

## Drunk Driving Among Blacks and Hispanics

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Blacks comprise about 12 percent of the U.S. population, and Hispanics about 8 percent (Bureau of Census 1987). Research suggests that problem drinking and associated mortality rates are higher in these two minority groups than in the general public (Herd 1985; NIAAA 1982a). Yet, few studies have investigated the issue of drunk driving among blacks and Hispanics. This chapter summarizes relevant characteristics of these two groups, their drinking practices, and available information on their drunk driving behavior.

### Demographic Characteristics

Such factors as age, socioeconomic status, and rural/urban distribution may have significant effects on overall consumption patterns and drinking and driving behavior. Thus, the alcohol problems noted among blacks and Hispanics may be partially a function of their particular demographic profiles.

On average, the black and Hispanic populations tend to be younger than whites and underrepresented among persons 65 years of age and older (Bureau of Census 1987). For both blacks and Hispanics, socioeconomic status (as measured by income and education) is significantly lower than that for whites (Bureau of Census 1987). Among civilians age 16 and older, 54 percent of blacks are employed, versus 59 percent of Hispanics and 62 percent of whites (Bureau of Census 1987). Compared to whites, blacks and Hispanics are much less likely to live in rural areas (Bureau of Census 1984) where driving is a necessity.

The Hispanic population in the United States is a very heterogeneous group, with diverse national and sociocultural backgrounds (NIAAA 1987). According to the 1980 census, approximately 60 percent of the U.S. Hispanic population is of Mexican origin; 15 percent are considered Puerto Rican, 6 percent Cuban, and the remaining 20 percent are linked to other countries, including those in Central and South America (NIAAA 1982a; NHTSA 1987; DHHS 1986b). The black population of the United States is also heterogeneous, reflecting different cultural, regional, and socioeconomic perspectives.

### Consumption Patterns

#### Blacks

The data on drinking practices among blacks are somewhat inconsistent and difficult to interpret. Blacks are at high risk for alcohol-related medical problems, especially liver

cirrhosis and esophageal cancer (NIAAA 1987), and their cirrhosis mortality rate is nearly twice that for whites (Herd 1985). Yet, blacks of both sexes report higher abstinence rates than whites; and among drinkers, black men are less likely than white men to drink heavily (NIAAA 1987). Among female drinkers, the pattern is reversed; black women are more likely than white women to drink heavily (NIAAA 1987).

The relationship between age and drinking practices appears to differ by race. Alcohol consumption among white males age 18-29 is high, with a decline after age 30 (NIAAA 1987). Consumption among blacks, however, is relatively low in the 18-29 age group, rises dramatically among those in their 30s, and declines after age 39 (NIAAA 1987; NIAAA 1982*b*). According to a recent report prepared for the National Highway Traffic Safety Administration (NHTSA), black males in younger age groups "are at substantially less risk for high rates of heavy drinking than younger whites" (NHTSA 1987). Moreover, studies of adolescents consistently show lower rates of problem drinking and related arrests among blacks than whites (DHHS 1986*a*). On the other hand, data suggest that blacks enter alcohol treatment programs at younger ages than whites, the peak age for blacks being 35-44 compared to 45-54 for whites (NIAAA 1987).

The relationship between income level and drinking practices also appears to vary by race. For white men, increased income has been associated with increased heavy drinking (NIAAA 1987; Herd 1985). For black men, the reverse is true; increased income has been associated with decreased heavy consumption (NIAAA 1987; Herd 1985).<sup>1</sup> With respect to women, however, the two races are similar: increased income is associated with more frequent (as opposed to heavy) drinking (NIAAA 1987).

Drinking practices among blacks may differ by geographic region. In the Northeast, for example, the proportion of blacks in alcohol treatment is reported to be two to three times higher than their proportion of the regional population (NIAAA 1987; DHHS 1986*a*). But in the interior South, the number of blacks in treatment is generally proportional to their representation in the population (NIAAA 1987; DHHS 1986*a*).

## Hispanics

Compared to the general U.S. population, Hispanics in the aggregate have relatively high rates of heavy drinking and alcohol problems (DHHS 1986*b*). Yet, differences can be observed within the Hispanic population. As an example, Hispanic men in this country have relatively high rates of alcohol use and abuse (NIAAA 1987) as well as cirrhosis mortality (NIAAA 1982*a*), while Hispanic women show high rates of abstinence (NIAAA 1987). As is true for whites in general, consumption for both sexes seems to increase with increased income and educational levels (NIAAA 1987; Wilson and Williams 1983). With respect to age-related drinking problems, Hispanics are more similar to blacks than to whites. Whereas drinking problems among whites decline abruptly from their 20s to 30s, for Hispanics (and blacks) problems increase from their 20s to 30s and then decline gradually in their 40s (NHTSA 1987). First-generation American-born Hispanic men tend to drink more heavily than Hispanic-American men born abroad (NIAAA 1987).

Mexican Americans appear to consume more alcohol and report more drinking problems than the other Hispanic groups (Caetano 1988). The rate of "frequent high maximum" drinking is relatively large for Mexican-American women as well as men (Caetano 1988). Both sexes, however, also show high rates of abstinence (NIAAA 1987; Caetano 1988). Compared to the other Hispanic females, Puerto Rican women have the lowest abstinence rate, but data suggest that they are largely moderate drinkers with very few heavy drinkers among them (NIAAA 1987).

<sup>1</sup> Yet data from the 1983 National Health Interview Survey show similar income effects for black and white males (Wilson and Williams 1983).

Among Hispanic-American men born abroad, Mexican Americans have a low rate of abstinence and a rate of heavy drinking six times that of any other national subgroup (NIAAA 1987). Conversely, Mexican-American women born abroad have a relatively high rate of abstinence and virtually no heavy drinking (NIAAA 1987).

## Drunk Driving Behavior

One of the barriers to obtaining information on drunk driving among racial and ethnic minorities is the failure of the records system to collect appropriate data. Depending on the purpose for which drunk-driving information is gathered, ascertaining race and ethnicity may be deemed unimportant. Political and legal considerations may further limit the availability of relevant data. Drunk driving is a criminal and civil offense that can have severe personal consequences for the driver involved. Moreover, the stigmatization of individuals accused of drunk driving can also taint the groups to which they belong. Under these circumstances, government authorities may be reluctant to collect pertinent information on specific ethnic groups, or they may decline to release data that has been collected.

The use of death certificates to determine the proportion of traffic fatalities attributable to drunk driving grossly underestimates the contribution of alcohol to such deaths (Dufour et al. 1985). The physician who completes the death certificate may not be the one who provided medical care to the patient and would not necessarily be aware of alcohol involvement (Dufour et al. 1985). Another problem is that some physicians do not recognize the importance of death certificate data for advancing medical and scientific knowledge and fail to record complete information (Dufour et al. 1985). And even when they have the full picture, they may wish to protect the deceased person's family from the stigma and financial liability associated with an alcohol-induced accident.

A more appropriate national data system for investigating alcohol involvement in traffic fatalities is the Fatal Accident Reporting System (FARS), which contains detailed information on the driver, vehicle, and environmental characteristics associated with each traffic death (Dufour et al. 1984).<sup>2</sup> Unfortunately, FARS does not include data on the race of persons involved in these fatal accidents. Death certificates indicate the race of the deceased, but not FARS. Thus, to generate statistics on racial differences in alcohol-related traffic deaths in the United States, FARS has been linked with the Multiple Cause of Death (MCD) data system, which is based on death certificates (Dufour et al. 1984).

This linkage makes it possible to investigate the effects of race on alcohol-related traffic fatalities for the country as a whole. With respect to Hispanics, however, missing data are still a problem, because the majority of States do not currently include the category "Hispanic" on their death certificates. Beginning in 1989, 10 States will pilot test a new death certificate that does contain a Hispanic category, and it is hoped that by 1990, all 50 States will collect such information (personal communication M. Dufour, NIAAA, January 1989).

Despite these various limitations, important relationships have been observed between race or ethnicity and drunk driving. Blacks and Hispanics both appear to be at high risk for alcohol-related driving problems.

<sup>2</sup> A FARS accident is one that involves a motor vehicle moving on a roadway customarily open to the public and resulting in the death of a person (occupant or nonoccupant of the vehicle) within 30 days of the accident (Dufour et al. 1984).

## Blacks

The report prepared for NHTSA concluded that blacks are at greater risk than whites for traffic accidents due to drinking (NHTSA 1987). Germane to this conclusion is the Grand Rapids, Michigan study which showed that nonwhite drivers were involved in proportionally more collisions than whites (Zylman 1972; Hyman 1968a). Among those experiencing collisions, a greater proportion of nonwhites than whites had been drinking, and the BAC levels for nonwhites were considerably higher than those of whites (Zylman 1972; Hyman 1968a; Cosper and Mozersky 1968). According to Hyman's analysis, the higher accident vulnerability of the nonwhite males extended across every BAC and educational category. Even in the control group (who were not involved in accidents), nonwhites were overrepresented in the high BAC categories.

Linkages between FARS and the Multiple Cause Mortality records were effected for 2,700 Oklahoma residents who died in motor vehicle accidents in the late 1970s (Dufour et al. 1984). This facilitated the investigation of relationships between race and alcohol involvement in these deaths. Results indicated that 46 percent of the black deaths and 41 percent of the white deaths were alcohol-related. Alcohol involvement was determined by BAC testing for 91 percent of the blacks and 78 percent of the whites. In the remaining cases, it was determined by the judgment of the investigating officer. A much stronger relationship between race and alcohol involvement in fatalities was reported by Waller and his colleagues (1969). They found that 76 percent of black drivers killed in traffic crashes in California had been drinking, compared to only 56 percent of whites. Moreover, 53 percent of the blacks had BACs above a level of 0.15 percent compared to only 34 percent of the whites.

As recently as 1973, the drunk-driving arrest rate for black adults in the United States was nearly twice as high as that for whites, but since then the two rates have converged (Herd 1985). Thus, in 1981 the DUI arrest rate among persons 18 years of age and older was 951 per 100,000 population for blacks and 917 for whites (Caetano 1984). And for persons under 18 years of age, the blacks actually showed a much lower DUI arrest rate than the whites—6.5 arrests per 100,000 population for blacks compared to 47.7 for whites (Caetano 1984).

Further data on arrests come from studies in specific localities. In a 1968 report, black males in Columbus, Ohio were twice as likely to be arrested for driving while intoxicated as were other men in the 20-64 age range (Hyman 1968b). But over the 1972-75 period, Rabow and Watts (1982) found no significant correlation between the percentage of black households in 51 California counties and arrest rates for misdemeanor or felony drunk driving.

A recent analysis of recidivism patterns in Mississippi (Wells-Parker et al. 1988; Anderson personal communication 1988) suggests that blacks in that particular State are at higher risk of being rearrested for drunk driving than whites. The study found that 61 percent of black offenders under age 25 and 50 percent over age 25 were rearrested for DUI during the 6- to 9-year tracking period beginning in 1976. Recidivism rates for whites in the same age groups were 46 percent and 41 percent, respectively. When the investigators controlled for other offender characteristics such as age, level of education, and severity of drinking problem, the blacks were approximately 1.4 times more likely to recidivate than the whites.

For reasons that are unclear, limited survey data indicate that blacks are less likely to report driving while drunk than are whites (NIAAA 1987; Herd 1985). Among men, the reported rate for whites is more than two and a half times higher than that for blacks. And among women, the white rate is more than five times higher than the black rate

(Herd 1985).<sup>3</sup> The possible influence of differential car ownership on these relationships has not been discussed.

## Hispanics

Caetano's analysis of FBI statistics for 1981 indicated that among persons 18 years of age and older, the arrest rate for driving under the influence was more than twice as high for Hispanics as non-Hispanics (Caetano 1984). Specifically, the rate per 100,000 population was 1,712.2 for Hispanics and 742.6 for non-Hispanics. Yet, the DUI arrest rate among persons younger than 18 years of age was only slightly higher for Hispanics than non-Hispanics (39.8 per 100,000 population compared to 34.2 (Caetano 1984)). An examination of *total* arrests for Hispanics and non-Hispanics in the 18-plus age range showed that 19 percent of the Hispanic arrests were for driving under the influence, compared to 17 percent of the non-Hispanic arrests (Caetano 1984).

Studies of California populations support Caetano's finding that Hispanic arrests for drunk driving are relatively high. Hyman (1968*b*) reported an overrepresentation of Spanish surnames among persons arrested for drunk driving in Santa Clara County. After controlling for urbanization and income, Rabow and Watts found a significant correlation (.42) between misdemeanor arrests for drunk driving and the percentage of Spanish Americans in 51 California counties (Rabow and Watts 1982). However, there was no significant correlation for felony drunk-driving arrests. Consistent with these findings are three other California studies summarized by Caetano (DHHS 1986*b*). All showed an overrepresentation of Hispanics among arrestees for drunk driving (also see NIAAA 1982*a*).

In addition, several studies indicated that Hispanics are disproportionately involved in alcohol-induced crashes. During the 1970s, May and Baker (1974) found an overrepresentation of Hispanic drivers in alcohol-related traffic accidents in New Mexico, and Alcocer reported that the rate of traffic accidents resulting in injuries or fatalities was higher for Hispanic than non-Hispanic neighborhoods of Los Angeles (DHHS 1986*b*). Moreover, a higher proportion of the Hispanics than non-Hispanics who had been arrested for DWI in Hyman's Santa Clara study had been involved in accidents (Hyman 1968*b*; Hyman et al. 1972). The BAC levels also tended to be higher for the Hispanic than non-Hispanic arrestees (Hyman 1968*b*).

## Interpretation

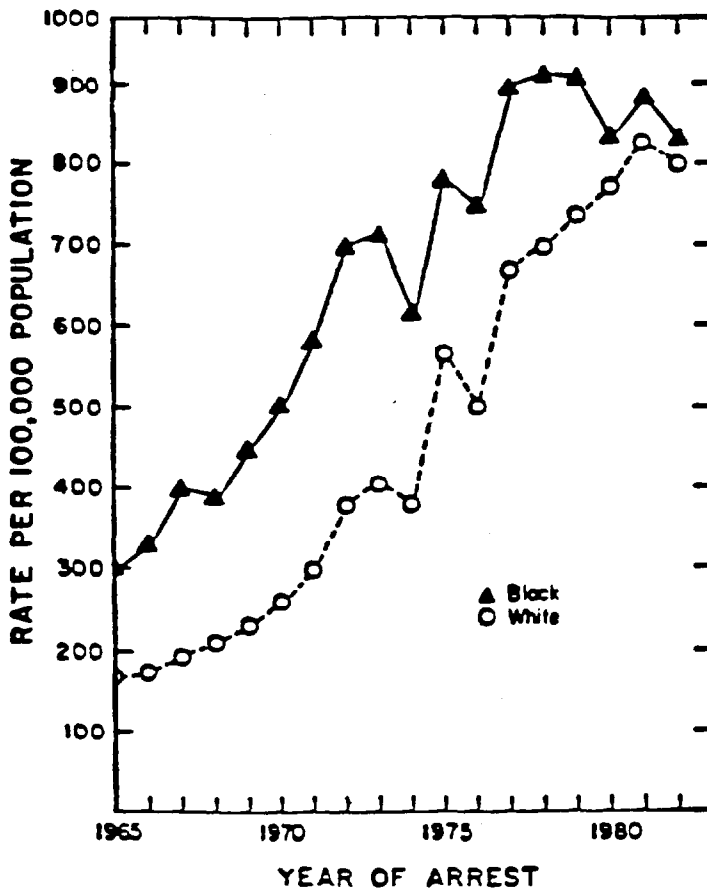
Drunk driving can be measured directly through roadside surveys, including breath-alcohol tests of drivers. It is indirectly measured by crashes ("accidents"), especially fatal crashes, which are strongly correlated with drunk driving, and by arrests, although the latter is a weaker index because of its sensitivity to the level of police activity. In general, the available evidence suggests that black and Hispanic drivers are more likely than members of other groups to be impaired by alcohol.

Roadside survey data obtained in the Grand Rapids study (Zylman 1972; Hyman 1968*a*; Cospers and Mozersky 1968) revealed that blacks were more likely than whites to drive with high BACs and to have crashes. The study stands alone, as more recent roadside surveys have failed to gather racial and ethnic data. Unfortunately, the Grand Rapids study cannot be considered recent, but its conclusion of black overinvolvement in drunk driving is supported by independent studies of involvement in fatal crashes

<sup>3</sup> Data from Cospers and Mozersky's study of Grand Rapids and "Greentown" respondents are consistent with these patterns (Cospers and Mozersky 1968).

(Dufour et al. 1984; Waller et al. 1969). These latter studies show that when blacks have fatal crashes, they are more likely than whites to have alcohol in their blood. However, these investigations do not in themselves demonstrate a higher fatal crash rate for blacks on a per capita basis. The studies using arrest (Herd 1985; Caetano 1984; Hyman 1968b; Rabow and Watts 1982) and rearrest (Wells-Parker et al. 1988) data have produced inconsistent findings in the matter of black overinvolvement, perhaps related to the weakness of the criterion variable (arrests).

Since 1965, both whites and blacks have shown dramatic increases in DUI arrest rates among persons 18 years of age and older, but whites have shown the greater change over time, thereby closing the gap between the races (see figure 1). Although the reasons for these patterns are unclear, several other trends suggest that increased law enforcement (DHHS 1986a) is the explanation rather than increased drunk driving. The mileage-based highway mortality rate has been declining over time (National Safety Council 1986) as has the proportion of fatal crashes in which alcohol is implicated (NHTSA 1988), and roadside surveys are finding proportionately fewer alcohol-impaired drivers than in earlier years (Wolfe 1986).



**Figure 1. U.S. arrest rates for driving under the influence: Persons 18 years and over, by race, 1965-1982**

Source: This figure was reproduced from Herd (DHHS 1986a, page 101). The data sources for arrest rates were the Uniform Crime Reports and Current Population Reports. The 1981 arrest rates portrayed here are lower than those reported by Caetano (1984) because the two authors used somewhat different estimates of the relevant 1981 populations. However, in both cases the arrest rates for blacks and whites were quite similar.

Concerning the drinking and driving of Hispanics, no roadside survey-based studies are available. However, several studies reported overinvolvement of Hispanics in alcohol-related crashes (DHHS 1986b; Hyman 1968b; Hyman et al. 1972), and large excesses of drunk-driving arrests are reported in the literature (Caetano 1984; Hyman 1968b; Rabow and Watts 1982). The consistency of these findings leads to the conclusion that Hispanics are unusually likely to engage in drinking and driving.

One possible interpretation of the findings concerning arrests of Hispanics, and also blacks, is that police are disproportionately likely to arrest minority-group members (DHHS 1986b). If so, the reported overinvolvement of minorities in drunk driving would be misleading (see Morales cited in DHHS 1986b). However, the only study on the issue (Hyman et al. 1972) reported that a higher proportion of Hispanic than non-Hispanic drunk drivers are arrested as a consequence of accidents rather than moving violations, a fact inconsistent with the idea that the excess of arrests stems from police bias. Studies showing excess alcohol-related crashes for minorities may have to contend with different proportions of blood-alcohol testing (Dufour et al. 1984), which again could produce misleading conclusions. However, the finding that fewer of the majority group are tested suggests that their relative rate of impaired driving may be overestimated (assuming that testing is first done on those most reasonably suspected of drinking, and that the rate is calculated on the basis of the population tested). Thus, the estimate of excessive involvement of the minority is likely to be conservative rather than overstated.

If the conclusion of minority overrepresentation in drunk driving is valid and not merely a measurement artifact, it requires further explanation. Two straightforward interpretations are that minority status is related to more heavy drinking and to more frequent driving. However, the latter possibility (excessive driving exposure) could potentially explain only population-based indexes, like ordinary arrest rates. A third possible interpretation is that minority-group members, though neither disproportionately drinking nor driving, are more likely to combine these behaviors.

The first explanation, heavier drinking, is clearly supported for Hispanics, though not so clearly for blacks. Why Hispanics, in particular, should be disproportionately heavy drinkers may be explicable on cultural grounds. The "machismo" (manliness) attitude of Hispanic men (Ames and Mora 1988) may contribute to their higher rates of alcohol-related arrests and accidents by leading to an increase in risk-taking behavior. Relevant also is the "cruising" practiced by Hispanic men (and occasionally women) in the Southwest. This cultural practice involves driving slowly while drinking alcoholic beverages and flirting with the opposite sex. It is facilitated by a social network that encourages and sanctions the simultaneous use of automobiles and alcohol. It also makes these men more visible to police and more vulnerable to arrest (J. Cuellar, Prevention Research Center, Berkeley, CA, personal communication October 1988).

The second explanation—that minorities drive more than other people—has no empirical support. Rather, minority-group family automobile ownership and individual driving appear to be lower, and mileage less, at least among blacks (Cosper and Mozersky 1968; Hyman 1968b). The relatively high urbanization of both blacks and Hispanics may reduce their need and opportunity to drive. Thus, the excess of minority arrests for drunk driving would seem to be conservatively stated.

Zylman's (1972) suggestion that black overrepresentation in accidents may be due to residing (and hence driving) in congested areas must be regarded as merely speculative. A related speculation, also not yet empirically grounded, is that minority-group members have less access to transportation alternatives when drinking; these could include formal alternatives such as mass transit and taxis, or informal ones such as the practice of accepting designated drivers in drinking groups.

Indirect support for the third explanation, mixing drinking and driving, comes from the Grand Rapids study finding that, compared with others, blacks offer a larger estimate of the safe number of drinks that can be consumed before driving (Cosper and Mozersky

1968). Moreover, the suggestion has been made that minority-group members may disproportionately drink in locations away from home, such as bars and parking lots, presenting the inducement to drive while impaired. However, a recent national survey found only equivocal support for this idea (Caetano and Herd 1987). In any event, the need to use automobiles for nearly all social purposes is so fundamental in American life that such differences would probably be only marginal in their effect.

Both blacks and Hispanics are disproportionately youthful groups, which leads to the suggestion that their overinvolvement in drunk driving may merely reflect their demographic characteristics. However, among young people in both groups, the differences from the majority in arrest rates are either reduced or reversed (Caetano 1984), a finding that contradicts the demographic explanation.

A commonly offered explanation of minority involvement in drunk driving hinges on the low socioeconomic status of blacks and Hispanics in America. However, controls for occupation, education, and income, although possibly successful in reducing the linkage between minority status and indexes of drunk driving, do not seem to eliminate the relationship (Zylman 1972; Hyman 1968a; Rabow and Watts 1982).

In brief, the excess involvement of minorities in drunk driving seems to be real and not a statistical artifact. It is not merely the reflection of age or class differences related to race and ethnicity. Rather, it is best interpreted as a consequence of minority-group members' excess involvement in drinking, especially in heavy-drinking episodes. This may be marginally compounded by a relatively greater conjunction of drinking and driving behaviors in the groups discussed. The development of appropriate policy countermeasures would thus seem to be served by a more thorough understanding of the definitions of drinking and of driving in the black and Hispanic subcultures of the United States.

## Research Priorities

The data on black drinking patterns suggest inconsistencies between self-reported consumption practices and medical problems induced by alcohol. Research is needed to clarify the reasons for the apparent inconsistencies—whether, for example, self-reports of blacks are distorted in the direction of social desirability, or whether a longer duration of drinking among blacks (DHHS 1986a) increases the risk of medical problems.

Since the full extent of the drunk driving problem is also not clear in either of these minority groups, more precise and complete measures are needed of alcohol use and abuse among blacks and Hispanics, with particular reference to drunk driving.

In addition, it is important to determine the extent to which the higher DUI arrest or rearrest rates among these two groups reflect real differences in drunk driving or differential law enforcement by police. The relationship of other variables to drinking patterns and drunk driving among blacks and Hispanics should also be more extensively explored. Such variables include age, income level, geographic and urban/rural distribution, and car ownership.

Perhaps most important, researchers should develop and test prevention strategies tailored to specific subcultures in which alcohol contributes to social bonding, social status, social integration, and coping with misfortune. The appropriate choice of intervention strategies will be enhanced by a better understanding of the cause of drunk driving problems among blacks and Hispanics. However, the evidence at hand is sufficient to begin the process of prevention research.



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