposite sex, drinking with a small mixed group, drinking with a large mixed group, and drinking with church groups. This would indicate that there are no significant differences in socialization between males and females in terms of the frequency that drinking is condoned within the context of the indicated groups.

One comparison was marginally significant ( $X^2 = 10.578$  with 3 degrees of freedom,  $P = .014$ , Cramer's  $V = .164$ ), the frequency with which the two sexes drank with a small group of the opposite sex. Females responded that they were less likely to drink with this type of group than males. Controlling for ethnicity produced very little change in the significance and association levels of the groups. No data are currently available to explain these differences.

Several calculations showed significant differences in the responses of males and females that were generally maintained when controlling for ethnicity. One of these responses was the difference in the frequency with which the subject drinks with one person of the same sex. Of the females, 29.9 percent responded that they *never* drank with one person of the same sex, while only 3.8 percent of the males responded that they *never* did so. The level of significance for this differentiation was high ( $X^2 = 82.239$  with 3 degrees of freedom,  $P = .0000$ , Cramer's  $V = .490$ ), the association between the variables was high as well. Controlling for ethnicity produced no change, the significance levels and the levels of association remained high for both the Anglo and the Mexican American groups. A result similar to the previous question was computed for the responses to drinking in a small group of the same sex. A significant difference ( $X^2 = 81.35$  with 3 degrees of freedom,  $P = .0000$ , Cramer's  $V = .455$ ) was found between male and female respondents; females were far more likely to respond that they *never* drink with a small group of the same sex (28.8 percent) than were males (2.4 percent). Controlling for ethnicity did not change the results; significance and degree of association remained high. These results are not unexpected since there is a very clear social tradition for the males in the Valley to have exclusively male weekend beer-and-

barbecue parties, called *pachangas* in Spanish, beer busts or barbecues in English. There is not corresponding social tradition for the females in the Valley.

In the case of four of the responses, significant differences were found between the responses of males and females, which carried over to one but not both of the ethnic groups when controlling for ethnicity. One case was the response to drinking with a large group of the same sex. Among the Anglos, the degree of differentiation between the male and female respondents was only marginally significant, much less differentiation than that between the sexes among the Mexican American respondents. Similar results hold for responses to the frequency that subjects drink with special groups and clubs. Finally, the two sexes are differentiated in their frequency of drinking in clubs or special groups ( $X^2 = 18.695$  with 3 degrees of freedom,  $P = .0003$ , Cramer's  $V = .218$ ). Controlling for ethnicity again eliminated the significant differences for the Anglo group but not for the Mexican American group. Mexican American males drink with clubs or special groups approximately one and one-half times more frequently than do Mexican American females.

Finally, in the students' responses to the frequency that they drink alone, a total of 71.5 percent of all females stated they never drank alone while 31.6 percent of all males stated they never drank alone. The two groups were significantly different in their responses to this question ( $X^2 = 65.388$  with 3 degrees of freedom,  $P = .000$ , Cramer's  $V = .407$ ). Controlling for ethnicity did not significantly change these results although the differential is greater in the Mexican American than in the Anglo group. A lower percentage of Mexican American males (29.9 percent) than Anglo males (39.6 percent) responded that they *never* drink alone, while the Mexican American females (71.5 percent) responded at nearly the same levels as the Anglo females (71.4 percent). This would appear to indicate that sex role socialization in South Texas makes it more permissible for males to drink alone (including a beer when they come home from work or school) than for females.

#### SUMMARY

Five areas of alcohol-related behavior were investigated for a bi-cultural student population. These areas were the prevalence of drinkers in the population, reported drinking frequencies, drinking preferences, the use of specific drinking locations, and the choice of drinking companions. The data supports the conclusion that ethnicity,

especially ethnic differences in sex role association, is a key factor in molding drinking behavior for both Mexican American and Anglo students in South Texas.

The total sample of students at Pan American University exhibited a certain amount of conservatism in their reported drinking behavior, compared with national samples and samples of students from other regions of the country. This condition was especially evident for the females in the student population.

It is possible, even probable (given the 80 percent Mexican American, 20 percent Anglo demographic mix of the population), that the conservatism in drinking behavior exhibited by Pan American University students is the direct result of the social pressure applied by the strong positive and negative sanctions regarding drinking behavior found in the Mexican American culture of the Valley. Potentially this can be viewed as a case of acculturation to the dominant cultural values of the area on the part of the Anglo population.

In many instances the Mexican American and the Anglo males in the sample reported similarities in their drinking behavior. There were no significant differences in their responses to whether or not they drank, their overall drinking frequency, the frequency which they reported drinking beer, wine and liquor, and in some of their responses about their frequency of dinking in specified locations. However, the males of the two ethnic groups did differ significantly in their responses to their most frequent choice of drinking companions and in some of their responses to choices of drinking locations.

The Anglo females' responses to the questions, in several instances, put them in an intermediate position between the males' responses and those of the Mexican American females. This was especially true in the case of the prevalence of drinkers in this group and the responses of the females about the frequency of their drinking. There was no significant difference between the responses of the Anglo and Mexican American females in relation to the type of alcoholic beverage they most frequently drink; the responses about the frequency the Anglo females drank with specified individuals or groups was similar to those of the Mexican American females in many cases. However, their responses to the frequency of using specified drinking locations showed clear-cut ethnic differences, their responses being much more similar to Anglo males than to either of the Mexican American groups.

The Mexican American females, in the sample population, showed the greatest degree of conservatism in their reports of drinking behavior. They were far more likely not to drink and more likely to drink less frequently than any of the other three groups in the sample. They also showed greater conservatism on questions of how often students

drank with specified individuals or groups and at identified locations. This conservatism is partially explained, in the body of the text, by the effect of socialization into culturally appropriate values of modesty and respect for the student and by the existence of a "protective environment" for the Mexican American female students.

The strongest effects of ethnicity, on drinking behavior, other than in the area of sex role socialization, appeared to be in students' responses to the places and people with whom students most frequently drink and in the students' responses about the frequency they drank in those places or with those people and groups. This condition is at least partially explained by differences in socialization in regard to the question of respect and proper behavior in primary groups between the two ethnic groups.

All of these ethnic and sexual differences in alcohol-related behavior are potential keys to future efforts in alcohol education in the various ethnic populations, since they point to areas of necessary differentiation for those groups in terms of the messages and the environments appropriate to those messages that will need to be sent in regard to alcohol education and rehabilitation efforts.

#### FOOTNOTES

<sup>1</sup> The survey instrument was based on a combination of one designed for the Texas Commission on Alcoholism and on another designed for the college 50 plus 12 project. Two clusters of students, convenience samples, were picked to pretest the instrument. The first pretest focused on clarity of wording of questions and on the ordering of the questions. Several questions were eliminated or clarified and two were placed in a different order from the original. The second pretest indicated no problems in either of these two areas. The final questionnaire is available from the author on request.

<sup>2</sup> Tests of significance and measures of association were calculated for each cross-tabulation. Chi squared was used as the test of significance, while the calculated measures of association were Eta, Phi or Cramer's V, Lambda, Gamma, uncertainty coefficient, Tau b and Tau c, Pearson's R, and Sommer's D. The measure of association reported in the text depends on the closest match of the appropriate levels of measurement associated with the variables being used. The Chi squared values are not reported wherever the level of significance is above .05, since it is assumed that  $P < .05$  is the minimum level acceptable for demonstrating significance for this data. The measures of association are likewise reported only where a reasonable degree of association exists between the variables.

<sup>3</sup> Eta squared provides the reader with a convenient measure of the proportion of variance explained in each comparison and can be directly compared to similar calculations in other works.

<sup>4</sup> I am indebted to Dr. David Alvirez for pointing out the convergence of the concepts of respect and propriety of behavior in socialization relating to the family, and for suggesting the concept of "protective environment" as a convenient label for the sex role configuration of Mexican American females in

the Lower Rio Grande Valley. I would also like to thank Dr. Manuel M. Lopez for making some extremely valuable editorial comments on a preliminary draft of this paper.

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*Pan American University  
Department of Behavioral Sciences  
Edinburg, Texas 78539*