

NATIONAL SURVEY OF DRINKING AND DRIVING

Attitudes and Behavior: 1997

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<http://www.nhtsa.dot.gov>



1. Report No.

DOT HS 808 844

2. Government Accession No.

3. Recipient's Catalog No.

4. Title and Subtitle

National Survey of Drinking and Driving Attitudes and Behavior: 1997

5. Report Date

November, 1998

6. Performing Organization Code

B. Performing Organization Report No.

9j Performing Organization Name and Address
Dawn Balmforth

The Gallup Organization
One Church Street, Suite 900
Rockville, MD 20850
301/309-9439

10. Wort Unit No. (TRAIS)

11. Contract or Grant No.

DTNH22-96-C-05081

fj Sponsoring Agency Name and Address

U.S. Department of Transportation
National Highway Traffic Safety Administration (NHTSA)
Office of Research and Traffic Records
Washington, D.C. 20590

13. Type of Report and Period Covered

14. Sponsoring Agency Code

IS. Supplementary Notes

Paul J. Tremont, Ph.D. was Contracting Officer's Technical Representative

Abstract

This report represents the fourth in a series of biennial national surveys undertaken by the National Highway Traffic Safety Administration starting in 1991, and reports data from this fourth administration as well as those of the first three administrations (1991, 1993 and 1995). The objective of these recurrent studies is to measure the status of self-reported attitudes, knowledge and behavior of the general driving age public related to drinking and driving. The data are used to help support NHTSA initiatives and to identify areas of improvement and those in need of further attention in the pursuit of the reduction of drinking and driving. These surveys measure various topics related to drinking and driving including reported frequency of drinking and driving, prevention and intervention, riding with impaired drivers, designated drivers, perceptions of penalties and enforcement, and knowledge of Blood Alcohol Concentration (BAC) levels.

The 1997 survey administration findings indicate that, for the most part, following improvement between 1991 and 1993, and again between 1993 and 1995, attitudes and behaviors among those aged 16-64 have held constant since 1995. The proportion of the population who report driving within two hours of drinking in the past year declined from 28% in 1991 and 1993 to 24% in 1995, and remains virtually unchanged in 1997 at 25%. Similarly, the proportion who put themselves at risk by riding with a potentially impaired driver declined between 1993 and 1995, and remains near the 1995 level of 11%. The driving age public sees drinking and driving as a threat to their personal safety (99%), and 85% feel it is very important to do something to reduce the problem. Perceptions of the effectiveness of current laws and penalties at reducing drinking and driving have improved since 1993 (from 59% to 64% in 1997). Support for increased use of sobriety check points increased slightly since 1993 from 64% to 68% in 1997. More persons age 16-64 are aware of BAC levels than in 1995 (84% up from 79% in 1995). However, just 29% of the driving age public correctly knows the BAC limit in their state (up from 20% in 1995). A majority of those who are aware of BAC levels (56%) support a legal limit of .08 or lower for their state.

17. Key Words

Drinking, Driving, Attitudes, DWI, Survey, BAC

18. Distribution Statement

This report and database are available from the National Technical Information Service, Springfield, VA (703) 487-4650

19. Security Classif. (of this report)

20. Security Classif. (of his page)

21 No. of Pages

22. Price

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Executive Summary

Background

The National Highway Traffic Safety Administration's (NHTSA) mission is to save lives, prevent injuries, and reduce traffic-related health care and other economic costs. The goal of NHTSA's Impaired Driving Program is to meet the U.S. Secretary of Transportation's objective of reducing alcohol-related fatalities to 11,000 by the year 2005.

In order to plan and evaluate programs intended to reduce alcohol-impaired driving, NHTSA needs to periodically update its knowledge and understanding of the public's attitudes and behaviors with respect to drinking and driving. NHTSA began measuring the driving age public's attitudes and behaviors regarding drinking and driving in 1991. This study represents the fourth of these biennial surveys designed to track the effectiveness of current programs and to identify areas in need of attention.

Telephone interviews were conducted with a nationally representative sample of 4,010 persons of driving age (age 16 or older) in the United States between October 12 and December 12, 1997. Findings from the current survey are presented first.

Key Findings

Drinking and Driving Behavior

About 24% of the driving age public have driven a motor vehicle within two hours of consuming alcoholic beverages in the past year. These persons are referred to as "drinker-drivers" throughout this report.

Males are almost three times as likely to have driven within two hours of drinking as are females (36% compared to 13%).

Adults age 21 to 29 are the most likely to be drinker-drivers, with 47% of males and 22% of females driving within two hours of alcohol consumption.

On average, drinker-drivers consume 2.5 drinks prior to driving. Drinker-drivers under age 21 consume an average of 4.6 drinks prior to driving.

Drinker-drivers operate a motor vehicle with an average blood alcohol concentration (BAC) of .03, which is well below the legal limit for those age 21 or older; however, about 5% of drinker-drivers are estimated to have a BAC of .08 or higher.

One in ten (10%) persons age 16 or older has ridden with a driver they thought might have consumed too much alcohol to drive safely. This number rises to about one in seven among those age 21 to 29 (14%), and to one in five among those age 16 to 20 (23%). Six in ten riders decided that their drivers were unsafe *before* they were riding in the vehicle, but still rode with them.

Attitudes About Drinking and Driving

The driving age public sees drinking and driving as a serious problem that needs to be dealt with. Virtually all (97%) see drinking and driving by others as a threat to their own personal safety and that of their family, and more than four of five (86%) feel it is very important that something be done to reduce drinking and driving.

Large proportions of those age 16 and older are supportive of "zero tolerance" for drinking and driving. Eight of ten (82%) believe that scientific evidence has shown that any amount of alcohol impairs driving. Three of four (76%) agree that people should not be allowed to drive if they have had any alcohol at all.

A majority (63%) of persons of driving age believes that they, themselves, should not drive after consuming more than two alcoholic beverages. In contrast, male drinker-drivers under age 30 feel that they can safely drive after consuming about four drinks within two hours. An average 170-pound male would still be below the legal limit after four drinks, even if that were on an empty stomach.

Prevention and Intervention of Drinking and Driving

Drivers under age 21 who drink are most likely to use various strategies to avoid drinking and driving occasions. Going to a place or event where alcohol was present, but not drinking alcohol, and drinking at such a place but not driving afterwards are the most likely strategies to be employed.

About four in ten drivers 16 or older who consume alcoholic beverages, report at least one occasion where they refrained from driving when they thought they may have been impaired. Most of these persons rode with another driver instead.

Virtually all (98%) of those 16 and older feel that they should prevent someone they know from driving if they are impaired. Thirty-two percent (32%) of persons of driving age have been with a friend who may have had too much to drink to drive safely. Most (83%) tried to stop the friend from driving. Intervention was successful about 80% of the time.

One-third of those 16 or older have ridden with a designated driver in the past year, with those under age 30 most likely to have done so. Three in ten drivers have acted as a designated driver in the past year. Designated drivers were reported to have consumed less than one-half of one alcoholic drink, on average, prior to driving.

Enforcement

About 4% of the driving age public has been stopped for suspicion of impaired driving. Of these, one in eight (12%) were arrested for a drinking-driving violation. Males, under age 30 were most likely to be stopped for suspicion, with males age 16 to 18 the most likely to have been arrested. This is consistent with the higher average calculated BAC levels of drinker-drivers age 16 to 18.

The driving age public generally feels that an impaired driver is more likely to have a crash than to be stopped by police. On average, the public feels that about 40% will get in a crash while the police will stop about 28%.

About 60% feel that current drinking and driving laws and penalties are effective at reducing drinking and driving. Yet, three of four (74%) persons age 16 or older feel that drinking-driving penalties should be more severe.

Once charged with a drinking and driving violation, most (89%) persons of driving age believe that it is likely that a person will be punished. They feel that first-time offenders are most likely to receive a fine or a suspended/restricted license.

Three of ten (29%) persons of driving age have seen a sobriety checkpoint in the past year. About 16% have been through such a checkpoint themselves. A majority (67%) feel that sobriety checkpoints should be used more frequently.

Blood Alcohol Concentration (BAC) Levels

More than four of five (84%) persons of driving age have heard of blood alcohol concentration (BAC) levels, but fewer than three in ten (29%) can correctly identify the legal BAC limit for their state.

More than one-half (56%) of driving age residents who have heard of BAC levels support the use of a .08 BAC legal limit in their state. Eight of ten (80%) of those who currently reside in .08 states believe that the limit should remain at .08 or be made stricter, while 40% of those in .10 states feel their state should lower the limit to .08.

Support for .08 is strongest among those who do not drink and drive, with 61% feeling the limit should be .08 or stricter. While support is not as strong, 36% of those who drink and drive support a BAC limit .08 or stricter.

Crash Experience

One in ten (11 %) persons of driving age were involved in a motor vehicle crash as a driver in the past year. Alcohol was involved in about 2% of reported crashes.

Drivers under age 21 were more likely to be involved in a crash as both a driver and a passenger than were other drivers.

Trends 1991-1997

A key purpose of this study is to examine trends in attitudes and behaviors regarding drinking and driving. While new questions have been added to the surveys in 1995 and again in 1997, much of the survey content has remained similar to the 1991 benchmark study. Data on similar questions was compared to identify statistically significant changes over time (differences highlighted in this report were found to be significant using ANOVA, Pearsons chi-square tests and paired t-tests as appropriate, at a $p=.01$ level).

Since the 1991 study only included persons age 16 to 64, this trend analysis includes only this age group for comparisons across all four years.

Drinking-Driving Prevalence

The proportion of the driving age population who report driving within two hours of drinking declined from 28% in 1991 and 1993 to 24% in 1995, but remained about the same at 25% in 1997.

Among drivers who drove after drinking alcohol in the past year, the average number of past-month trips declined steadily from 2.3 trips in 1991 to 1.5 trips in 1995, but remained roughly the same at 1.7 average monthly trips in 1997.

The amount of alcohol consumed on the most recent trip also remained consistent with an average of 2.6 drinks in 1995 and 2.56 drinks in 1997.

The total number of estimated drinking and driving trips decreased by about 26% between 1993 and 1997 from about 1.3 billion to an estimated 968 million. Such trips have decreased most among those age 35 to 45 (about a 38% decline).

Designated Drivers-Riding with Impaired Drivers

While relatively few persons age 16 to 64 put themselves at risk by driving with an impaired driver, this level still has decreased from its 1991 level of 15% to about 11% currently.

While the reported use of designated drivers decreased between 1993 and 1995 (from 37% to 32%), the current data show an increase back to the 37% level found in 1993. There has also been a reported increase in drivers acting as a designated driver. Increases in being a designated driver are particularly large among 16- to 29-year-olds.

Beliefs about Enforcement

A larger proportion of persons of driving age believe that current laws and penalties to reduce drinking and driving are effective in 1997 (64%) than was found in 1995 (59%). Support for more frequent use of sobriety checkpoints increased from 64% in 1993 to 68% in 1997.

Awareness and Knowledge of BAC Levels

Awareness of BAC (blood alcohol concentration) levels increased between 1995 and 1997, with about 84% of the driving age public reporting awareness as compared to 79% in 1995. Just 29% of the driving age public correctly knows the BAC limit for their state; however, this is improved from the 20% who knew it in 1995.

Introduction

Background and Objectives

In the United States more than 300,000 persons were injured and more than 17,000 persons (41% of crash fatalities) died in alcohol-related motor vehicle crashes during 1996 (Traffic Safety Facts 1996, National Center for Statistics and Analysis, NHTSA). In comparison to the mid-1980's, these figures reflect a significant reduction in alcohol-impaired driving, but the toll of injuries and fatalities remains unacceptably high.

The National Highway Traffic Safety Administration (NHTSA), along with other national and state organizations, has aggressively worked toward reducing the incidence of alcohol-related motor vehicle crashes. Passage of the 21-year-old minimum drinking age laws in all 50 states and the District of Columbia, as well as the more recent consideration by Congress to establish a stronger national standard for drinking and driving (setting 0.08 percent blood-alcohol content as a threshold for impaired driving) is indicative of continuing progress in this area.

This 1997 survey represents the fourth in a series of biennial surveys begun in 1991. The objective of these studies is to measure the current status of attitudes, knowledge and behavior of the general driving age public with respect to drinking and driving. The data collected are used to track the nature and scope of the drinking-driving problem and to identify areas in need of further attention in the pursuit of reduced drinking and driving.

Methods

Sampling Objective

The sampling objective of the study was to acquire a representative national sample of the general driving age public (age 16 and older). A telephone survey was used to reach the target population and to provide national estimates of attitudes and behaviors regarding drinking and driving.

Gallup used a two-stage procedure to meet the sampling objective:

1. Once the universe of residential telephone listings was identified within each of the geographic U.S. Census regions, Gallup drew a systematic sample of telephone 100-number blocks within each region. Gallup then randomly generated the last two numbers for a full ten-digit phone number within each valid block selected in the previous stage. This procedure provides for an equal probability of selection for each working residential telephone number in the U.S. (both listed and unlisted residential telephone households).
2. In the second stage, a single respondent was randomly selected (Gallup using the "most recent birthday" method) for inclusion from all eligible members of the driving public residing in that household.

Up to 14 attempts were made to reach each randomly selected respondent. Seven attempts were made to reach the household, and once a respondent in the household was identified, Gallup made up to seven additional attempts to reach that person.

Gallup completed a total of 4,010 telephone interviews with persons age 16 and older between October 12 and December 12, 1997. Interviews were completed in both English- and Spanish-language, using a computer-assisted-telephone interviewing (CATI) system.

Sample Weighting

The final telephone sample of persons age 16 and older was weighted to equalize selection probabilities (at both the household and the individual levels) and to adjust for non-response bias by demographics. The following four-stage procedure was used:

1. In step one, households with multiple telephone lines (which results in giving them a higher chance of falling into the sample) were given a weight equal to the inverse of the number of telephone lines in the household.
2. To correct the disproportionality of unequal selection within the household (persons in household with only one person of driver age or older have a greater chance of selection than households with multiple eligible people), the inverse of the total number of persons age 16 or older was applied.
3. In the third stage, Gallup weighted the actual respondent database (weighted in the first two stages) to match the known demographic characteristics of the U.S. population by age, race, and gender based on the most recent Census Population Projections.
4. Finally, Gallup projected the sample population up to the total non-institutionalized national population age 16 or older.

The final number of weighted and unweighted interviews by age and gender appear below:

	Gender			Age				
	TOTAL	Male	Female	16-20	21-29	30-45	46-64	65+
Unweighted	4,010	1,734	2,276	282	588	1,412	1,076	629
Weighted	4,010	1,925	2,085	367	632	1,279	1,090	624
Maximum sampling error range	±1.6%	±2.4%	±2.1%	±5.8%	±4.0%	±2.6%	±3.0%	±3.9%

Precision of Sample Estimates

All sample surveys are subject to sampling error in that results may differ from what would be obtained if the whole population had been interviewed. The size of such sampling error depends largely on the number of interviews. For this sample of 4,010 telephone interviews, the expected maximum sampling error range is approximately +/- 1.6% at the 95% level of confidence. The table above shows the sampling error ranges by age and gender at the 95% level of confidence. Due to the stratification and other complexities of the sample design, in some cases (particularly among smaller sub-groups of the population) the error ranges will be slightly larger than those shown in the table. This information is provided to offer the reader a *general* sense of the range of the true estimates. Appendix A: Methods, presents a table showing the expected sampling error ranges for other sub-groups in the sample.

Data Presented

The findings of this study are presented in two parts. The first section examines the results from the current survey administration. The second part (beginning on page 73) examines trends over the four survey administrations.

Part one is presented in the following chapters:

- Drinking and Driving Behaviors
- Perceptions of Drinking and Driving as a Problem
- Prevention and Intervention
- Enforcement of Drinking and Driving Laws
- Knowledge and Awareness of BAC Levels and Legal Limits
- Motor Vehicle Crash and Injury Experience

The following definitions are used throughout this report:

Drinking-drivers: persons who drove within 2 hours of consuming alcohol

Other drivers who drink: persons who drank alcohol in the past year, and who drove in the past year, but have not driven within two hours of consuming alcohol

Problem drinkers: "Problem drinkers" are defined as those who meet at least ONE of the following three conditions:

- a.) Said "y^{es}" to two or more of the "CAGE" measures;
"Have you felt you should cut down on your drinking?" ("C" for "cut down");
"Have people annoyed ("A") you by criticizing you about your drinking?";
"Have you felt bad or guilty ("G") about your drinking?"; "Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover?" ("E" for "eye-opener").
- b.) Consumed five or more drinks on four or more days in a typical four-week period; or
- c.) For females, consumed eight or more drinks on a given day in the past four weeks, or for males, consumed nine or more drinks on a given day in the past four weeks.

(Ewing, 1984; Skinner and Holt, 1987)

It should be noted that problem drinkers are not by definition drinker-drivers, as they may not drive after consuming alcohol.

Trip: a single occasion a person drove a motor vehicle

Drinking-driving trip: a trip in which a person drove a motor vehicle within two hours of consuming alcohol

BAC (Blood Alcohol Concentration) Estimate V (calculated using the following formula):

```
compute mass=bodwgt/2.2046.  
if sex=1 waterpc=.58.  
if sex=2 waterpc=.49.  
metabac=(qn39+(qn41/60)-1)*0.012.  
compute waterkg=mass*waterpc.  
compute alcoz=qn38*.045.  
compute alcml=alcoz*23.36.  
compute alcg=alcml*.806.  
compute alckg=alcg/100.  
if waterkg>0 estbac=100*(alckg/waterkg).  
if estbac deltabac=estbac-metabac.  
if deltabac<0 deltabac=0.
```

Where: bodwgt=weight in pounds

sex=1-male 2-female

qn39=time spent drinking (in hours)

qn41=time from last drink to drive (in minutes)

qn38=number of drinks consumed

1997 Survey Administration Findings

Chapter 1: Drinking and Driving Behaviors

This section provides information on the driving age public's behaviors with regard to drinking and driving. Specifically it covers the following topics:

- Prevalence and frequency of past-year and past-month drinking and driving behavior
- Estimates of total drinking and driving trips
- Drinking patterns of drinker-drivers and others who drink
- Characteristics of drinking-driving occasions
- Estimated BAC levels
- Identifying problem drinkers; comparisons with other drinking drivers
- Riding with potentially unsafe drivers

Drinking and Driving Behavior

Past-Year and Past-Month Drinking and Driving Prevalence

Nearly one in four (24%) persons of driving age have driven a motor vehicle within two hours of consuming alcoholic beverages in the past year. Males are almost three times as likely to exhibit such behavior as females, with 36% of males and 13% of females reporting at least one drinking-driving trip in the past year. [Figure 1-A].

Adults age 21 to 29 are the most likely to report having driven within two hours of consuming alcohol, with almost half of all males in their 20s and 22% of females in their 20s reporting such behavior. Those under legal drinking age are the least likely to have driven within two hours of drinking alcohol, with about 8% of those age 16 to 18 and almost 20% of those age 19-20 reporting past-year drinking-driving trips. Females under age 21 are as likely as males of the same age to have driven after consuming alcohol.

While one of the goals of this study is to obtain past-year estimates of drinking and driving behaviors, the accuracy of specific recall of drinking-driving trips over shorter periods is generally more reliable, particularly for behaviors that occur frequently. Thus, past year drinker-drivers were also asked for the total number of drinking-driving trips they had made within the past 30 days.

Nearly one in eight (13%) adults of driving age has driven within two hours of drinking alcohol within the past 30 days. In relationship to reported past-year behavior, about one-half of all past-year drinker-drivers have made at least one drinking-driving trip within the past 30 days. Males are four times as likely as females to report past-month drinking and driving. Also consistent with the past-year measure, persons in their 20s are most likely to drive within two hours of drinking in the past month. The proportion of past-month drinker-drivers declines with age. [Figure 1-B].

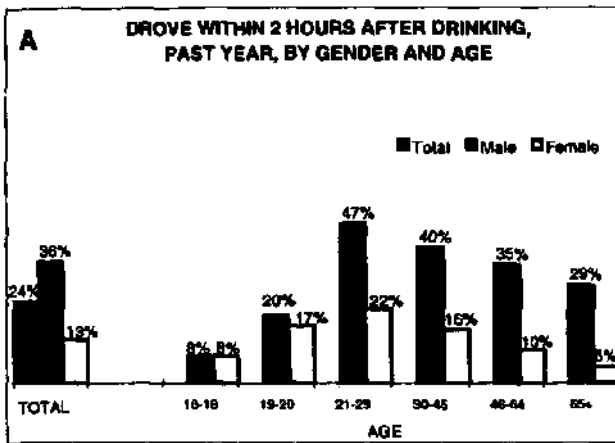
Frequency of Past-Year and Past-Month Drinking-Driving Trips

Those who have driven within two hours of drinking alcohol in the past year, report an average of about 11 such trips. Males are not only more likely to report drinking-driving behavior, but those who do drink and drive do so almost three times as often as do females. Males report an average of 13.4 drinking-driving trips as compared to 4.5 average trips by female drinker-drivers. [Figure 1-C].

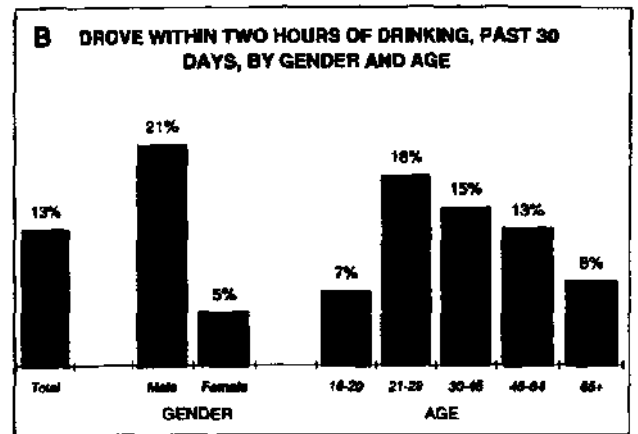
While adults in their 20s are the most likely to drink and drive, they report making an average of only about eight drinking-driving trips annually. In contrast, 30- to 45-year-olds report an average (mean) of nearly 14 yearly drinking-driving trips each. Minors report the fewest past-year drinking-driving trips reporting an average of three trips last year.

Past-year drinker-drivers report an average (mean) of 1.7 drinking-driving trips within the past 30 days. Males report making more than twice as many past-month drinking-driving trips as females. The average number of such trips generally increases with age, although past-year drinker-drivers age 46-64 prove to be an exception. [Figure 1-D].

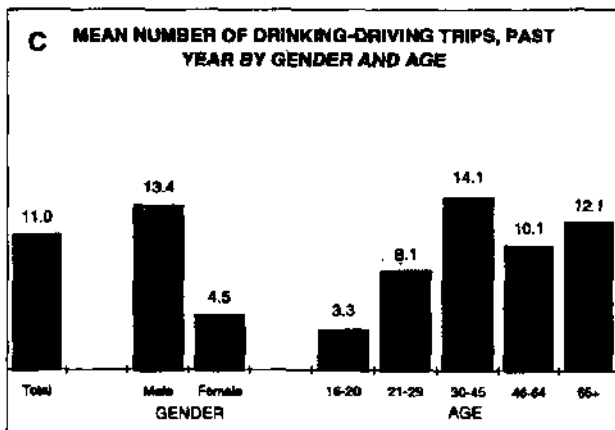
FIGURE 1: PAST-YEAR AND PAST-MONTH DRINKING AND DRIVING BEHAVIOR



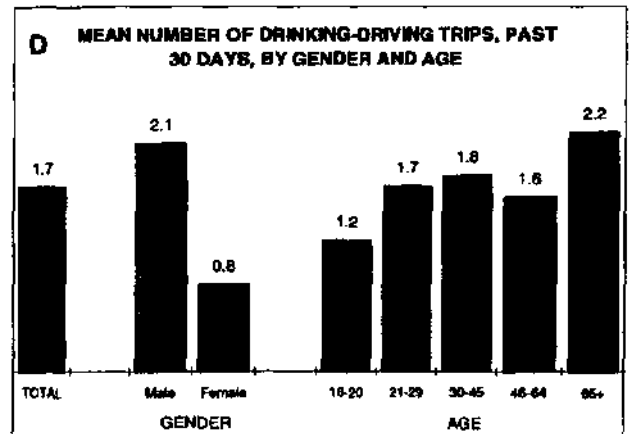
Qx: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: all respondents; n=4010]



Qx: In the past 30 days, how many times have you driven within two hours after drinking any alcohol? [Base: total respondents n=4010]



Qx: How many times in the past 12 months have you driven within two hours after drinking any alcohol? [Base: drove after drinking, past year*]



Qx: In the past 30 days, how many times have you driven within two hours after drinking any alcohol? [Base: drove after drinking, past year**]

** Sample bases for this page:

Total drove after drinking past year n=964

Male n=694, female n=270

16-20 n=34, 21-29 n=206, 30-45 n=392, 45-64 n=237, 65+ n=90

Estimates of Total Drinking-Driving Trips

Percent of Past-Month Drinking-Driving Trips by Age and Gender

Drinker-drivers in their 20s, while the most likely to report any past-month drinking-driving occasions, account for just 23% of all drinking-driving trips in an average month. Middle-age persons account for the lion's share of past-month drinking-driving trips, with those 30-45 making 39% and 46- to 64-year-olds making 24% of these trips. [Figure 2-A].

Males account for nearly seven out of every eight (86%) drinking-driving trips made each month. Females make about 14% of such trips [Figure 2-B].

Estimated Total Yearly Drinking-Driving Trips

An analysis was undertaken to estimate the total drinking-driving trips for the driving public based on self-reported data. For the purposes of this analysis alcohol-impaired driving was defined as any positive response to the question "In the PAST 30 DAYS how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?"

Calculation of Drinking-Driving Trips

For this analysis, the past 30-day measure was felt to be more reliable than the self-reported past 12-month measure. The total number of drinking-driving trips was calculated for each respondent by multiplying the self-reported number of trips in the past month by 12 to obtain a yearly total. The number of trips was summed across respondents and is reported by age and gender in Figure 2-C.

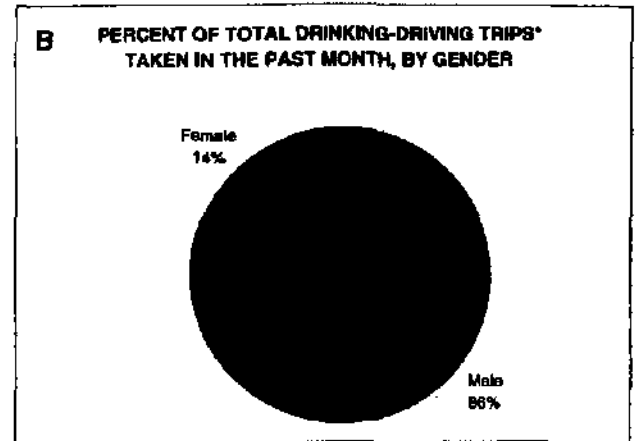
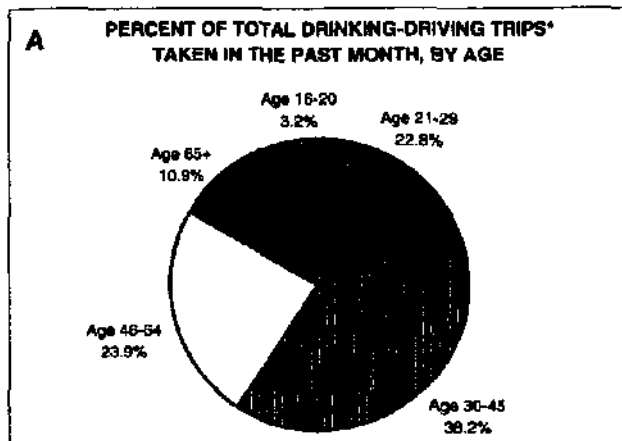
It is important to note that the total trip data presented here may not reflect the true number of alcohol-impaired driving trips made each year for a number of reasons: people may not be able to accurately recall the number of such trips, the previous month may not be indicative of the respondent's total year drinking-driving trips and people may under-report such behavior if they feel it is socially desirable to do so. This analysis is meant to provide an approximation of the range of possible drinking-driving trips by gender and age.

Overall, drinker-drivers made an estimated 811 million to 1.1 billion drinking-driving trips in the past year. Males made about 839 million (or 87%) of these total trips. Sixteen to 20-year-olds made between 9.8 and 53.0 million drinking-driving trips. The error range around these total yearly trip estimates by gender and age category is shown at the bottom of Figure 2.

Figure 2-D presents the proportion of total drinking-driving trips made by age and gender in relation to the proportion that each of these groups comprises in the total population. While 21-to 29-year-olds are just 16% of the driving age population, they make 23% of all drinking-driving trips. Those age 30-45 make up 32% of the driving age population, but account for 39% of drinking-driving trips.

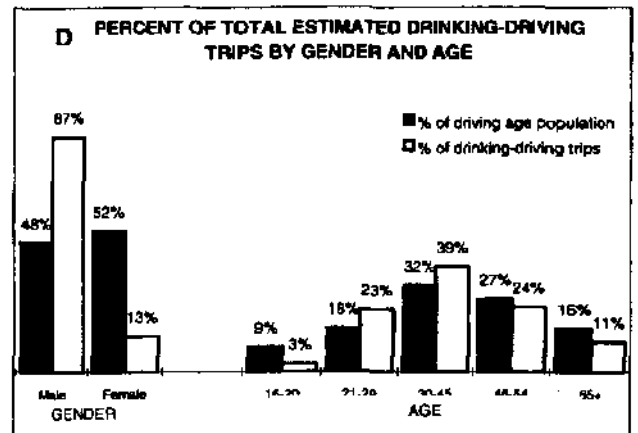
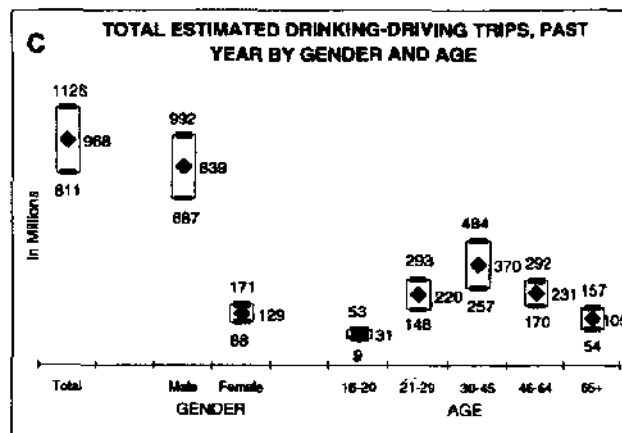
EDITOR'S NOTE: While past month trips were thought to be a more accurate representation than past 12 month recall, the reader is cautioned that a seasonal bias is possible in such reporting. If the past year measure were used rather than the past month (projected out for 12 months), the total number of trips would be approximately 853 million rather than 968 million trips.

FIGURE 2: NATIONAL ESTIMATES OF TOTAL DRINKING AND DRIVING TRIPS



Qx: in the past 30 days, how many times have you driven within two hours after drinking any alcohol?
 [Base: past year drinking-driving trips* (calculated by multiplying the mean reported number of trips by the number of respondents**)]

Qx: in the past 30 days, how many times have you driven within two hours after drinking any alcohol?
 [Base: past year drinking-driving trips* (calculated by multiplying the mean reported number of trips by the number of respondents**)]



* A drinking-driving "trip" is defined as an occasion when a driver drove within two hours after drinking any alcohol.

** Sample bases for this page:

Total drove after drinking past year n=964

Male n=694, female n=270

16-20 n=34, 21-29 n=206, 30-45 n=392, 45-64 n=237, 65+ n=90

Sampling error range for total number of trips by gender and age (in millions of trips):

Total ±158; male ±153; female ±41; 16-20 ±22; 21-29 ±73; 30-45 ±114; 46-64 ±61; 65+ ±51

Total drinking-driving trips were estimated by multiplying the number of drinking-driving trips in the past 30 days by 12 to yield a yearly estimate for each respondent. Total trips were summed across all respondents and data were projected to the total U.S. population age 16 or older.

Frequency and Amount of Drinking, Drinker-Drivers vs. Others Who Prink

Drinker-Drivers Vs. Other Drivers

Frequency of Drinking Past Year

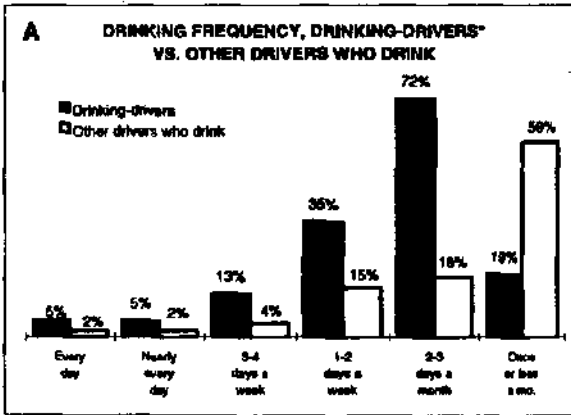
Those who report driving within two hours of drinking in the past year (drinker-drivers) consume alcoholic beverages significantly more often than do non-drinker-drivers. One in four (23%) drinker-drivers consumes alcoholic beverages three or more times a week, compared to just 8% of non-drinker-drivers who consume as often. [Figure 3-A].

Amount of Alcohol Consumed Per Sitting

Drinker-drivers not only drink more often than other drivers who do not drink and drive; they also consume significantly more alcohol per sitting. Drinking-drivers report consumption of an average of 3.3 drinks per sitting as compared to 2.5 drinks per sitting for other drivers who drink. [Figure 3-B].

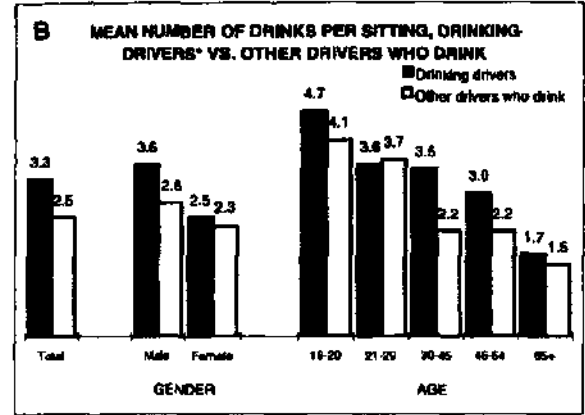
Males who drive within two hours of drinking alcohol are heavier drinkers than are other male drivers who drink, but do not drive. Male drinker-drivers average 3.6 drinks per sitting compared with 2.8 average drinks for those who do not drive after drinking. With the exception of people in their 20's, drinker-drivers of most ages consumer more per sitting than do other drivers who drink. [Figure 3-B].

FIGURE 3: FREQUENCY AND AMOUNT OF DRINKING FOR DRINKER-DRIVERS VS. OTHERS WHO DRINK



Qx: During the last 12 months, how often did you usually drink any alcoholic beverages, including beer, light beer, wine, wine coolers, or liquor? Would you say you usually drank alcoholic beverages...?

Qx: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? ["Yes" = drinking-drivers, n=9641 [Bases: specified in the chart]



Qx: When you drink [alcoholic beverage drunk most often] about how many [drinks] do you usually drink per sitting?

Qx: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? ["Yes" = drinking-drivers, n=9641 [Bases: specified in the chart]

Characteristics of the Most Recent Driving After Drinking Occasion

In order to obtain the most accurate estimates of self-reported drinking-driving occasions, it is important to ask about the experience individuals are most likely to remember. To this end, drinker-drivers were asked detailed questions about their "most recent" drinking-driving experience. Although the most recent occasion may not be reflective of the typical trip for any one individual, in aggregate, information on the most recent trip provides us with a representation of drinker-drivers as a whole.

Location of Most Recent Drinking Occasion

Restaurants are the origin for the largest proportion of drinking-driving trips, with 27% of drinker-drivers reporting drinking at a restaurant and then driving within two hours of that consumption. Bars and taverns, other people's homes and the drinker-driver's own home are the starting point for about one in five most recent drinking-driving trips. [Figure 4-A].

Length of Time Drank on Most Recent Occasion

On average, drinker-drivers consumed their alcoholic beverages over a period of nearly four hours on their most recent occasion of drinking-driving. Males consumed their drinks over a slightly longer period of time on average than did females (3.9 hours compared to 3.5 hours). The length of time one takes to consume one's drinks prior to a drinking-driving occasion increases with age, with drinker-drivers age 65 or older drinking over a period of nearly five hours. [Figure 4-B].

Time Between Last Drink and Driving Start on Most Recent Occasion

Drinker-drivers typically began driving within about 45 minutes of finishing their last drink. Females wait an average of about five minutes longer than do males before driving. Minors and persons over age 65 report the longest period between their last drink and the start of their driving trip, both age groups averaging about an hour wait. [Figure 4-C].

Self-Reported Status in Relation to Legal Limit on Most Recent Drinking-Driving Occasion

About one in ten past-year drinker-drivers perceive that they were over the legal limit for operating a motor vehicle the last time they drove after consuming alcohol. Perceived impairment decreased significantly with age. [Figure 4-D]. About 43% of those under the legal drinking age of 21 think that they were well over the limit on their last trip.

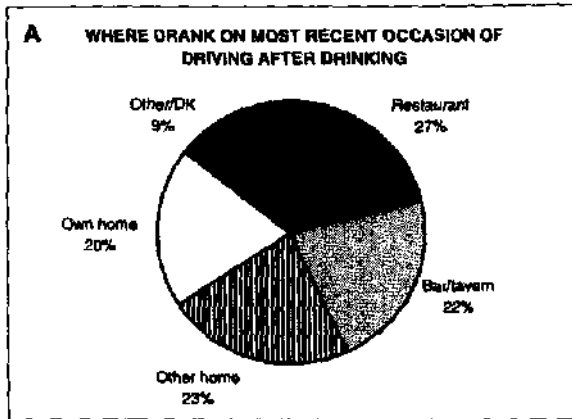
Miles Drove on Most Recent Occasion

Drinking-driving trips average about 10.4 miles from origin to destination. Nearly one in four trips are of one mile or less, while 22% are of 11 or more miles. [Figure 4-E].

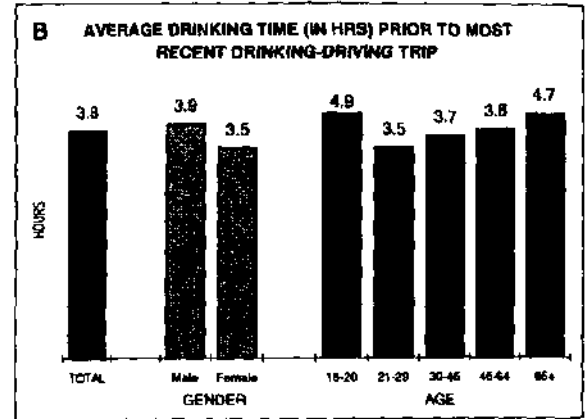
Number of Passengers on Most Recent Occasion

About 56% of drinker-drivers have other passengers in the car with them during these trips. Including those who drive alone and those who drive with passengers, drinker-drivers travel with an average of .79 passengers per trip. Minors (under age 21) average the most passengers during drinking-driving trips with an average of 1.1 passengers. The number of passengers on a drinking-driving trip has direct impact on the number of persons affected by drinking-driver trips. As this is a new question in 1997, it should be monitored in future study waves. [Figure 4-F].

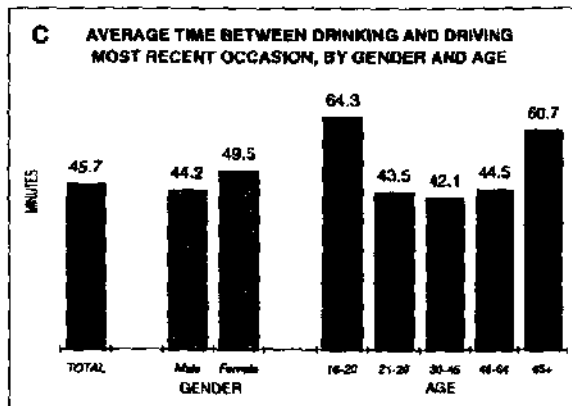
FIGURE 4: MOST RECENT DRIVING AFTER DRINKING OCCASION



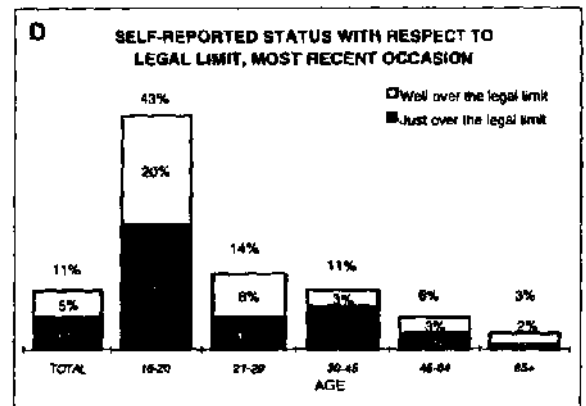
Qx: Where did you drink on that occasion? [Base: drove after drinking, past year]



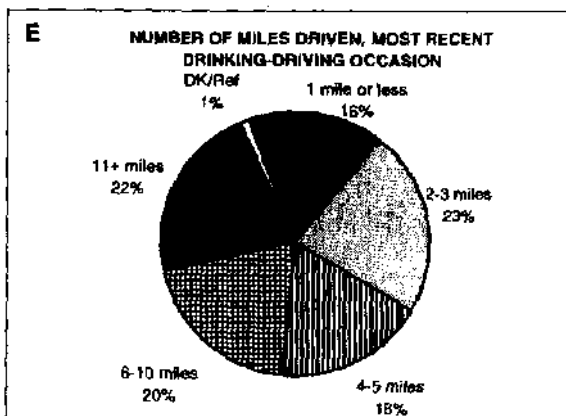
Qx: Over what length of time (in hours) did you have those drinks? [Base: drove after drinking, past year**]



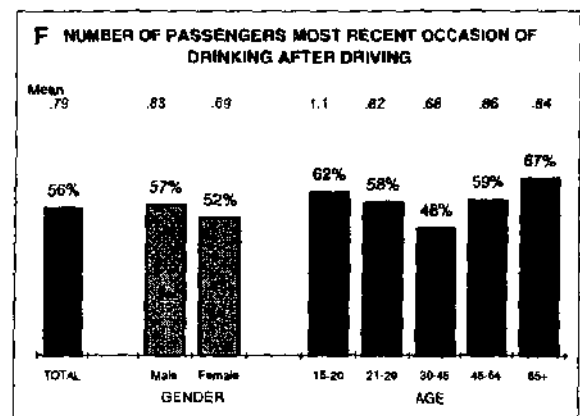
Qx: How long (in minutes) after your last drink did you start driving? [Base: drove after drinking, past year**]



Qx: On this most recent occasion, ... you were well below the limit for drinking and driving, just below, just over or well over the legal limit? [Base: drove after drinking, past year**]



Qx: About how many miles did you drive on this occasion? [Base: drove after drinking, past year**]



Qx: How many people, other than yourself, were in the vehicle with you? [Base: drove after drinking, past year**]

**Sample bases for this page:

Total drove after drinking 1+ time in past year n=914

Male n=615, female n=299

Age, 16-20 n=33, 21-29 n=191, 30-45 n=382, 46-64 n=235, 65+ n=70

Characteristics of the Most Recent Drinking-Driving Occasion (continued)

Number of Drinks on Most Recent Occasion

On average, drinker-drivers consumed about 2.5 alcoholic beverages on their most recent drinking-driving occasion. Males consumed slightly more drinks on average than did females (2.7 drinks compared to 2.2 drinks for females). The number of drinks consumed prior to a drinking-driving trip decreases steadily with age, with those over age 45 consuming two or fewer drinks on average. [Figure 5-A].

Number of Drinks by Those 16-20

While it may appear that younger drivers do not contribute greatly to the drinking-driving problem based solely on the number of trips they make [Figure 2-C], when the amount of alcohol consumed and the time period of consumption prior to driving are considered, it becomes more apparent why younger drivers appear as a problem in alcohol-related crashes. Those under age 21 drank an average of 4.6 drinks on their most recent drinking-driving occasion, while 21- to 29-year-olds report consumption of about 3.1 drinks. In contrast, those age 46 or older consumed an average of two or fewer drinks on their last drinking-driving occasion.

Estimated BAC Levels on Most Recent Occasion

To obtain impairment severity estimates of drinking-driving trips, Blood Alcohol Content (BAC) levels were estimated for the most recent drinking-driving occasion of each person who had driven within two hours of alcohol consumption in the past year, (see page 4).

The average calculated BAC level among past-year drinker-drivers was .03 for the most recent drinking-driving occasion. Males' and females* mean BAC was the same (.03) for the most recent trip. Average estimated BAC levels decline with age. BAC levels are highest among those age 16-20, with an average BAC among this group of .10.* [Figure 2-B].

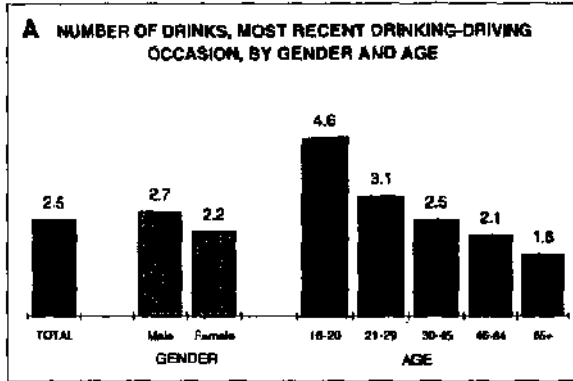
BAC levels are highest for persons who drank at a bar or tavern and then drove (.04 average) and for those who drank at a friend's home (BAC .03). [Figure 5-C].

Drinker-drivers generally underestimated their own BAC level in relation to the legal limit. Persons who deemed themselves to be "well over the legal limit" were estimated to have an average BAC of .11, whereas persons who felt they were just over the limit were at .06 and those who thought they were at or just below the limit were at .03. [Figure 5-D].

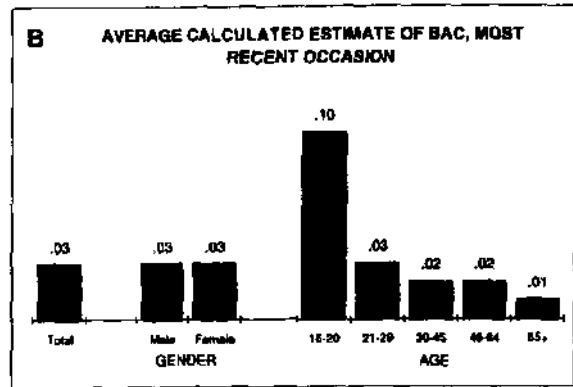
Overall, the vast majority (86%) of drinker-drivers are well below the legal BAC limit for adults when they drive within two hours of consuming alcohol. About one in ten (9%) drive with BAC levels between .05 and .079. About one in twenty (5%) drinker-drivers undertake these trips with a BAC at or above .08. [Figure 5-E].

*The sample size for 16- to 20-year-old drinker-drivers is small at just 34.

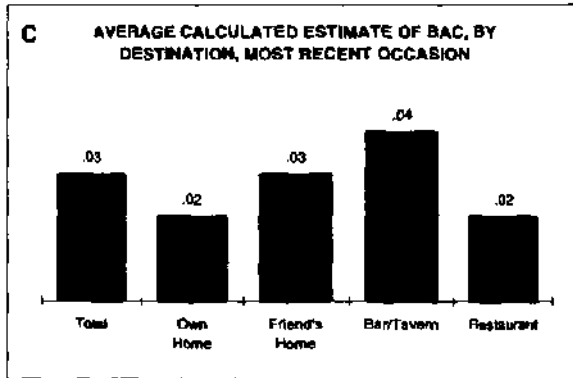
FIGURE 5: CALCULATED ESTIMATE OF BAC (BLOOD ALCOHOL CONTENT) FOR MOST RECENT DRINKING-DRIVING OCCASION



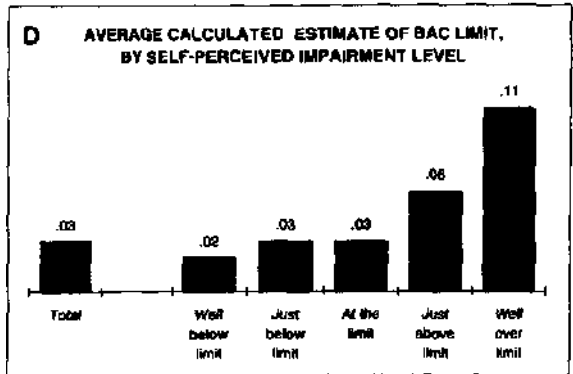
Qx: How many drinks did you have on that occasion? [Base: drove after drinking, past year**]



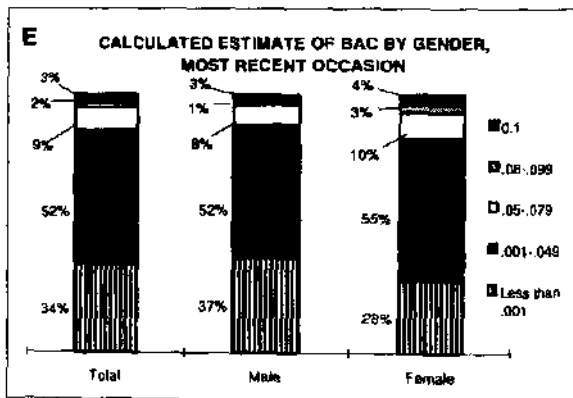
Qx: On this most recent occasion, ... how many drinks did you have? How long after your last drink did you start driving? Over what time period did you have those drinks? Gender, Age and Weight [Base: drove after drinking, past year**]



Qx: Where did you drink on that occasion? [Base: drove after drinking, past year**]



Qx: On this most recent occasion, were you well below the limit for drinking and driving, just below, just over or well over the legal limit? [Base: drove after drinking, past year**]



** Sample bases for this page:

Total drove after drinking past year n=964

Male n=694, female n=270

16-20 n=34, 21-29 n=206, 30-45 n=392, 46-64 n=237, 65+ n=90

BAG (blood alcohol concentration) calculated using NHTSA SAC estimation formula using gender, weight, number of drinks consumed, length of time drinking, and length of time between last drink and driving.

Estimated Total Drinking-Driving Trips by Calculated BAC Level

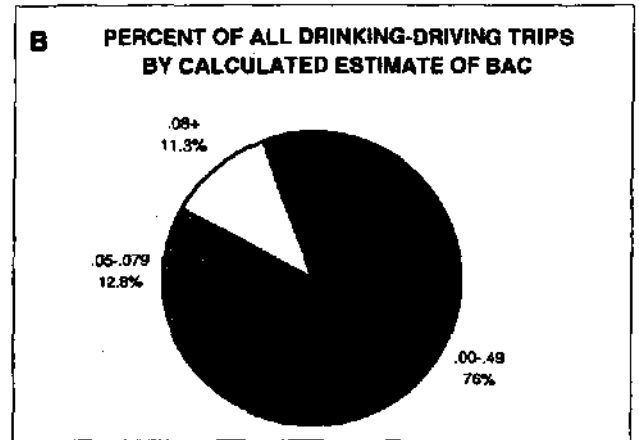
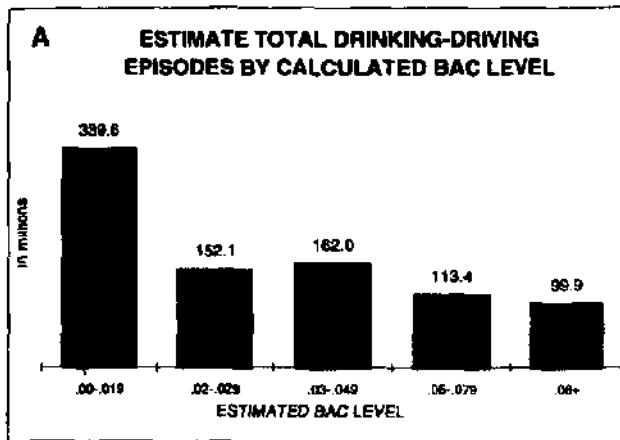
Total Drinking-Driving Trips by Estimated BAC

The vast majority of drinking-driving trips are made by persons with estimated BAC levels below .05. However, an estimated 100 million (± 65 million) drinking-driving trips were made in 1997 by drivers with estimated BAC levels of .08 or greater. An estimated 113 million (± 56 million) trips were made by drivers impaired at a BAC of .05 to .079. [Figure 6-A]. Again, these figures are estimates and offer an approximation of the magnitude of impaired-driving trips. The error range around the trip estimates for each BAC level appear at the bottom of Figure 6.

Percent of All Trips by Estimated BAC Level

While only about 5% of drinker-drivers operated a motor vehicle with a BAC level of .08 or higher, about one out of every ten drinking-driving trips is estimated to be made by a driver with a BAC level of .08 or greater. [Figure 6-B].

FIGURE 6: ESTIMATED TOTAL DRINKING-DRIVING TRIPS BY CALCULATED BAC LEVEL



BAC (blood alcohol concentration) calculated using NHTSA BAC estimation formula using gender, weight, number of drinks consumed, length of time drinking, and length of time between last drink and driving.

Sample bases for this page: BAC .00-.019 n=451, BAC .02-.029 n=114, BAC .03-.049 n=150, BAC .05-.079 n=79, BAC .08+ n=46.
 Error range for total number of trips by estimated BAC level (in millions of trips): BAC .00-.019 ±71, BAC .02-.029 ±53, BAC .03-.049 ±85, BAC .05-.079 ±55, BAC .08+ ±63.

Identifying Problem Drinkers

Defining CAGE Measures

A series of questions was asked of people who drank alcohol in the past year to help identify problem drinking. This series of four questions is represented by the acronym "CAGE" (Ewing, 1998) with each letter representing one of the four questions: "Have you felt you should cut down on your drinking?" ("C" for "cut down"); "Have people annoyed ("A") you by criticizing you about your drinking?"; "Have you felt bad or guilty ("G") about your drinking?"; "Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover?" ("E" for "eye-opener").

Differences by Gender and Age

Males are about twice as likely as females to say "yes" on each of the CAGE measures. About one in five males feel that they should cut down on their drinking, 7% are annoyed by others' criticism of their drinking, and 10% have felt bad or guilty about their drinking. Only 2% of the drinking public has had a drink first thing in the morning to steady their nerves or get rid of a hangover. [Figure 7-A].

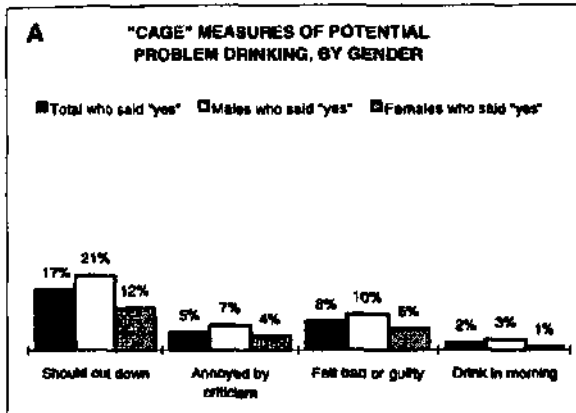
Those under age 19 are generally most likely to say yes to the CAGE measures, and agreement generally decreases with age. [Figure 7-B].

Identifying Heavy and Binge Drinkers

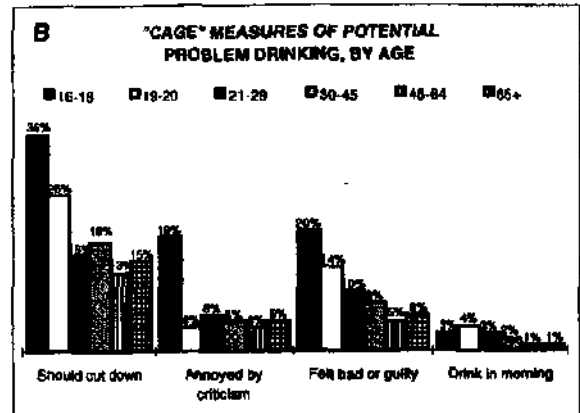
One in twenty (5%) persons of driving age has consumed eight or more drinks in a single day during a typical 28-day period. Males (8%) and persons under age 30 (11%) are the most likely to report this type of binge drinking. [Figure 7-C].

About 2% of those age 16 or older report consuming five or more drinks on four or more days of a typical 28-day period. Males (4%) and persons age 16-29 (5%) are twice as likely to report four or more days of heavy drinking. [Figure 7-D].

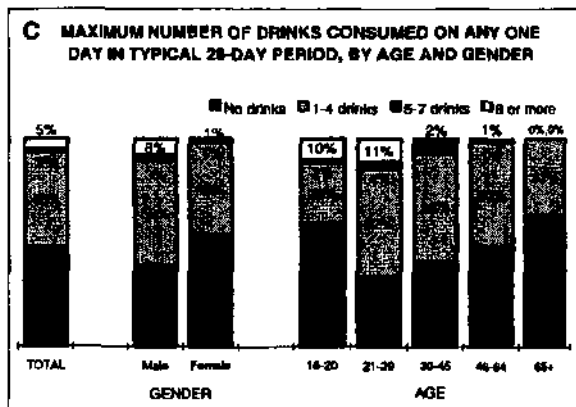
FIGURE 7: IDENTIFYING PROBLEM DRINKERS



Qx: Have you felt you should cut down on your drinking? ("C")
 Qx: Have people annoyed you by criticizing your drinking? ("A")
 Qx: Have you felt bad or guilty about your drinking? ("Q")
 Qx: Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover? ("E")
 [Base: Drank alcohol in past year, n=2581, male n=1368, female n=1213]



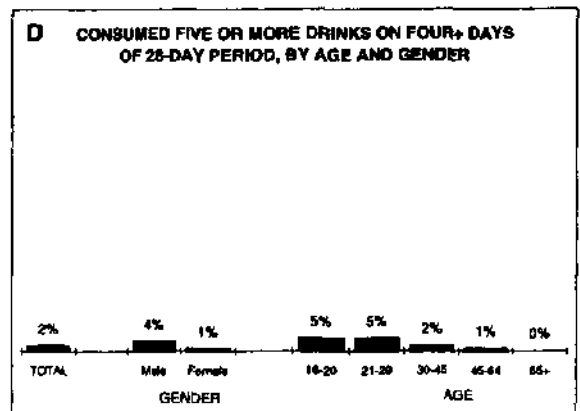
Qx: Have you felt you should cut down on your drinking? ("C")
 Qx: Have people annoyed you by criticizing your drinking? ("A")
 Qx: Have you felt bad or guilty about your drinking? ("Q")
 Qx: Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover? ("E")
 [Base: Drank alcohol in past year, total n=2581]



Qx: People often drink different amounts of alcohol depending on the time, place or occasion. On some days they may drink small amounts, on some days they may drink medium amounts, and on other days they may drink large amounts. Think about the days when you drank alcohol during a typical four-week period (28 days) in the past six months.

[Base: drank alcohol in past year; drinking-drivers n=964, other drinkers n=1617]

*Drinking-drivers: Drove within two hours after drinking in the past year.



Identifying Problem Drinkers (continued)

Defining Problem Drinkers

For this analysis "problem drinkers" were defined as expressing agreement ("yes") to two or more of the four CAGE measures, or having consumed five or more drinks on four or more days in a typical 28-day period, or consumed eight or more drinks (nine for males) on at least one day in a typical 28-day period.

Overall, about 17% of the drinking public age 16 or older can be classified as a "problem drinker." This is true of 21% of past year drinker-drivers and 8% of others who consume alcohol.

Three of four (74%) problem drinkers are male. While 21- to 29-year-olds make up 16% of the driving age public, they account for 29% of all problem drinkers. Those age 16-20 are also over-represented among problem drinkers. These youth are 9% of the driving age public, but 13% of problem drinkers. [Figure 8-A].

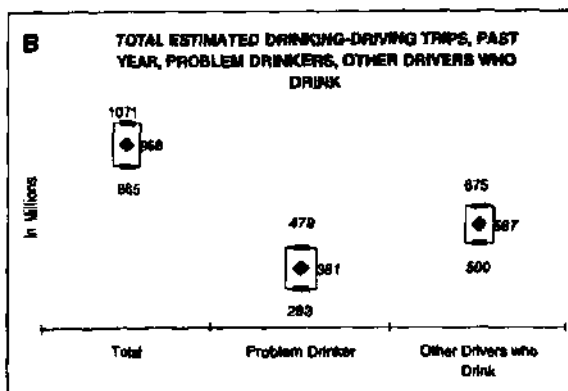
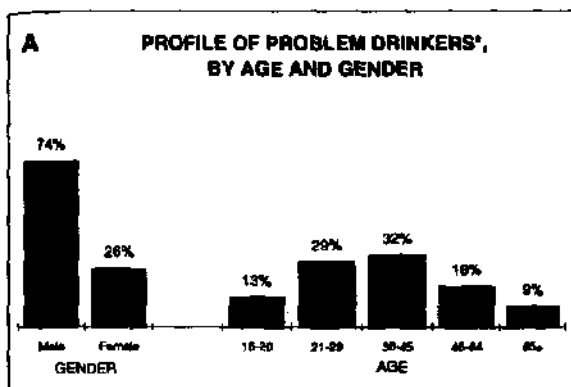
Problem Drinkers Contribution to Drinking-Driving Trips

While problem drinkers make up about 21 % of all past-year drinker-drivers, they account for about 40% of all trips (or between 283 and 479 million drinking-driving trips) in 1997. Other drivers who drink made between 500 and 675 million trips. [Figure 8-B].

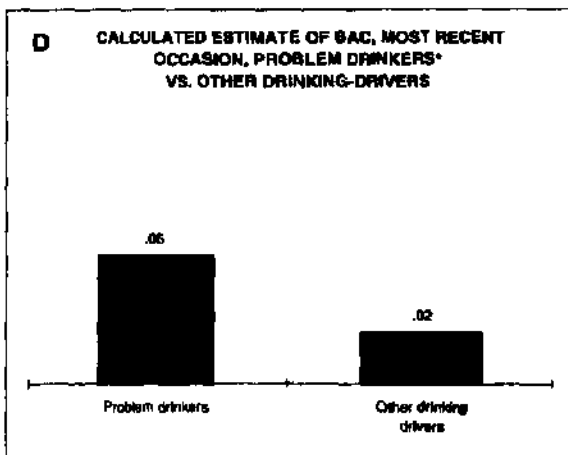
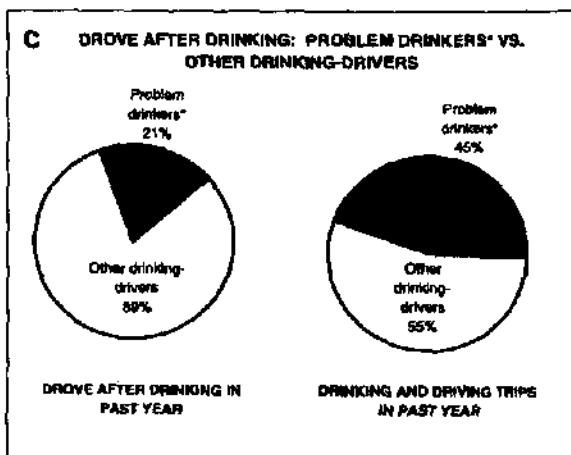
Estimated Calculated BAC Level of Problem Drinkers vs. Other Drinking Drivers

Problem drinkers are estimated to drive with BAC levels of more than twice that of other drinking-drivers. On their most recent drinking-driving trip, problem drinkers were estimated to have a calculated BAC level of about .05 as compared to a calculated BAC level of about .02 for other drivers who drink alcohol. [Figure 8-D].

FIGURE 8: PROBLEM DRINKERS



Total drinking-driving trips were estimated by multiplying the number of drinking-driving trips in the past 30 days by 12 to yield a yearly estimate for each respondent. Total trips were summed across all respondents and data were projected to the total U.S. population age 16 or older.



Qx: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? ("Yes" = drinking-drivers)
 Qx: About how many times in the past 12 months would you say that you have driven within two hours after drinking any alcohol?
 [each time = 1 "trip"]

* "Problem drinkers" are defined as those who meet at least ONE of the following three conditions:
 (a) said "yes" to two or more of the "CAGE" measures;
 (b) consumed five or more drinks on four or more days in a typical four-week period; or
 (c) for females, consumed eight or more drinks on a given day in the past four weeks, or for males, consumed nine or more drinks on a given day in the past four weeks.
 (Ewing, 1984; Skinner and Holt, 1987).

Riding with Unsafe Drivers

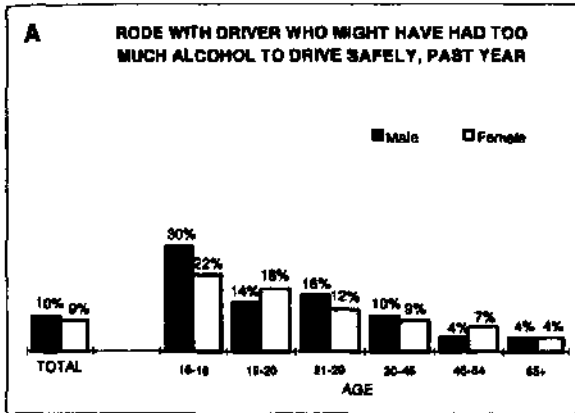
One of ten persons age 16 or older has ridden with a driver they thought may have consumed too much alcohol to drive safely. Equal proportions of males and females have ridden with a potentially unsafe driver. Those under age 20 are most likely to have been a passenger with someone they thought might have drunk too much to drive safely. Riding with a potentially unsafe driver decreases consistently with age. [Figure 9-A].

Drivers who drink report being the passenger in a vehicle with a driver who may have consumed too much alcohol to drive safely at a rate of three times that of other drivers who do not drink. [Figure 9-B). This is likely a function of drinking in groups (especially among younger drivers) and then designating one of those drinkers to drive.

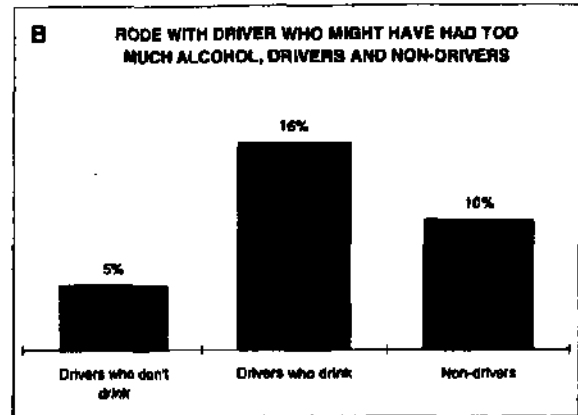
When Decided Driver Was Unsafe

Four in ten persons who have ridden with someone they thought may have drunk too much to drive safely made this assessment *before* they were riding in the vehicle, yet they decided to go with the driver anyway. [Figure 9-C]. Males and females, and persons of all age groups are equally likely to have made this decision prior to entering the vehicle. [Figure 9-D].

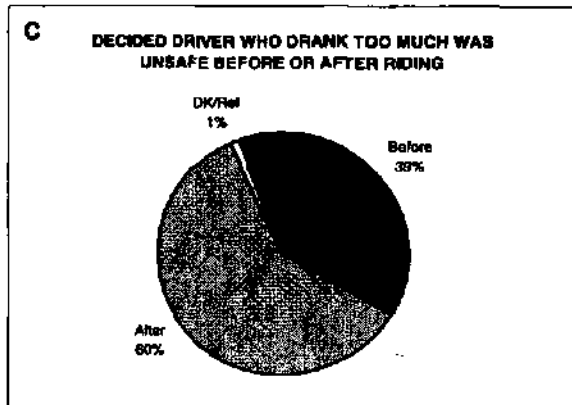
FIGURE 9: RIDING WITH UNSAFE DRIVERS



Qx: In the past 12 months, did you ever ride in a motor vehicle with a driver you thought might have consumed too much alcohol to drive safely? [Base: all respondents]

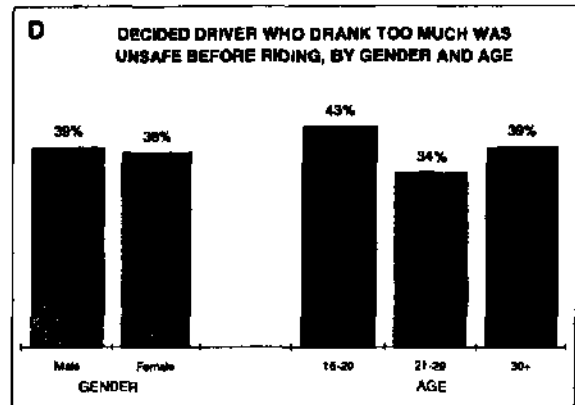


Qx: In the past 12 months, did you ever ride in a motor vehicle with a driver you thought might have consumed too much alcohol to drive safely? (Base: drivers who don't drink n=1251, drivers who drink n=964, non-drivers n=2851)



Qx: Please think back to the last time you rode with a driver you thought might have consumed too much alcohol to drive safely. Did you decide the driver was unsafe before or after you were riding in the vehicle?

[Base: rode with driver who may have consumed too much alcohol to drive safely, past year n=386]



Qx: Please think back to the last time you rode with a driver you thought might have consumed too much alcohol to drive safely. Did you decide the driver was unsafe before or after you were riding in the vehicle?

(Base: rode with driver who may have consumed too much alcohol to drive safely, past year, total n=386, male n=183, female=203)

* A drinking-driving "trip" is defined as an occasion when a driver drove within two hours after drinking any alcohol.

Chapter 2: Perceptions of Drinking and Driving as a Problem

In addition to measuring drinking and driving behaviors, this study examines the driving age public's perceptions on a number of topics related to drinking and driving. Changes in these perceptions can eventually lead to personal changes in drinking and driving behaviors (both improvements and declines) and in actions towards others. This section provides feedback on perceptions of the following issues:

- How much drinking and driving by others is a threat to self and family's personal safety
- The importance of reducing drinking and driving and support for zero tolerance
- Drinker-drivers as alcoholics or problem drinkers
- Non-problem drinkers as a serious highway safety problem
- Any amount of alcohol impairs driving
- People should not be allowed to drive if they drink any alcohol
- Personal responsibility for preventing others from driving after drinking
- The number of drinks a person could drink before he/she should not drive

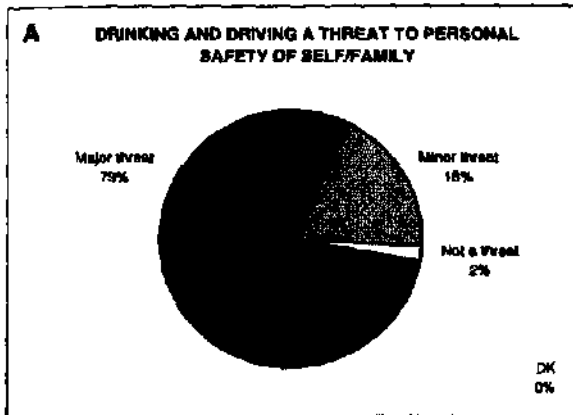
The Importance of Reducing Drinking and Driving and Support for Zero Tolerance

The driving age public sees drinking and driving as a serious problem that needs to be dealt with. Eight of ten (79%) persons see drinking and driving of others as a major threat to the personal safety of themselves and their family, and 86% say that it is "very important" that something be done to reduce drinking and driving. [Figures 10A and 10-B]. The majority of all age groups and both males and females holds these beliefs.

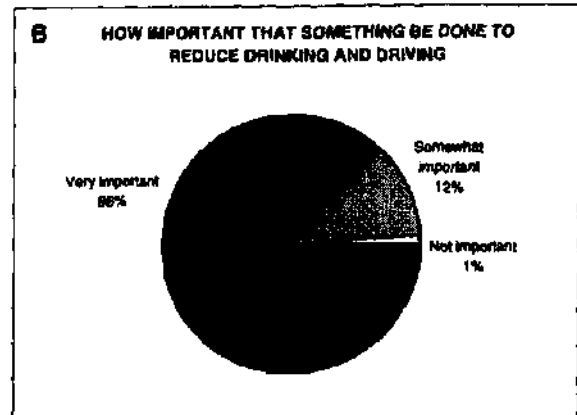
The majority of the driving age public is supportive of "zero tolerance" for drinking and driving. About 55% strongly agree that people should not be allowed to drive if they have consumed any alcohol at all, and an additional 21% somewhat agree with this statement. [Figure 10-C]. Past-year drinker-drivers are significantly less likely than others to agree with this "zero tolerance" perspective. [Figure 10-D].

It is useful to note that while 21% of drinker-drivers strongly agree that people should not be allowed to drive if they have consumed any alcohol, all of these persons report that they have done so in the past year.

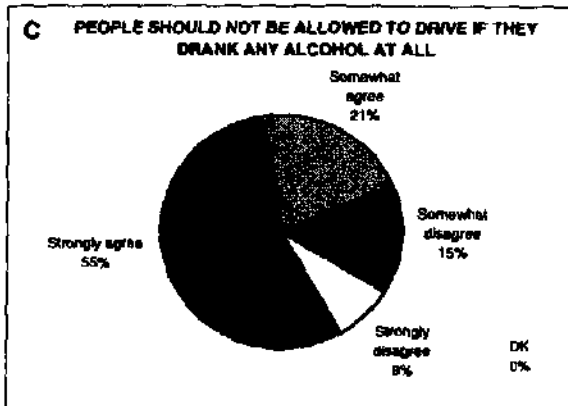
FIGURE 10: THE IMPORTANCE OF REDUCING DRINKING AND DRIVING AND SUPPORT FOR ZERO TOLERANCE



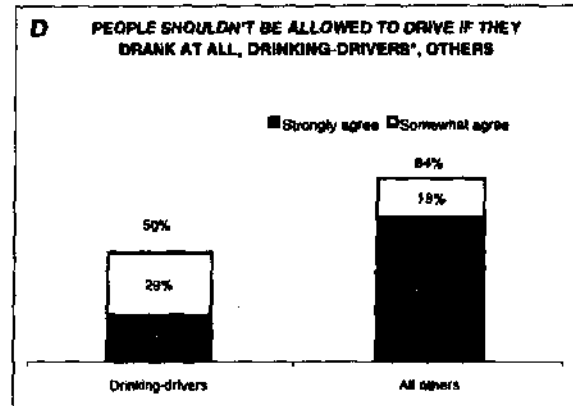
Qx: In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family? [Base: all respondents n=4010]



Qx: How important is it that something be done to reduce drinking and driving? [Base: all respondents n=4010]



Qx: For [each of] the following statements, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree. People should not be allowed to drive if they have been drinking any alcohol at all. [Base: all respondents n=4010]



Qx: For [each of] the following statements, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree. People shouldn't be allowed to drive if they have been drinking any alcohol at all. [Base: drinking-drivers n=964, others n=3046]

* Drinking-drivers: Drove within two hours after drinking in the past year.

Beliefs About Drinking and Driving

Respondents were asked to rate their agreement on a series of five questions regarding drinking and driving. These items include:

- Most people who drive after drinking too much alcohol are problem drinkers or alcoholics
- Drinking and driving by people who are not problem drinkers is a serious highway safety problem
- Scientific evidence has shown that any amount of alcohol impairs driving
- People should not be allowed to drive if they have been drinking any alcohol at all
- I should prevent someone I know from driving when I see they have had too much to drink

More than one-half (59%) of the driving age public agree that most people who drive after drinking too much alcohol are alcoholics or problem drinkers. [Figure 11-A]. In contrast, however, about 21% of drinking-drivers can be classified as "problem-drinkers" [Figure 8].

The overwhelming majority also see that drinking-driving occurrences by those who are not "problem drinkers" or alcoholics is a serious highway safety problem. [Figure 11-B].

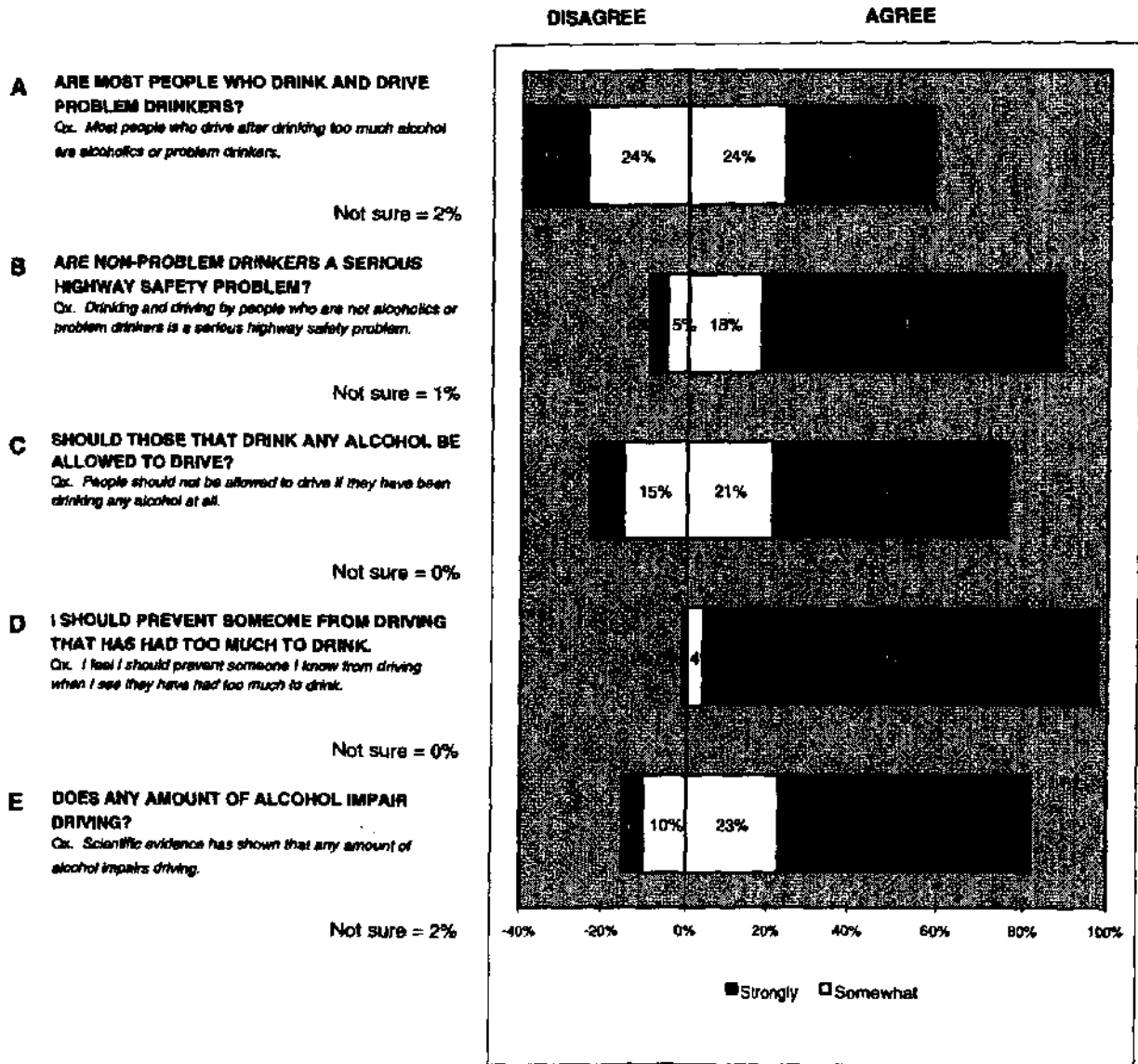
While "problem-drinkers" do account for more than their "fair share" of drinking-driving trips (they account for 21% of drinking-drivers, but for 40% of drinking-driving trips), and they pose a relatively greater threat given their average calculated BAC level, non-problem-drinkers still make more than one-half of all drinking-driving trips [Figure 8-B].

Eight in ten (82%) persons age 16 or older believe that scientific evidence has shown that any amount of alcohol impairs driving. [Figure 11-E]. Consistent with this perception, more than three-quarters (76%) feel that people should not be allowed to drive if they have been drinking any alcohol at all. [Figure 11 -C].

Regarding personal responsibility for others, virtually all (98%) agree that they should prevent someone they know from driving when they feel that person has had too much to drink. [Figure 11-D]

FIGURE 11: BELIEFS ABOUT DRINKING AND DRIVING

Qx: For each of the following statements, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree, [Base: all respondents]



Number of Drinks Before One Should Not Drive

Drivers who drink were asked to estimate the number of alcoholic beverages they could drink in two hours to reach the point where they should not drive. About two-thirds of drivers who consume alcohol feel that they should not drive if they have had two or fewer drinks within a two-hour period. More than one-third (36%), place their personal limit (after which they should not drive) at one or fewer drinks. [Figure 12-A]. The average 170-pound male would be at about a .03 BAC after consuming 2 drinks within two hours.

Differences By Gender and Age

Male drivers under age 20 who drink alcohol perceive their personal limit to be much higher than do older adults or their female counterparts. Males under age 20 say they could drink up to an average of about four drinks within a two-hour period before they reach the level at which they should not drive. In contrast, older males generally consider their safe limit to be about 2.5 drinks, while females put their limit at fewer than two drinks on average. [Figure 12-B].

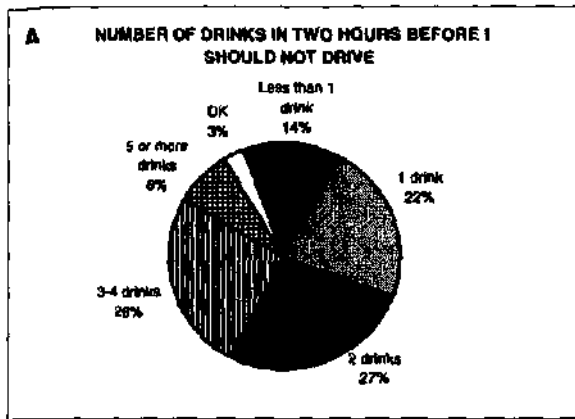
BAC Equivalents to Personal Limits by Age and Gender

When these perceived self-limits are viewed in terms of the estimated resulting BAC level if a person of average weight for that gender and age group drank the reported number of drinks, those under age 21 would be near a BAC level of .06. This is true for both males and females under age 21 [Figure 12-C]. Older persons perceive their personal limit of alcohol before they should not drive at a level that would put them at a BAC level of .03-.04 on average.

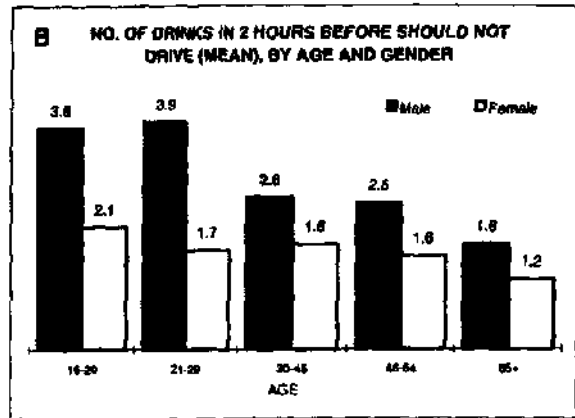
Drinker-Drivers vs. Other Drivers Who Drink

Drinker-drivers feel they can drink up to about three drinks in two hours before they should not drive. Other drivers who drink feel their safety limit is about one-third less than that of drinker-drivers, or about two alcoholic drinks. [Figure 12-D].

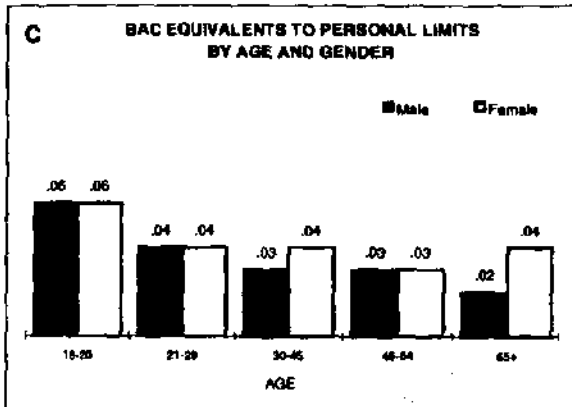
FIGURE 12: NUMBER OF DRINKS BEFORE ONE SHOULD NOT DRIVE



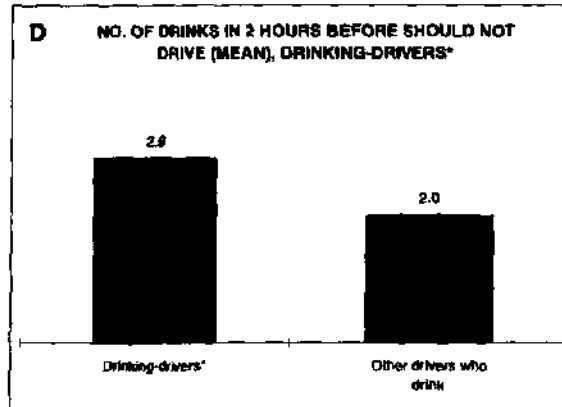
Qx: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before you should not drive? [Base: drivers who drink*]



Qx: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before you should not drive? [Base: drivers who drink**]



Qx: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before you should not drive? (BAC level was calculated using average reported personal limit and average body weight for each age and gender category) [Base: drivers who drink*]



Qx: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before you should not drive? [Base: drinking-drivers n=964, other drivers who drink n=1487]

* Drinking-drivers: Drove within two hours after drinking in the past year.

** Sample bases for this page: drivers who drink, total n=2451

Male 16-20 n=70, 21-29 n=244, 30-45 n=462, 46-64 n=320, 65+ n=130

Female 16-20 n=67, 21-29 n=205, 30-45 n=524, 46-64 n=323, 65+ n=117

Chapter 3; Prevention and intervention to Reduce Drinking and Driving

This section considers actions people can take to reduce drinking and driving trips for themselves and others. Drinking-driving trips can be reduced through several methods, including prevention actions before an occasion that averts planned drivers from drinking alcoholic beverages at the event, and prevention actions to avert planned drinkers from driving. Such trips can also be reduced through the intervention actions by those who suspect that another person has already consumed too much alcohol to drive safely and halting the unsafe driving behavior.

Specifically, this section covers the following topics:

- Personal actions to prevent drinking and driving
- Actions to avoid driving after consuming too much alcohol to drive safely
- Planning/actions as host of social event to prevent guests from driving home impaired
- Use of designated drivers
- Intervention with friends who may not be safe to drive

Actions to Reduce Drinking and Driving

Several strategies are open to drivers who drink to avoid drinking and driving situations. They can avoid attending an event altogether, decide to go to the event but not drink, make alternate transportation arrangements ahead of time to avoid driving, or go to an event and drink but decide not to drive afterwards.

All Drivers Who Drink

The most common proactive personal strategy to avoid drinking and driving is to attend a planned event where alcohol was present but not drink at the event. Six in ten drivers who drink used this method at least once in the past year. [Figure 13-A].

Another common proactive strategy used by more than one-third of drivers who drink is to make alternate travel arrangements ahead of time to avoid drinking and driving after the event. [Figure 13-B].

The least used proactive prevention strategy is to avoid attending an event altogether because the person did not want to drive after drinking. One in four drivers who drink cites use of this strategy in the past year. [Figure 13-C].

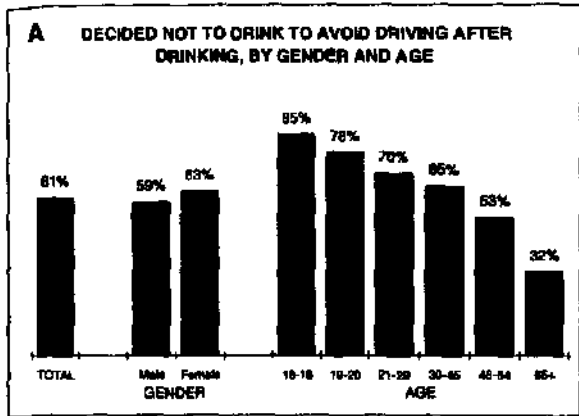
A common reactive prevention practice is to attend an event, consume alcohol and then decide not to drive afterwards. One in four drivers who drink take this strategy. [Figure 13-D].

Strategies Used by Gender and Age

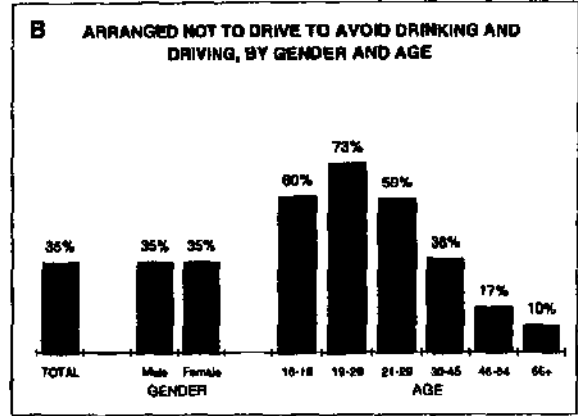
There are few substantial differences in use of strategies to avoid drinking and driving trips between males and females. Males are slightly more likely to report avoiding an event altogether and more likely to drive to an event, drink and then decide to not drive afterward.

Drivers age 20 and younger that drink report the greatest use of all four personal strategies to avoid drinking and driving occasions. Use of strategies consistently decreases with age. [Figures 13-A-D]. This pattern is consistent with the decline of the percent of the persons who drink and drive and of the average number of drinks consumed by age.

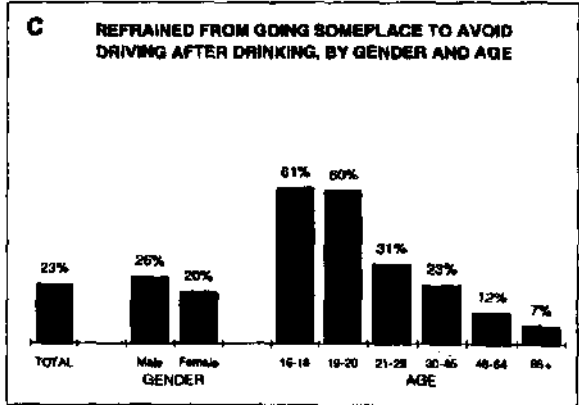
FIGURE 13: ACTIONS TO AVOID DRINKING AND DRIVING



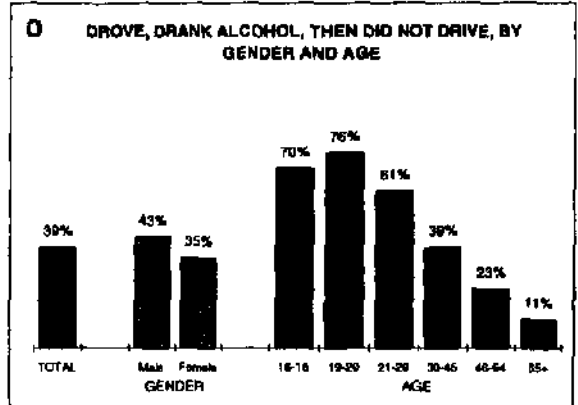
Qx: In the past year, did you ever go someplace where alcohol was present, but decided not to drink any alcohol because you did not want to drive after drinking? [Base: drivers who drink**]



Qx: In the past year, did you make arrangements ahead of time not to drive to a social event because you wanted to avoid driving after drinking? [Base: drivers who drink**]



Qx: In the past year, did you ever decide not to go someplace because you did not want to drive after drinking? [Base: drivers who drink**]



Qx: In the past year, did you ever drive someplace, drink alcohol, and then not drive afterward because you did not want to drink and drive? [Base: drivers who drink**]

* Drinking-drivers: Drove within two hours after drinking in the past year.

** Sample bases for this page: drivers who drink, total n=2451

Male 16-20 n=70, 21-29 n=244, 30-45 n=462, 46-54 n=320, 65+ n=130

Female 16-20 n=67, 21-29 n=205, 30-45 n=524, 46-54 n=323, 65+ n=117

Avoided Driving After Drinking Too Much

Drinker-Drivers Vs. Other Drivers Who Drink

Almost half of all past-year drinker-drivers have avoided driving a motor vehicle at least once because they felt they may have drunk too much to drive safely. This includes two-thirds of problem-drinkers and more than four in ten non-problem drinker-drivers. In contrast, just over one-third of other drivers who drink have avoided driving. [Figure 14-A].

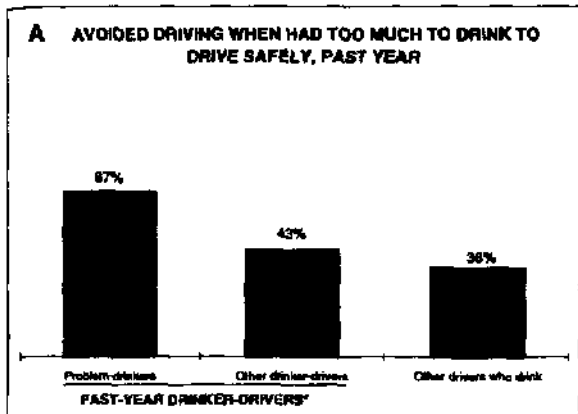
Gender and Age Differences

Significantly more males than females have deliberately avoided driving when they thought they had too much to drink. This pattern holds among males and females in all age categories except those age 19-20, where females are more likely to have avoided driving after drinking. Avoidance of driving after thinking one had drunk too much decreases consistently with age. [Figure 14-B].

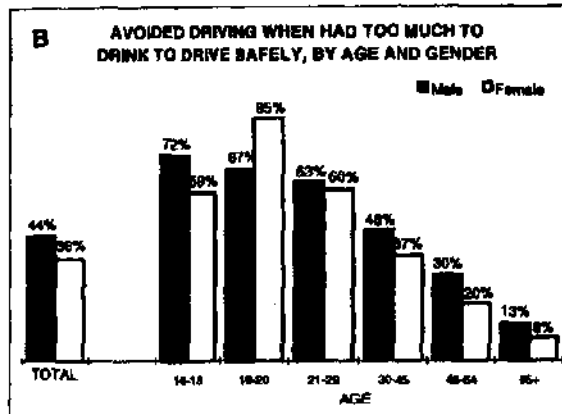
Actions to Avoid Driving After Drinking Too Much

Six in ten of those who avoided driving after drinking too much, did so by riding with another driver. About 12% stayed the night to avoid driving after drinking. [Figure 14-C]. This action was used by about 25% of those under age 21, and decreases steadily with age. [Figure 14-D].

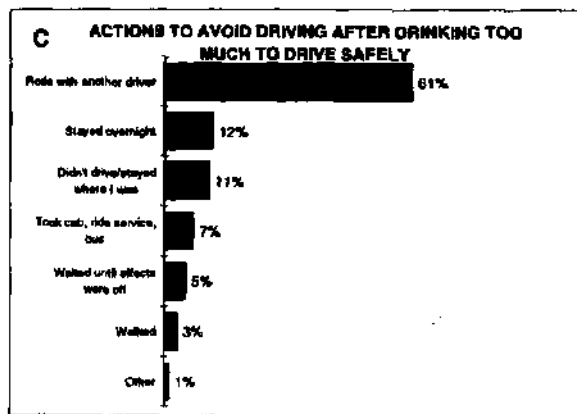
FIGURE 14: AVOIDED DRIVING AFTER DRINKING TOO MUCH



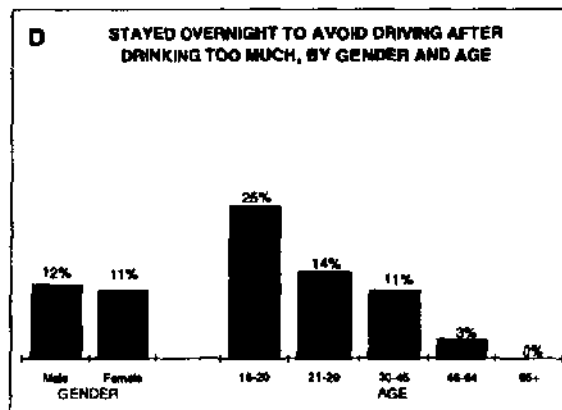
Qx: In the past 12 months, have you ever deliberately avoided driving a motor vehicle because you felt you probably had too much to drink to drive safely? [Base: problem-drinkers n=200, other drinker-drivers n=764, other drivers who drink n=1487]



Qx: In the past 12 months, have you ever deliberately avoided driving a motor vehicle because you felt you probably had too much to drink to drive safely? [Base: drivers who drink, total n=2451]

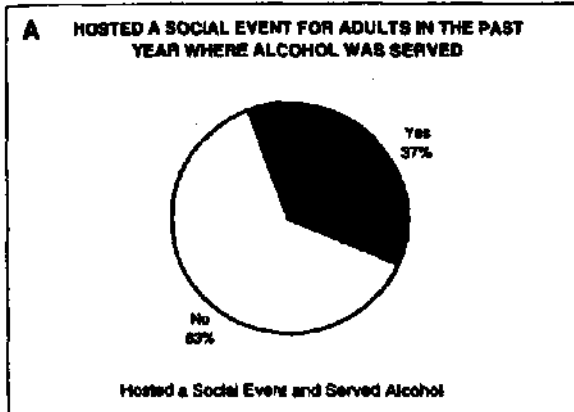


Qx: On the most recent time that you deliberately avoided driving after drinking, how did you do it? [Base: avoided driving after drinking, past year, total n=345]

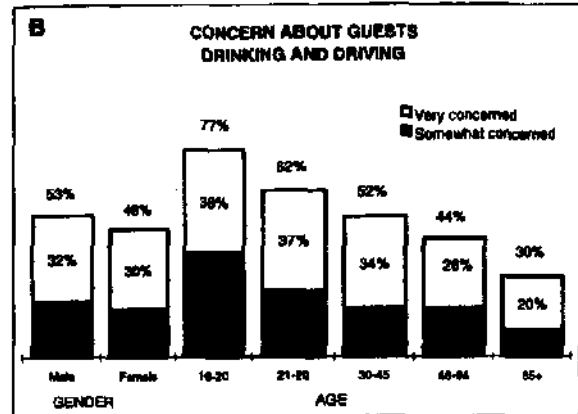


Qx: On the most recent time that you deliberately avoided driving after drinking, how did you do it? [Base: avoided driving after drinking, past year n=345]

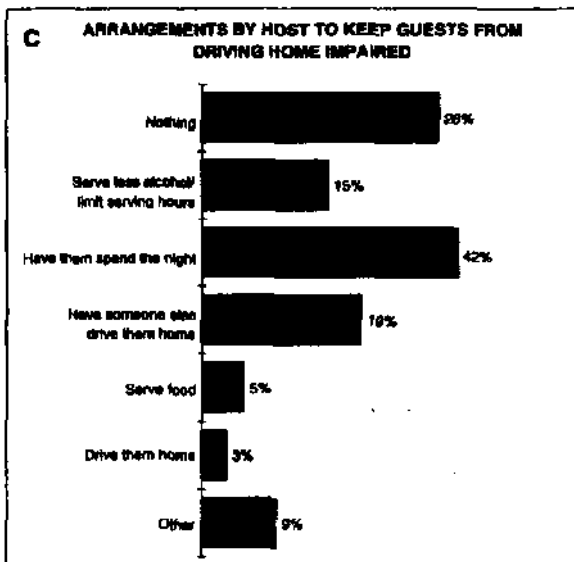
FIGURE 15: CONCERNS AND ACTIONS BY HOSTS TO PREVENT GUESTS FROM DRIVING IMPAIRED



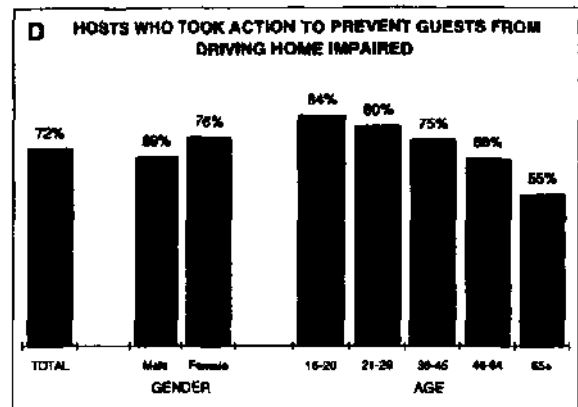
Qx: Have you hosted a social event in the past year for adults in which you made alcoholic beverages available? [Base: all respondents n=4010]



Qx: Thinking about the most recent event you hosted where you made alcohol available, how concerned were you about having guests from your party driving home impaired? [Base: hosted a social event in past year and served alcohol n=1459]



Qx: What, if anything, did you do to keep guests from driving home impaired? [Base: hosted a social event in past year and served alcohol n=1469]



Qx: What, if anything, did you do to keep guests from driving home impaired? [Base: hosted a social event in past year and served alcohol n=1459, male n=670, female n=789, 16-20 n=64, 21-29 n=266, 30-45 n=576, 46-64 n=408, 65+ n=142]

Designated Drivers

Riding With a Designated Driver

One-third (33%) of all persons of driving age have ridden with a designated driver in the past year. Riding with a designated driver is slightly more common among males than females, and is most prevalent among those under age 30. [Figure 16-A]. The average person age 16 or older has ridden with a designated driver 2.5 times in the past year, with those in their late teens and twenties reporting an average of about five such past-year trips. [Figure 16-B].

Being the Designated Driver

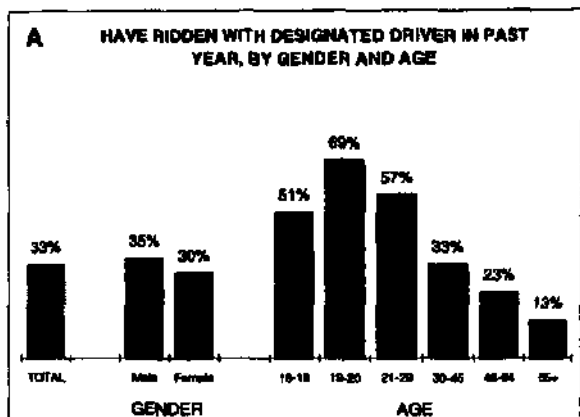
Three of ten drivers have acted as the designated driver for others in the past year. Those age 19-20 were twice as likely to have been a designated driver as were drivers overall. The practice of acting as the designated driver decreases with age. [Figure 16-C].

Number of Drinks for Designated Drivers

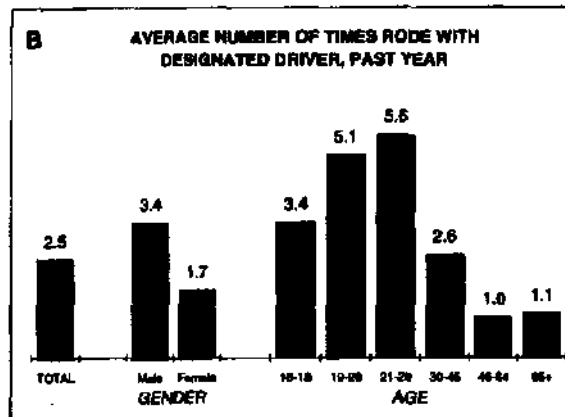
On average, past-year designated drivers average less than one-half of a drink before driving, with 83% reporting less than one drink consumed. [Figure 16-D].

The actual experience with designated drivers closely matches the public perception of the number of allowable drinks for a designated driver. Two-thirds feel that a designated driver should be allowed less than one drink. An additional 16% feel that 1 drink is acceptable for a designated driver. [Figure 16-E].

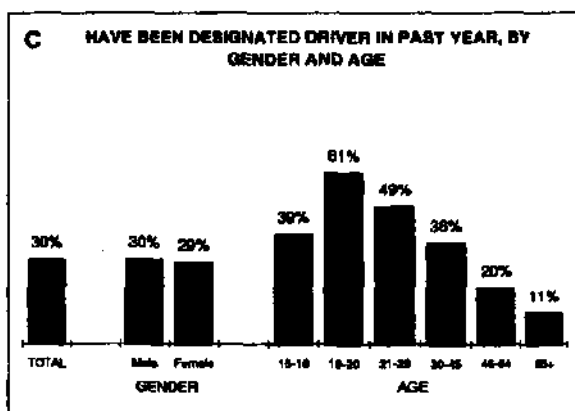
FIGURE 16: DESIGNATED DRIVERS



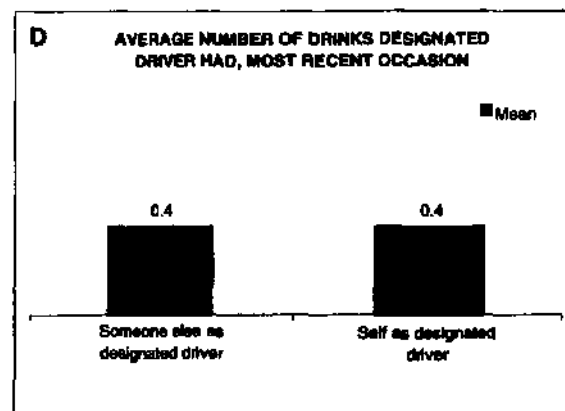
Qx: In the past year, how many times have you ridden with someone else who agreed to be the designated driver? [Base: all respondents**]



Qx: In the past year, how many times have you ridden with someone else who had agreed to be the designated driver? [Base: all respondents**]

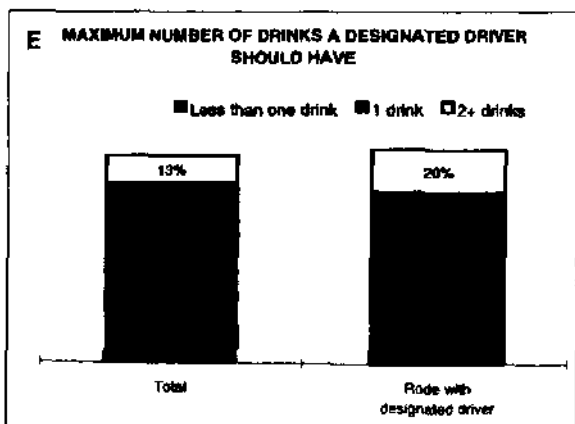


Qx: In the past 12 months, have you ever been the designated driver when driving with others? [Base: drivers]



Qx: On the most recent occasion that you rode somewhere with a designated driver, how many drinks did the designated driver have before driving, if any? [Base: rode with designated driver past year, n=1271]

Qx: On the most recent occasion that you were the designated driver, how many drinks did you have before driving, if any? [Base: have been designated driver past year n=1583]



Qx: What is the maximum number of drinks a person should have if he or she is the designated driver? [Base: drivers, total n=3725, rode with designated driver n=1271]

**Sample bases for this page:

Total drove after drinking past year n=964

Male n=694, female n= 270

18-20 n=34, 21-29 n=206, 30-45 n=392, 46-64 n=37 65+ n=90

Perceptions of Personal Responsibility to Intervene

About 94% of those age 16 or older strongly agree that they should prevent someone they know from driving when they see they have had too much to drink. An additional 4% somewhat agree with this statement. This indicates a high prevalence of personal responsibility to intervene to reduce impaired-driving. [Figure 17-A].

Females are slightly more likely than males of all age groups to feel this sense of personal responsibility. [Figure 17-B].

More than 80% of those who strongly agree that they should try to prevent a friend from driving impaired actually took such preventive action in the past year when faced with a potentially impaired friend, about 74% of those who "somewhat agree" attempted to intervene. [Figure 17-C].

Intervention with Friends Who May Not Be Safe to Drive

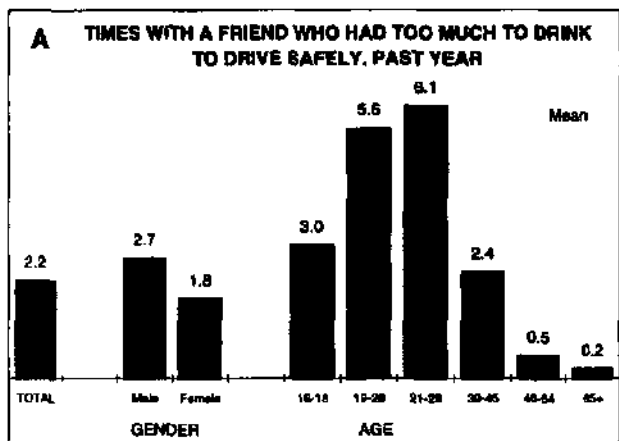
Been With Friend Who May Have Drank Too Much To Drive Safely

One in three persons age 16 or older have been in a situation of being with a friend who had too much to drink to drive safely. They report an average of 2.2 such experiences. This circumstance has occurred much more often for those under age 30, with the greatest exposure occurring for 19- to 20-year-olds. Those age 19-29 report an average of about six occurrences in the past year of being with a friend who may have consumed too much to drive safely. Older adults are much less likely to report at least one such occurrence. [Figures 18-A and 18-B]

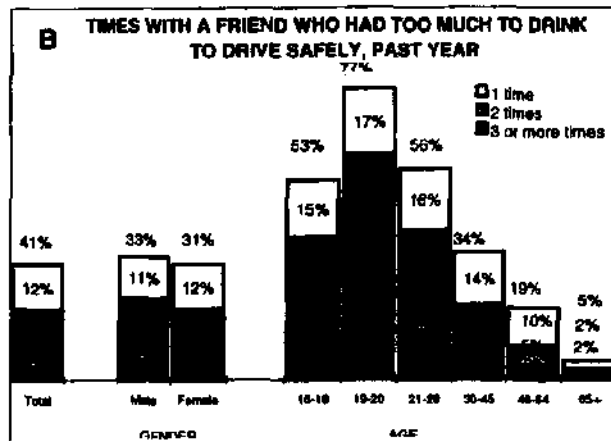
Intervention With Friend Who May Have Drank Too Much to Drive Safely

Reported beliefs of the personal responsibility of intervention [Figure 17-A] carry-through to action. Eighty-three percent (83%) of those who were with a friend who may have had too much to drink to drive safely, tried to stop that friend from driving on the most recent occasion. Overall, friends attempted to intervene about 82% of the time, with intervention about equally likely among those of all ages. In nearly 80% of the cases where intervention took place, the potentially impaired friend did not drive. [Figures 18-C and 18-D].

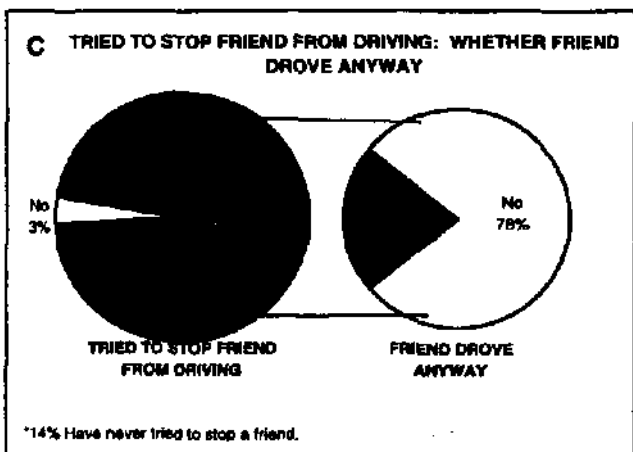
FIGURE 18: INTERVENTION WITH FRIENDS WHO MAY NOT BE SAFE TO DRIVE



Qx: In Me last year, how many times were you in a situation where you were with a friend who had too much to drink to drive safely? [Base: all respondents**]



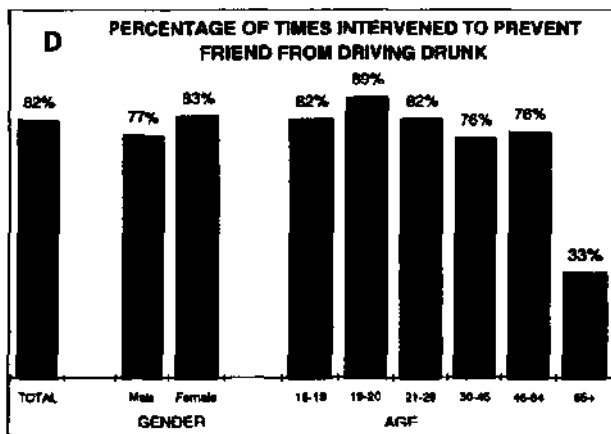
Qx: In the last year, how many times were you in a situation where you were with a friend who had too much to drink to drive safely? [Base: all respondents"]



Qx: Think of the most recent time you were in this situation. Did you do something to stop them from driving?

[Base: with a friend who had too much to drink to drive safely, one or more times in past year n=1242]

Qx: Did they drive anyway? [Base: tried to stop friend from driving n=1018]



Qx: How many of those times did you do something to stop them from driving?

[Percentages were computed by dividing the number of times intervened by the number of times in the situation for each respondent and then calculating averages (means) of these quotients for all respondents in the specified demographic category, total n=1242]

**Sample bases for this page:
 Total all respondents n=4010
 Male n=1734, female n=2276
 16-20 n=282, 21-29 n=588, 30-45 n=1412, 46-64 n=1076, 65+ n=629

Chapter 4: Enforcement of Drinking and Driving Laws

For law enforcement to be effective as a preventive measure, those who would potentially exhibit the undesired behavior must believe the threat of detection and enforcement. This section examines the driving age public's experiences with, and perceptions of, enforcement and punishment for drinking and driving violations.

Specifically it covers the following topics:

- Past 12-month drinking and driving violations and arrests
- Perceptions of the being stopped by police if drinking and driving
- Perceptions of punishments for drinking-driving violations
- Attitudes about current drinking-driving violation penalties
- Perceptions and use of sobriety checkpoints

Drinking and Driving Violations and Arrests

Stopped/Arrested for Drinking and Driving Violation

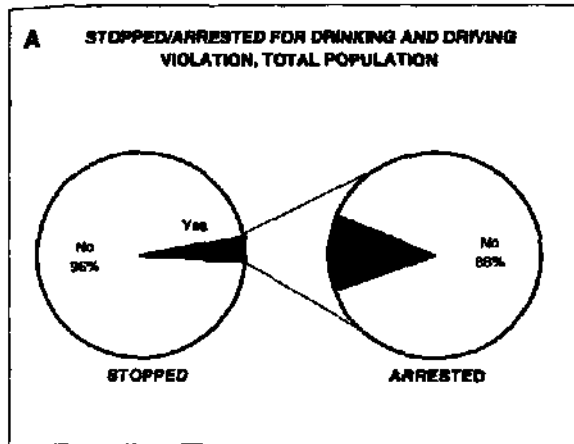
Approximately 4% of the driving age public report being stopped by the police for suspicion of drinking and driving. [Figure 19-A]. Males are more than four times as likely as females to be stopped for suspected drinking and driving violations, although the gender gap is much smaller for minors under age 21. [Figure 19-C],

Of the 4% of those stopped by the law for suspicion of drinking and driving, one in eight (12%) were arrested for a drinking-driving violation. [Figure 19-A]. Overall, this translates to about 1 % of all persons of driving age being arrested. Young males report the greatest experience of arrests for drinking-driving violations. [Figure 19-D].

Drinker-Drivers and Violations

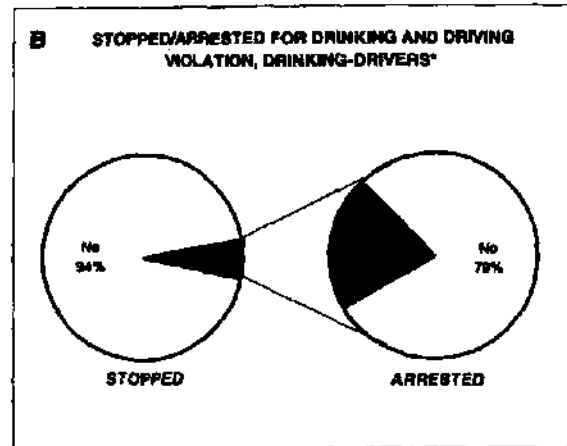
More than one in twenty (6%) drinker-drivers have been stopped in the past year for suspicion of a drinking and driving violation. This is twice that of the other persons of the driving age public. Among those stopped by police, past-year drinker-drivers are three times as likely as non-drinker-drivers to have been arrested for these violations (21% of drinker-drivers vs. 7% of other persons age 16+). [Figure 19-B].

FIGURE 19: DRINKING AND DRIVING VIOLATIONS AND ARRESTS



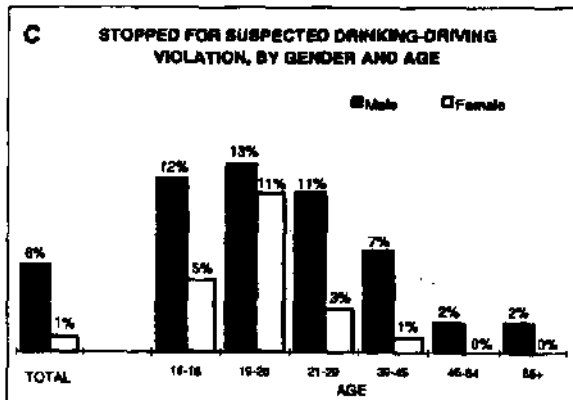
Qx: *In the past 12 months, have you been stopped by a police officer who suspected you of drinking and driving?* [Base: all respondents n=4010]

Qx: *Were you arrested for a drinking and driving violation in the past 12 months?* [Base: stopped for suspicion of a drinking-driving violation n=147]

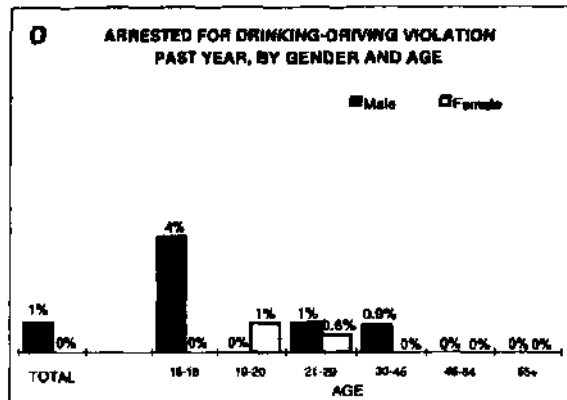


Qx: *In the past 12 months, have you been stopped by a police officer who suspected you of drinking and driving?* [Base: drove within two hours after drinking in past year n=964]

Qx: *Were you arrested for a drinking and driving violation in the past 12 months?* [Base: drinking-drivers stopped for suspicion of a drinking-driving violation n=125]



Qx: *In the past 12 months, have you been stopped by a police officer who suspected you of drinking and driving?* [Base: all respondents**]



Qx: *Were you arrested for a drinking and driving violation in the past 12 months?* [Base: all respondents**]

* A drinking-driving "trip" is defined as an occasion when a driver drove within two hours after drinking any alcohol.

**Sample base for figures on this page:

	Total	16-18	19-20	21-29	30-45	46-64	65+
Total	4010	190	92	588	1412	1076	629
Male	1734	93	42	281	624	460	227
Female	2276	97	50	307	788	606	402

Perceptions about Likely Drinking-Driving Outcomes

Likelihood of Being Stopped by Police Vs. Crash if Drinking and Driving

The driving age public was asked which outcome they thought to be more likely if someone was driving after drinking too much alcohol: being stopped by police or being involved in a crash. Nearly two-thirds (65%) believe that a person who drinks and drives is more likely to be involved in a crash, while 28% believe the person would be more likely to get stopped by the police. [Figure 20-A].

Being Stopped by Police

Overall, nearly six in ten believe that a person is likely to be stopped by the police for driving after having too much to drink. Nine percent (9%) feel this outcome is almost certain, 15% feel this is very likely and 35% say it is somewhat likely. [Figure 20-B].

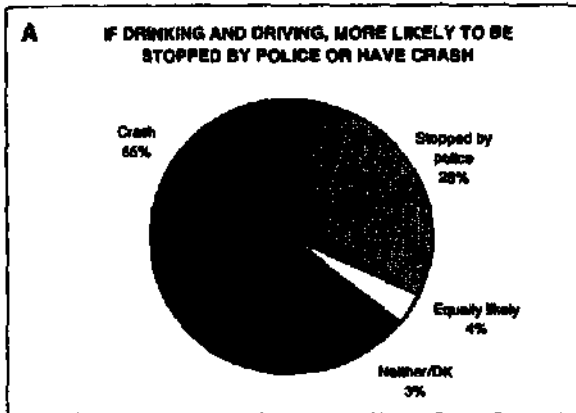
Percent of Impaired Drivers Who Will Get In Crash and Be Stopped By Police

On average, the driving age public believes that the police will stop about 28% of all alcohol-impaired drivers. In contrast, they believe that 40% of them will have a crash. Females feel that a larger proportion of impaired drivers will both get stopped by police and get in a crash. Those under age 21 also perceive a greater likelihood of both outcomes as do older adults. [Figure 20-C].

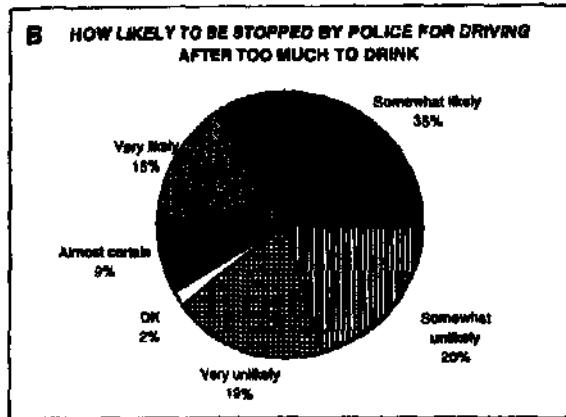
Perceptions of Drinker-Drivers and Other Drivers Who Drink

While both past-year drinking-drivers and other drivers who drink alcohol (but not within two hours of driving) feel that about 25% of impaired drivers will be stopped by the police, other drivers who drink see the crash risk of drinking and driving as being much higher than those who do drink and drive. Those who do not drink and drive feel that about 40% of impaired-drivers will be involved in a crash as compared to just 28% for drinker-drivers [Figure 20-D]. As reported earlier [Figure 19-B] only about 6% of drinking-drivers say they have been stopped for a suspected drinking-driving violation.

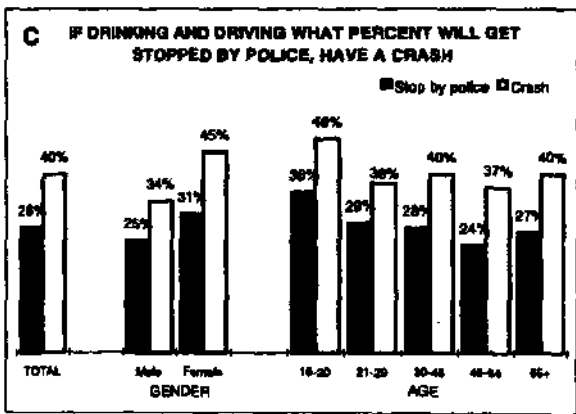
FIGURE 20: PERCEPTIONS ABOUT LIKELY DRINKING-DRIVING OUTCOMES



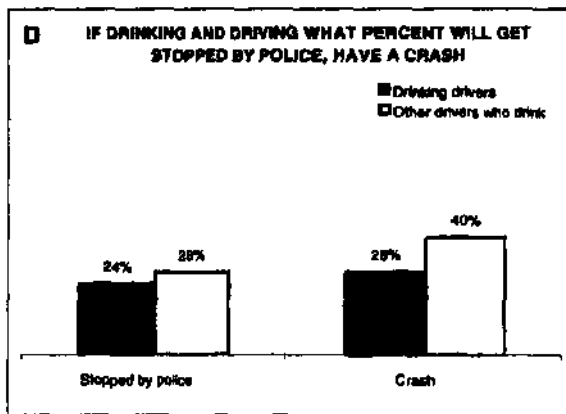
Qx: In your community, if a person drinks too much before driving (and then drives), which do you think is more likely to happen to them -- being stopped by the police or being involved in a crash? [Base: all respondents n=4010]



Qx: How likely are you to be stopped by a police officer for driving after you have had too much to drink? [Base: all respondents n=4010]



Qx: In your opinion, what percent of drivers who are impaired by alcohol (and then drive) will...
 A. Get stopped by the police?
 B. Have a crash?
 [Base: all respondents**]



Qx: In your opinion, what percent of drivers who are impaired by alcohol (and then drive) will...
 A. Get stopped by the police?
 B. Have a crash?
 [Base: drinking-drivers n=964, other drivers who drink n=1617]

*Drinking-drivers: Drove within two hours after drinking in the past year.
 **Sample bases for this page:
 Total all respondents n=4010
 Male n=1734, female n=2276
 18-20 n=282, 21-29 n=588, 30-45 n=1412, 46-64 n=1076, 65+ n=629

Perceptions of Likely Punishment for Drinking-Driving Violations

Likelihood of Receiving Punishment if Caught Drinking and Driving

Half of all persons of driving age feel that punishment is almost certain if one is charged with a drinking and driving violation. [Figure 21-A]. An additional 27% feel that such an outcome would be very likely. Drivers under age 20 are more likely to feel that one would receive punishment, with perceptions of punishment declining with age.

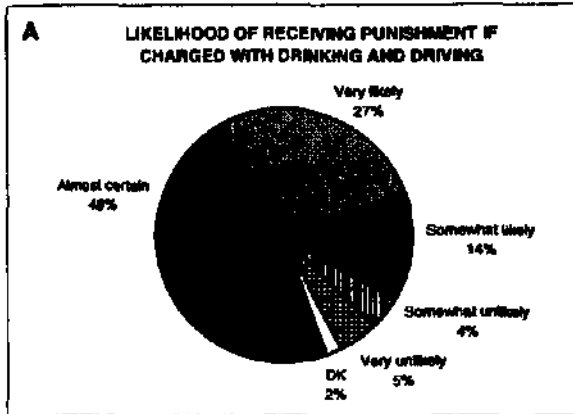
Perceived Severity of Punishment for Drinking and Driving

Three-quarters (77%) of those 16 and older believe that the punishment for a drinking and driving violation would be somewhat or very severe. About 28% feel punishment would be very severe. Those under age 21 are most likely to perceive punishment as severe (39%). [Figure 21-B].

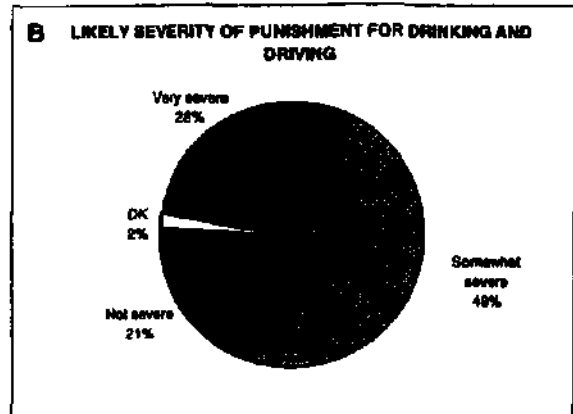
Likely Punishment for First Time Offenders

Six in ten people of driving age feel that a fine is the most likely punishment for first time drinking and driving offenders. About half feel they would have their license suspended or restricted. About two in ten feel that the person would go to jail. [Figure 21-C].

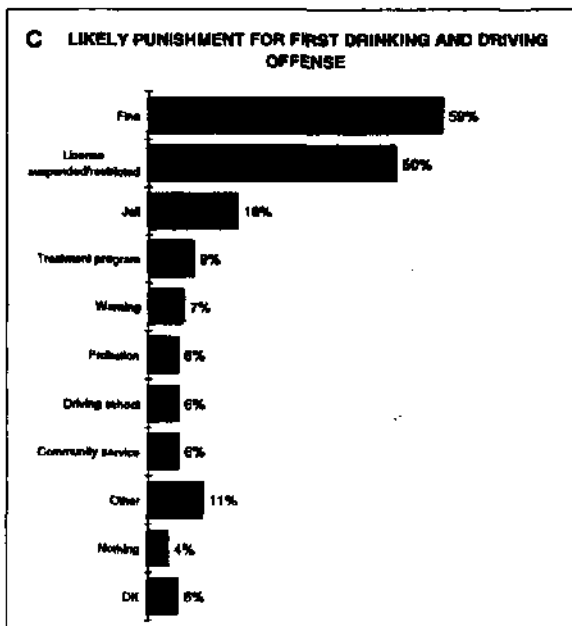
FIGURE 21: PERCEPTIONS OF LIKELY PUNISHMENT FOR DRINKING-DRIVING VIOLATIONS



Qx: *If a police officer stops you and charges you with breaking the drinking and driving laws, how likely are you to receive some sort of punishment such as a fine, a suspension of your driver's license, or something more severe?*
 [Base: all respondents n=4010]



Qx: *If you were actually punished for drinking and driving, do you think the punishment would most likely be very severe, somewhat severe, or not likely be very severe, somewhat severe, or not*
 [Base: all respondents n=4010]



Qx: *What would most likely happen to a driver the first (me he or she was punished for drunk driving)?* [Base: all respondents n=4010]

(multiple responses allowed)

Attitudes about Drinking-Driving Penalties

Perceptions about Severity of Drinking-Driving Laws

The driving age public supports increased penalties for drinking and driving. More than four in ten (43%) feel penalties for violators should be much more severe, while 31% think they could be somewhat more severe. [Figure 22-A].

Perceived Effectiveness of Current Drinking-Driving Penalties

While 58% of those 16 and older feel that current laws and penalties to reduce drinking and driving are at least somewhat effective, 33% feel laws and penalties are not too effective, and 8% see them as not at all effective in curbing drinking and driving. Males perceive the laws to be more effective than do females. [Figure 22-B].

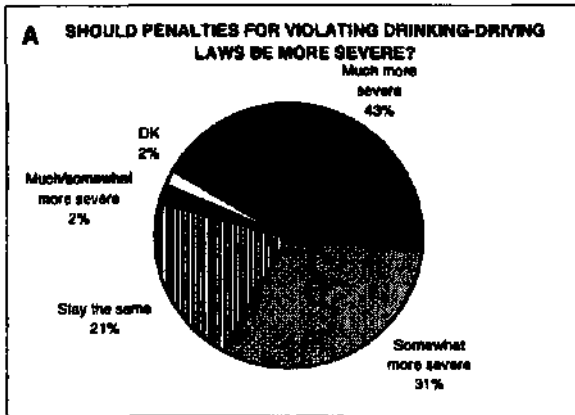
Drinking-Drivers Vs. Other Drivers Who Drink

Drinking-drivers see current drinking and driving laws and penalties being more effective than do other drivers who drink. Two-thirds of drinking-drivers feel laws and penalties are at least somewhat effective compared to 58% of other drivers who drink who feel this way.

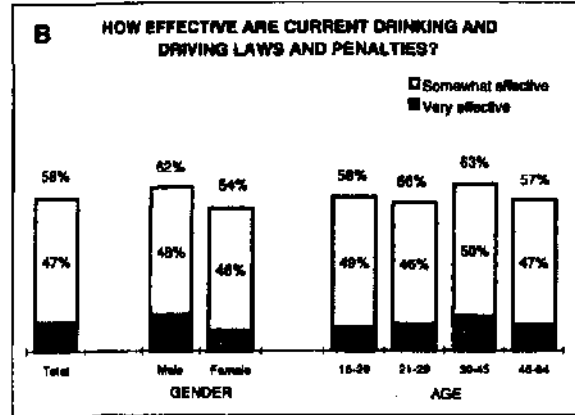
Penalty Recommendations for First-Time and Repeat Offenders

Those of the driving age public would recommend a license suspension (44%) or a fine (27%) for first-time drinking and driving offenders. For repeat offenders, 30% endorse a jail term. [Figure 22-D].

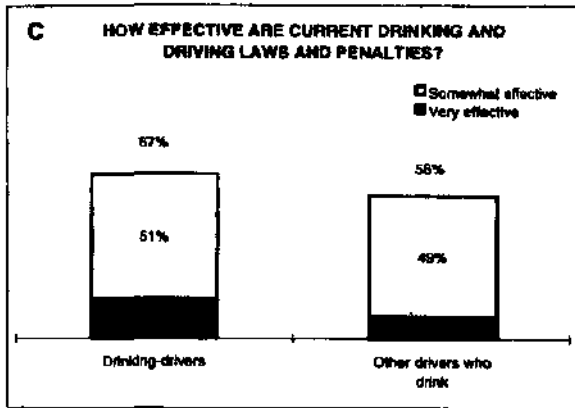
FIGURE 22: ATTITUDES ABOUT DRINKING-DRIVING PENALTIES



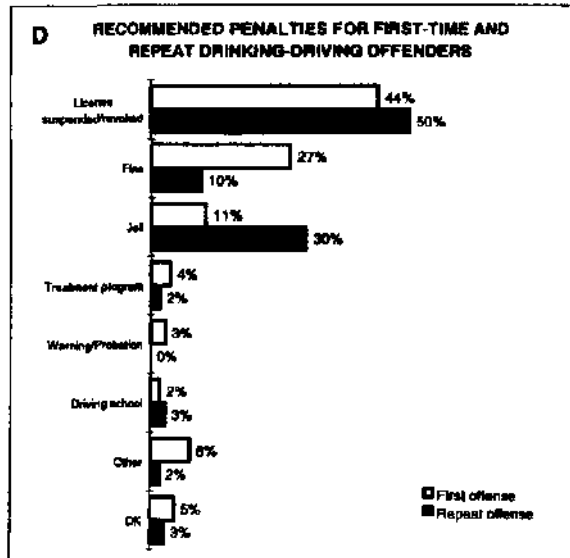
Qx: In your opinion, should the penalties that are given out to drivers who violate the drinking and driving laws be...? [Base: all respondents n=4010]



Qx: In your opinion, how effective are current laws and penalties at reducing drinking and driving? [Base: all respondents**]



Qx: In your opinion, how effective are current laws and penalties at reducing drinking and driving? [Base: drinking-drivers n=964, other drivers who drink n=1617]



Qx: What do you think the penalty should be for driving under the influence of alcohol if it is the first time the driver has been convicted of that offense? What do you think the penalty should be for persons who have been previously convicted for driving under the influence of alcohol? [Base: all respondents n=4010]

**Sample bases for this page:
 Total all respondents n=4010
 Male n=1734, female n=2276
 16-20 n=282, 21-29 n=588, 30-45 n=1412, 46-64 n=1076, 65+ n=629

Perceptions and Use of Sobriety Checkpoints

Sobriety checkpoints are sometimes used by police to check drivers for alcohol impairment. Checkpoints are used as both a deterrent to potential drinker-drivers and as a means of intervention to get impaired drivers off the road before a crash occurs.

Seen a Sobriety Checkpoint, Past Year

Three in ten (29%) persons age 16 or older have seen a sobriety checkpoint in the past year. Males are much more likely to have seen these checkpoints than females. The likelihood of seeing a sobriety checkpoint decreases with age. [Figure 23-A].

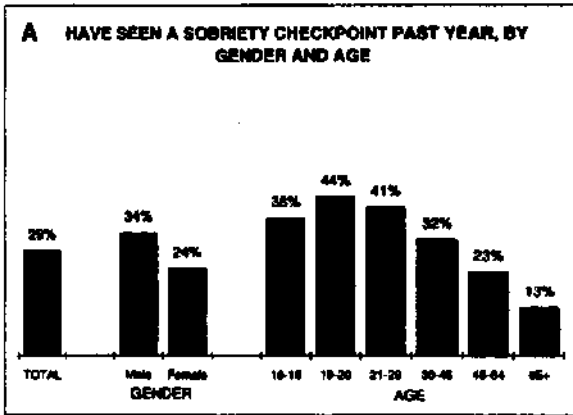
Frequency of Sobriety Checkpoints

About 16% of the driving age public have been through at least one sobriety checkpoint in the past year, with half of these going through a checkpoint at least twice. [Figure 23-B].

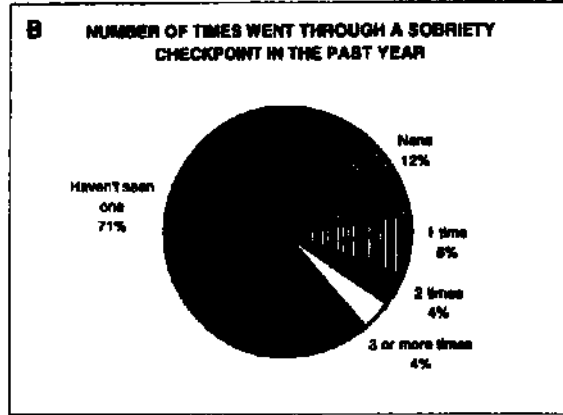
Recommended Frequency of Sobriety Checkpoint Use

More frequent use of sobriety checkpoints is endorsed by two-thirds (67%) of the driving age public. Only 7% feel that less frequent use is warranted. [Figure 23-C]. A majority (63%) of drivers who drink believe that checkpoints should be used more often. [Figure 23-D].

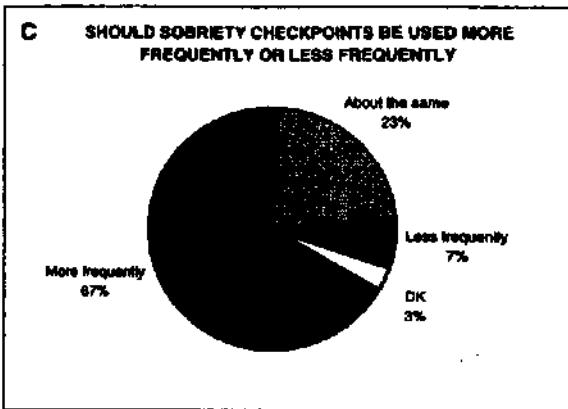
FIGURE 23: PERCEPTIONS AND USE OF SOBRIETY CHECKPOINTS



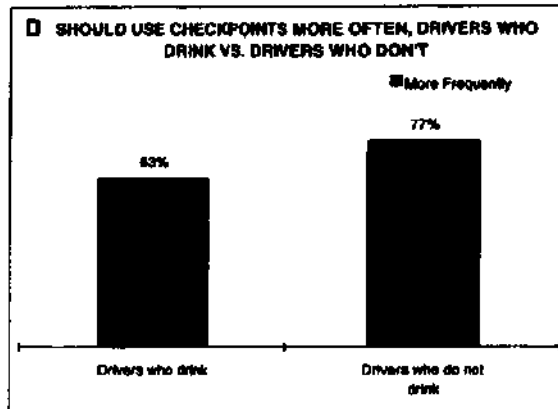
Qx: In the past 12 months, have you seen a sobriety checkpoint- where drivers are stopped briefly by police to check for alcohol-impaired driving? [Base: all respondents"]



Qx: In the past 12 months, have you seen a sobriety checkpoint - where drivers are stopped briefly by police to check for alcohol-impaired driving? How many times have you been through a checkpoint in the last 12 months? [Base: all respondents n=4010]



Qx: Do you think sobriety checkpoints should be used more frequently, about the same as they are now, or less frequently? [Base: all respondents n=4010]



Qx: Do you think sobriety checkpoints should be used more frequently, about the same as they are now, or less frequently? [Base: drivers who drink n=2451, drivers who do not drink n=1251]

** Sample bases for this page:

Total drove after drinking past year n=964

Male n=694, female n=270

16-20 n=34, 21-29 n=208, 30-45 n=392, 46-64 n=237, 65+ n=90

Chapter 5: Knowledge and Awareness of Blood Alcohol Concentration (BAC) Levels and Legal Limits

The amount of alcohol in a person's body can be measured in terms of the "Blood Alcohol Concentration" or BAC level. At the time the survey was administered, most states set the BAC limit at .10, while the limit in IS states was .08. Public sentiment generally supports the .08 BAC initiative.

This section examines the driving age publics awareness and perceptions on the following BAC level topics:

- Awareness and knowledge of BAC levels and the legal limit for their states
- Knowledge of amount of alcohol to reach the BAC legal limit
- Acceptance of .08 BAC legal limits

Awareness and Knowledge about BAC Levels and Legal Limits

Have Heard of BAC Levels

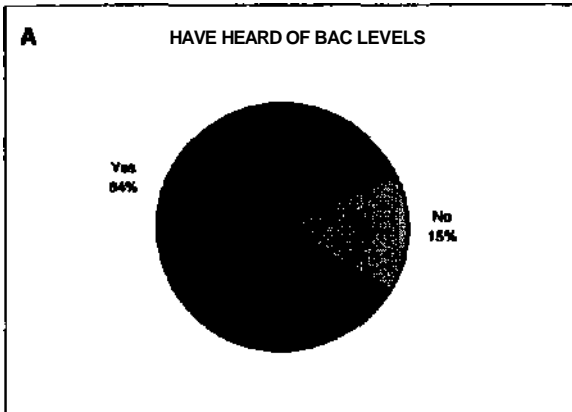
More than four out of five (84%) persons of driving age have heard of blood alcohol concentration (BAC) levels. [Figure 24-A]. Drinking-drivers are significantly more likely to be aware of BAC levels, with 91% awareness. [Figure 24B].

Knowledge of State's BAC Legal Limit

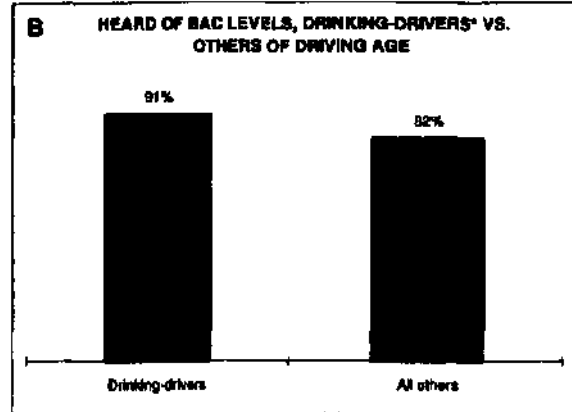
Half of the driving age public think that they know the BAC legal limit for their state. However, just over half of those who thought they knew the level were able to give the correct BAC legal limit for their state. [Figure 24-C].

Persons living in the 36 states or district with a .10 BAC legal limit were slightly less likely to correctly know this level than those persons living in states with a .08 limit. [Figure 24-D].

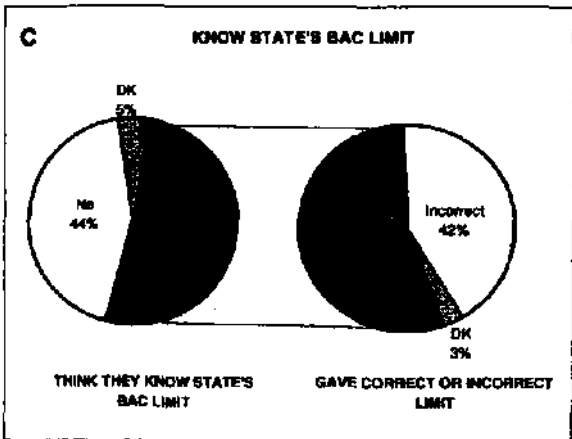
FIGURE 24: AWARENESS AND KNOWLEDGE ABOUT BAC LEVELS AND LEGAL LIMITS



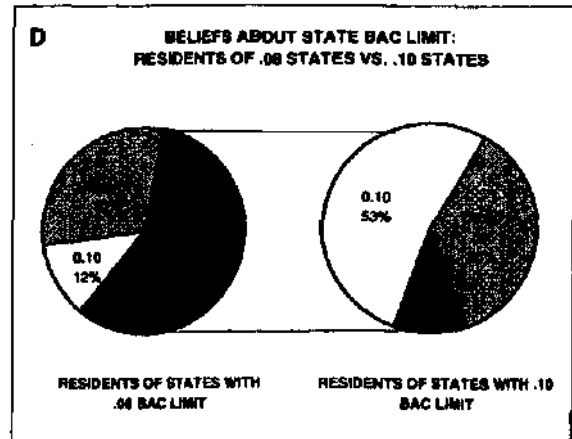
Qx: The amount of alcohol in a person's body can be measured in terms of the "Blood Alcohol Concentration," which is often called the BAC level. Have you heard of blood alcohol concentration or BAC levels?
 [Base: all respondents n=4010]



Qx: The amount of alcohol in a person's body can be measured in terms of the "Blood Alcohol Concentration," which is often called the BAC level. Have you heard of blood alcohol concentration or BAC levels?
 [Base: drinking-drivers n=964, all others n=3046]



Qx: Do you know the specific BAC limit for your state?
 Qx: What do you think the limit is?
 [Base: respondents who thought they knew state's BAC limit; answers were compared with actual BAC limit for each respondent's state of residence n=3348]



Qx: Do you know the specific BAC limit for your state?
 Qx: What do you think the limit is?
 [Base: respondents who thought they knew state's BAC limit; answers were compared with actual BAC limit for each respondent's state of residence n=3348]

*Drinking-drivers: Drove within two hours after drinking in the past year.

BAC Limits for Drivers Under Age 21

All 50 states and the District of Columbia have laws that prohibit the purchase and public possession of alcoholic beverages by persons under the age of 21. At the time this survey was administered, 45 states and the District of Columbia have set "zero-tolerance" laws for persons under age 21. For this purpose "zero tolerance" is any measurable amount of alcohol or a maximum of .02 BAC.

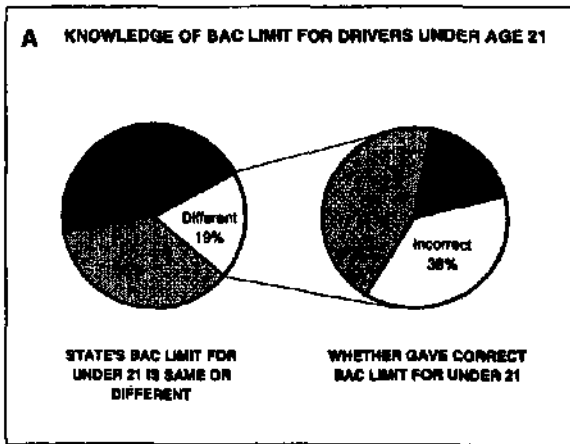
Knowledge of BAC Limit for Minors

More than one-third (36%) of the driving age public do not know if their state has a different BAC level for drivers under the age of 21. One in five (19%) thinks the legal limit for those under 21 is different for those over 21. Just 18% of those who thought the legal limit was different for minors were correct in their knowledge of this level. [Figure 25-A].

Feel BAC for Drivers Under 21 Should be Lower

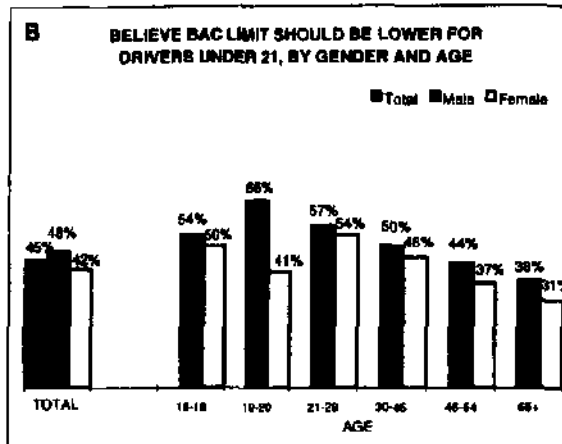
More than four in ten feel that the BAC limit for drivers under age 21 should be lower than for drivers over 21. Males are more likely to feel that the limit for minors should be lower. Support for lower BAC limits for youth is stronger among those under age 30, with the strongest support among 19-20 males. [Figure 25-B].

FIGURE 25: BAC LIMITS FOR DRIVERS UNDER AGE 21



Qx: In some states the legal BAC limit for drivers under 21 is different than for drivers over 21. In your state, is the legal limit the same for drivers under 21? (Base: all respondents n=4010)

Qx: What is the legal limit in your state for drivers under 21? [Base: said their state had a different BAC limit for younger drivers. Answers were compared with actual BAC limits for drivers under 21 for each respondent's state of residence n=708]



Qx: Do you believe the BAC limit for drivers under 21 should be lower than for drivers over 21? [Base: all respondents**]

**Sample bases for this page:
 Total all respondents n=4010
 Male n=1734, female n=2276
 16-20 n=282, 21-29 n=588, 30-45 n=1412, 46-64 n=1076, 65+ n=629

Knowledge of Amount of Alcohol to Reach BAC Limit

Number of Beers in Two Hours to Reach Legal Limit

Those who thought they knew their state's BAC limit were asked how many beers in a two-hour period it would take to just reach their state's legal limit. The driving age public generally underestimates the number of drinks it takes to reach the BAC level in their state.

Nearly two-thirds (63%) believe that it would take three or fewer beers within two hours to reach the state's limit. An additional 19% feel that the limit would be reached at four beers. The general public greatly under-estimates the number of drinks to reach the legal BAC limit. Studies have shown that it would take an average 170-pound male five drinks within a two-hour period to reach a level of .08, while a 137-pound woman would reach this level with three drinks in two hours. [Figure 26-A].

Number of Drivers Who Would be Dangerous With BAC at Legal Limit

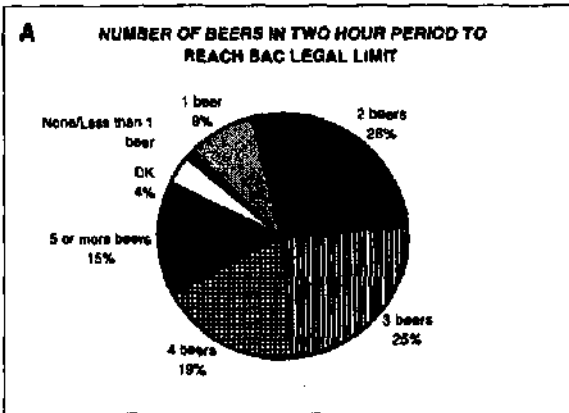
Nearly two-thirds of those who have heard of BAC levels think that all or most drivers would be dangerous with a BAC at the legal limit. [Figure 26-B].

Persons living in .10 states are slightly more likely to feel that all or most drivers would be dangerous at their state's legal limit than is true of those living in states with a .08 BAC limit. [Figure 26-C].

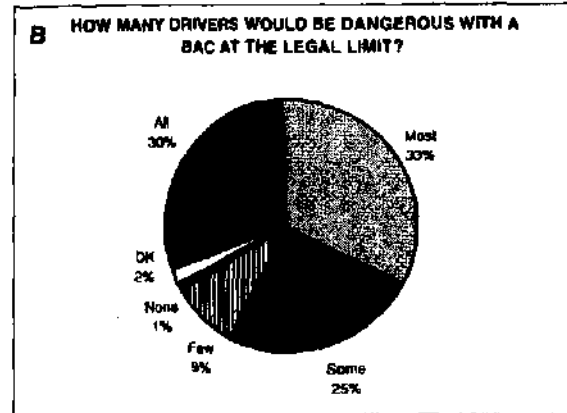
Percent of Drivers Who Would be Dangerous After 5 Beers in 2 Hours

Three-quarters of the driving age public believes that at least half of all drivers who had consumed five beers in two hours would be dangerous on the road. Nearly one-third (31%) feel that all (100%) drivers would be dangerous after this many drinks. [Figure 26-D]. Past-year drinker-drivers believe that a smaller proportion of the population would be dangerous after five beers than do non-drinker-drivers.

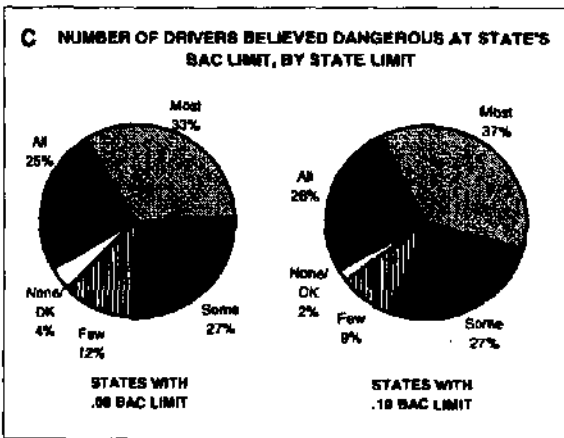
FIGURE 26: KNOWLEDGE OF AMOUNT OF ALCOHOL TO REACH BAC LIMIT



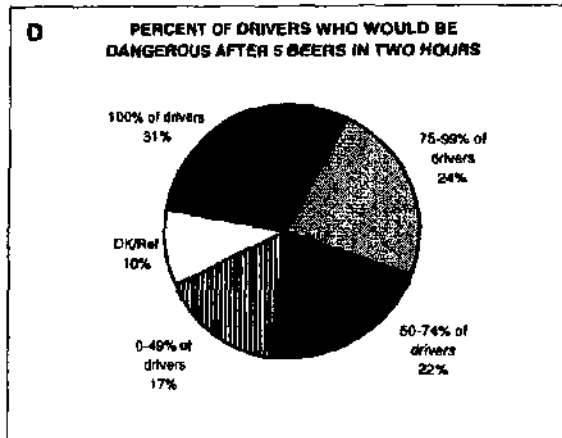
Qx: How many beers would a person about your size have to drink in a two hour period to just reach the legal limit? [Base: believe they know the state's BAC limit n=1697]



Qx: In your opinion, how many drivers would actually be dangerous drivers with a BAC at the legal limit? [Base: have heard of BAC levels n=3348]



Qx: In your opinion, how many drivers would actually be dangerous drivers with a BAC at the legal limit? [Base: state residents who have heard of BAC levels n=3348]



Qx: In some states, the average person will reach the legal limit after drinking five beers in two hours. In your opinion, what percent of drivers would be dangerous after having five beers in two hours? [Base: all respondents n=4010]

Acceptance of .08 BAC Limit

New questions were added in the 1997 study to get a better understanding of the driving age public's perceptions and acceptance of .08 BAC limits. Persons living in .08 BAC limit states who had heard of BAC levels were asked if the BAC limit in their state should stay at its current level, or be raised (made looser) to .10. Those living in .10 BAC states were asked if their state's level should be lowered (made stricter) to .08 or stay at the current level.

Views Toward the Raising/Lowering of State's BAC Limit

A majority of those aware of BAC levels support a BAC limit of .08 or stronger. More than half (56%) of those age 16 and older who have heard of BAC levels feel that their state's BAC level should remain at, (for those in .08 states) or be lowered to (for those .10 states) a .08 BAC level. Eight of ten (80%) of these residents in current .08 states feel that the limit should remain at .08, or be made even stricter while about 40% of those in .10 states feel that the limit should be lowered to .08. [Figure 27-A].

By Age

Those under age 21 and over age 45 are most likely to feel that the BAC limit should be .08, with about 60% of persons in these age groups supporting a BAC limit of .08. [Figure 27-B].

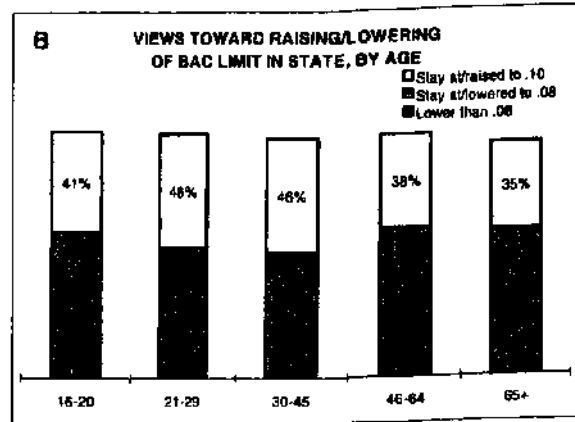
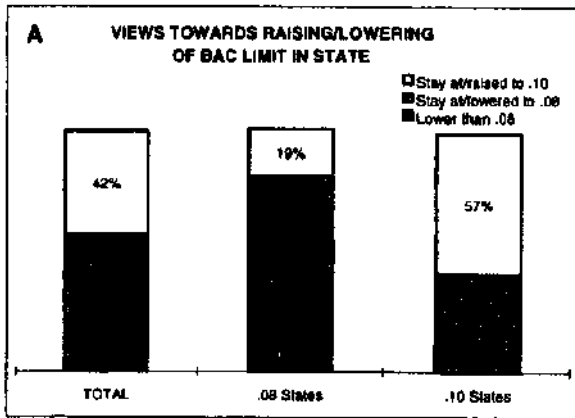
By Gender

Females are much more likely to say the BAC limit should stay at or be made stricter to .08 than are males with 61% of females, versus 52% of males supporting a .08 limit. [Figure 27-C].

Drinker-Drivers

Support for .08 BAC limits is much higher among persons of driving age who do not drive within two hours of consuming alcohol. While more than one-third (36%) of drinker-drivers feel their state limit should be .08, 61% of non-drinker drivers support .08 BAC. [Figure 27-D].

FIGURE 27: ACCEPTANCE OF .08 BAC LIMIT

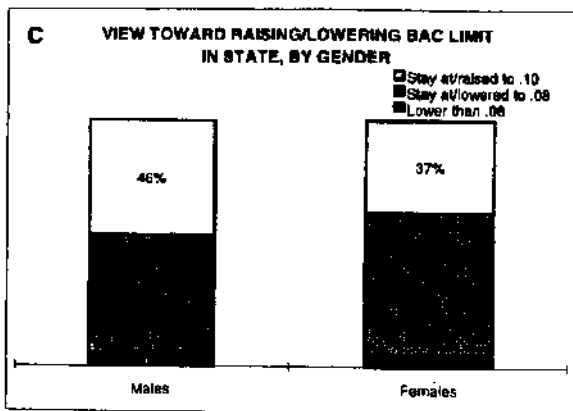


A Qx: The BAC limit in your state is currently .08. In your opinion, should the BAC level in your state be raised, that is made looser to a level of .10, or should it stay at its current level of .08?

B Qx: The BAC limit in your state is currently .10. In your opinion, should the BAC level in your state be lowered, that is, made stricter to a level of .08, or should it stay at the current level of .10?

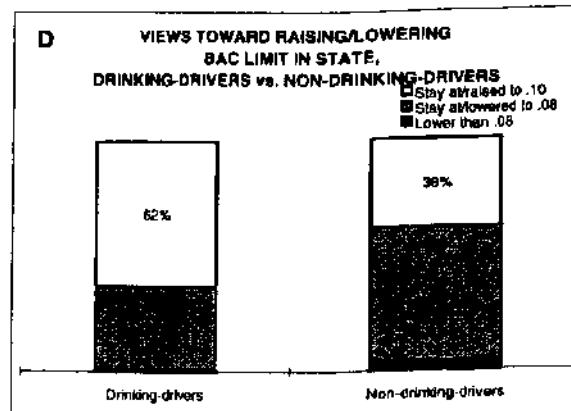
[Base: heard of BAC levels in states noted.]

[Base: heard of BAC levels in states noted.]



C Qx: The BAC limit in your state is currently .08. In your opinion, should the BAC level in your state be raised, that is made looser to a level of .10, or should it stay at its current level of .08?

[Base: specified in the chart and heard of BAC levels]



D Qx: The BAC limit in your state is currently .10. In your opinion, should the BAC level in your state be lowered, that is, made stricter to a level of .08, or should it stay at the current level of .10?

[Base: specified in the chart and heard of BAC levels]

Chapter 6: Motor Vehicle Crash and Injury Experience

The overriding goal in attempts to reduce alcohol-impaired driving is to reduce the resulting alcohol-related motor vehicle crashes, especially those that result in fatalities. This section examines experiences in motor vehicle crashes as both a passenger and a driver, specifically it covers the following topics:

- Involvement in motor vehicle crash in past year as a driver
- Consumption of alcohol by respondent as driver prior to the crash
- Resulting injuries from crash as the driver
- Involvement in motor vehicle crash in past year as a passenger
- Consumption of alcohol by driver of prior to the crash
- Resulting injuries from crash as a passenger

Involvement in Motor Vehicle Crash, Past Year

Involved in Vehicle Crash as Driver, Past Year

One in ten (11%) drivers were involved in a motor vehicle crash in the past year while driving a motor vehicle. Motor vehicle crashes were significantly more likely to be reported by drivers age 16-20, of whom 34% report a crash. The likelihood of a motor vehicle crash declines steadily with age. [Figure 28-A].

Consumption of Alcohol Prior to Crash, Crashes as a Driver

The driver had consumed alcohol within two hours prior to driving in about 2% of the reported past-year motor vehicle crashes. Males and drivers under age 30 were more likely to have consumed alcohol prior to their crash. [Figure 28-B].

Injury Experienced in Motor Vehicle Crash as the Driver, Past Year

Somewhat more than 2% of all drivers have been involved in a motor vehicle crash, which resulted in an injury to the driver or a passenger. Those under age 21 are more likely to have been involved in an injury crash. [Figure 28-C].

Passenger in Vehicle Crash, Past Year

About 4% of the driving age public has been involved in a motor vehicle crash as a passenger in the past year. Youths under age 21 are four times as likely as other drivers to have been a passenger in a vehicle crash in the past year. [Figure 28-D].

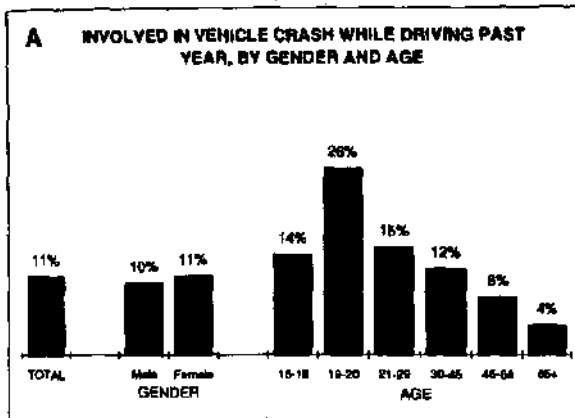
Injury Experience in Motor Vehicle Crash as a Passenger, Past Year

An injury was sustained by one or more persons in about 29% of the motor vehicle crashes in which the driving age public was involved in the past year. [Figure 28-E].

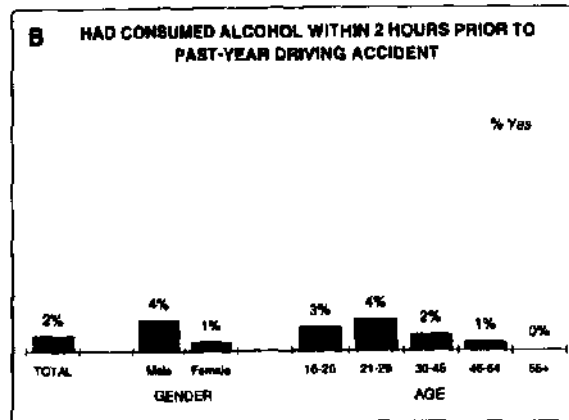
Consumption of Alcohol Prior to Crash, Crashes as a Passenger

The driver had consumed alcohol within two hours prior to driving in about 10% of the motor vehicle crashes where a person of driving age was involved as a passenger. [Figure 28-F].

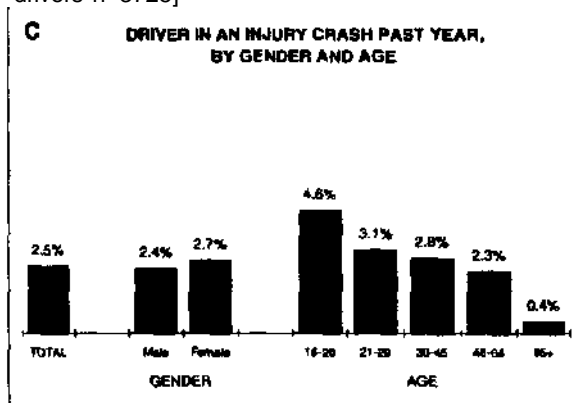
FIGURE 28: INVOLVEMENT IN MOTOR VEHICLE CRASH, PAST YEAR



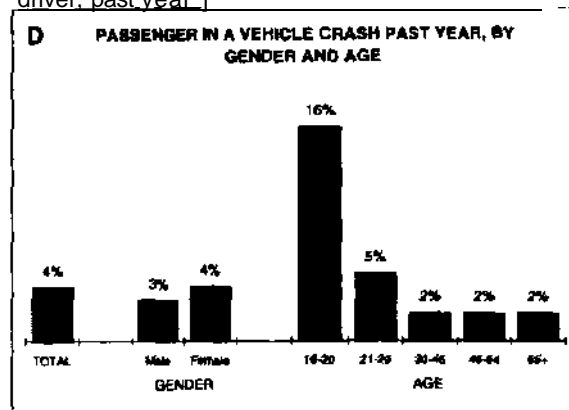
Qx: In the past 12 months, have you been involved in a crash while driving a motor vehicle? [Base: drivers n=3725]



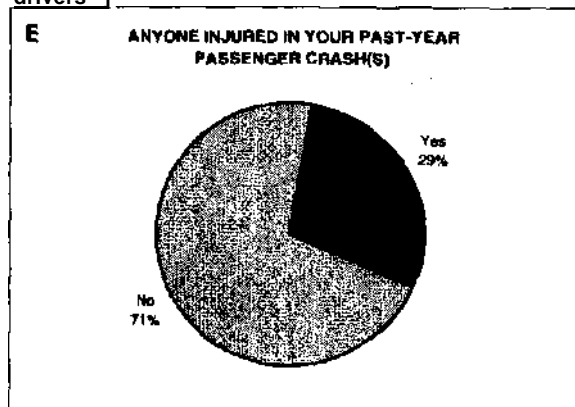
Qx: Had you consumed alcohol within two hours prior to the crash? [Base: involved in crash as driver, past year"]



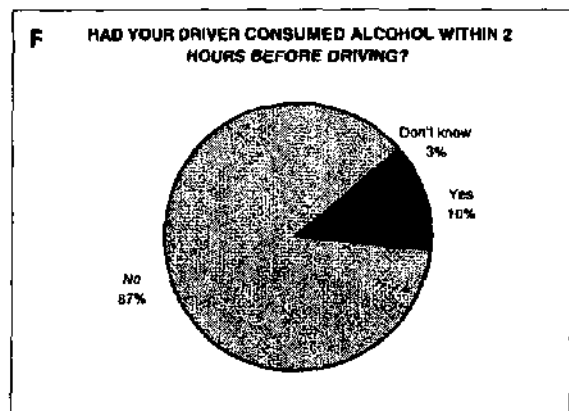
Qx: In the past 12 months, have you been involved in a crash while driving a motor vehicle? Was anyone injured (in any of those accidents)? [Base: drivers**]



Qx: In the past 12 months, have you been in a crash where you were a passenger? [Base: all respondents**]



Qx: Was anyone injured (in any of those crashes)? [Base: involved in a crash as a passenger, past year n=128]



Qx: Had your driver consumed alcohol within two hours before getting behind the wheel? [Base: involved in a crash as a passenger, past year n=128]

**Sample base for figures on this page:

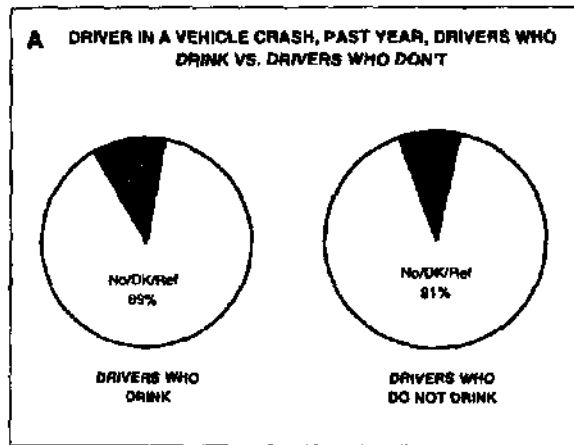
	Total	Male	Female	16-20	21-29	30-45	46-64	65+
Total	4010	1734	2276	282	588	1412	1076	629
Drivers	3725	1675	2048	251	565	1355	1024	521
Involved in crash while driving	404	176	228	50	82	166	85	20

Crash Experience of Drivers Who Drink, Drivers Who Do Not Drink, and Drinking-Drivers

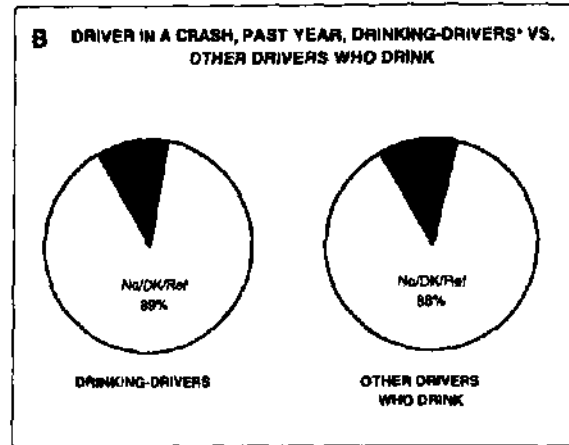
Drivers who drink are slightly more likely to have been involved in a motor vehicle crash in the past year than have drivers who do not drink. About 11% of drivers who drink have been involved in a past-year crash as compared to 9% for drivers who do not drink. [Figure 29-A].

There is no significant difference in the percentage of drinking-drivers who report involvement in motor vehicle crashes in the past year and that of other drivers who drink (but not within two hours of driving). [Figure 29-B].

FIGURE 29: CRASH EXPERIENCE OF DRIVERS WHO DRINK, DRIVERS WHO DO NOT DRINK, AND DRINKING-DRIVERS*



Qx: In the past 12 months, have you had an accident while driving a motor vehicle? [Base: drivers who drink n=2451, drivers who do not drink n=1251]



Qx: In the past 12 months, have you had an accident while driving a motor vehicle? [Base: drinking-drivers n=964, other drivers who drink n=1487]

*Drinking-drivers: Drove within two hours after drinking in past year.

Trends: 1991, 1993, 1995 and 1997

Chapter 7: Trends in Drinking and Driving Attitudes and Behaviors: Trend Data from the Biennial Studies Conducted 1991, 1993, 1995 and 1997

This 1997 survey marks the fourth in a series of biennial drinking and driving attitudes and behavior tracking surveys conducted by NHTSA. These studies of the driving age public provide NHTSA with continuing feedback on the changes in attitudes and behaviors related to drinking and driving. As the fourth measurement in the series, the 1997 data now allows for examinations of statistical trends. All differences reported in this section are statistically significant. Significant differences were tested between two survey years or groups of years using a statistical test of independence, and with an analysis of variance test (ANOVA) to test trends over three or more periods.

This section presents trend data for measures that were included in the previous versions of this survey. The most substantial changes in the survey instrument were made between the 1991 and 1993 administrations, with the addition of several key survey items. Thus, some tables in this section show data only for 1993, 1995 and 1997. Key topics addressed here include:

- Drinking and driving occurrences in the past year (1993-1997 only) and the past 30 days
- Estimates of total drinking and driving trips (1993-1997)
- Riding with a driver who may have consumed too much alcohol to drive safely
- Riding with and being a designated driver
- Attitudes about self and other's drinking and driving
- Perceptions about enforcement and penalties for drinking and driving
- Opinions about severity and effectiveness of drinking and driving laws and penalties
- Opinions on use of sobriety check points
- Measures of potential problem drinking

The 1991 baseline measure only included persons age 16 to 64, rather than all persons age 16 and older. In order to provide accurate comparisons to the baseline, results presented in this section are only for those age 16 to 64, unless otherwise noted. Since the population base differs from that presented earlier in this report for 1997, some survey results will not match those presented earlier for the full population age 16 and older.

Trends in Past-Year Drinking and Driving

Drove Within Two Hours After Drinking Alcoholic Beverages

Total Population, Age 16-64

The overall proportion of the driving age population that has driven within two hours of consuming alcoholic beverages decreased significantly between 1993 and 1995, from about 28% of 16- to 64-year-olds in 1993 to 24% in 1995. The 1997 level of 25% is statistically consistent with that of 1995. [Figure 30-A].

Gender Differences, Age 16-64

Males showed a decrease in drinking and driving incidence in 1995 from previous levels in 1993 and 1991 (33% versus 40% and 36% previously). While, in 1997 the proportion of males who drove within two hours of drinking alcoholic beverages climbed back up from 1995 levels to 37%, the current level is still lower than the 40% found in 1993. [Figure 30-B].

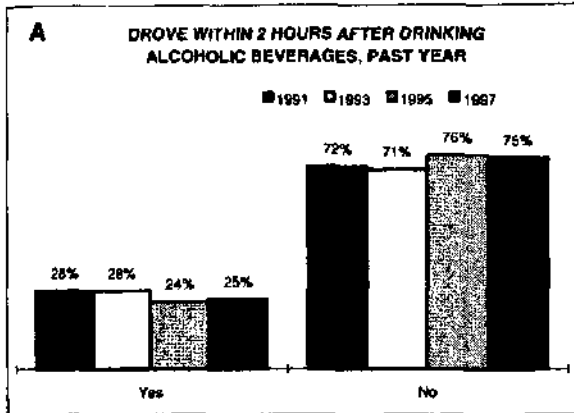
Age Differences, Age 16-64

There are no clear patterns of change in the percentage of those who drove within two hours of drinking among age groups. The percentage has decreased among 30- to 45-year-olds since 1993, while that of 46- to 64-year-olds has remained constant near 22%. 16- to 20-year-olds had showed a small decrease in 1995 from 1993, but have returned to 1993 levels near 12%. The decreasing trend among 21- to 29-year-olds between 1991 and 1995 has reversed, with 35% of this group reporting drinking-driving behavior in 1997. [Figure 30-C].

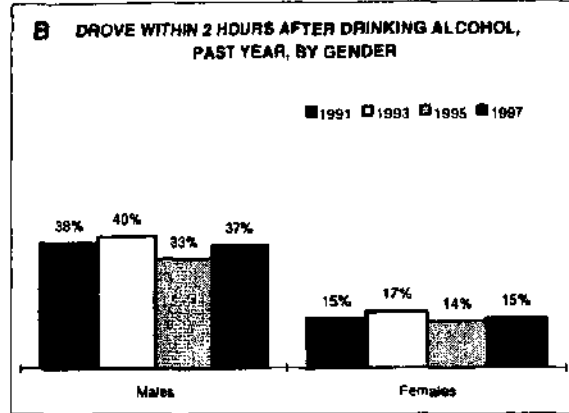
Average Number of Times Drove After Drinking in Past Year, Age 16+

Among those who have driven within two hours of drinking in the past year, the average number of times they have done so has decreased significantly from an average of 13.4 annual drinking-driving trips in 1993 to a current level of 11.1 average trips per drinker-driver in 1997. [Figure 30-D]. It appears that past-year drinking and driving trips has declined among 16- to 29-year-olds. It should be noted that while the average number of drinking-driving trips reported by drinker-drivers in this age group has declined somewhat, the overall proportion of 16- to 29-year-olds reporting any drinking-driving trips has increased, resulting in a similar number of total drinking-driving trips.

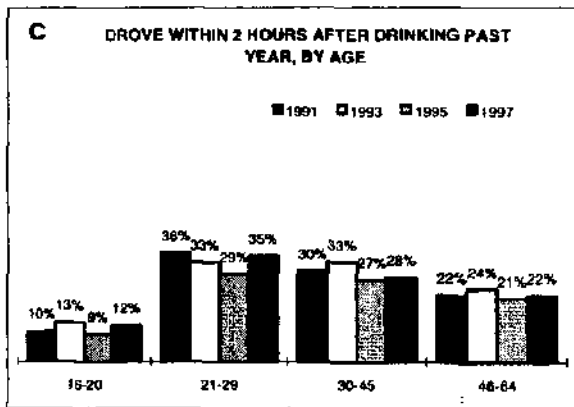
FIGURE 30: TRENDS IN PAST-YEAR DRINKING AND DRIVING



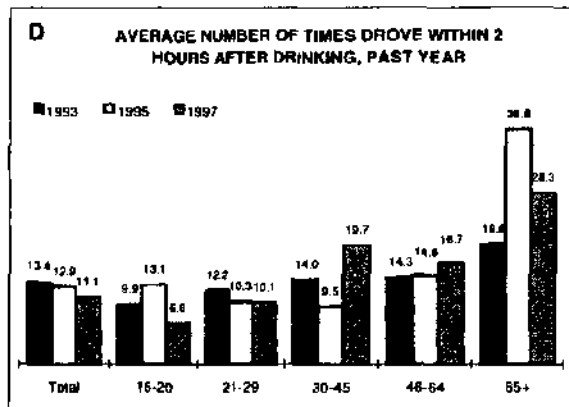
Qx: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: all respondents aged 16-64]



Qx: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: all respondents aged 16-64]



Qx: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: all respondents aged 16-64]



Qx: How many times in the past 12 months have you driven within two hours after drinking any alcohol? [Base: drivers aged 16 or older who drove within two hours after drinking in the past year]

A chart showing sample bases for figures on this page can be found at the end of this section.

Trends in Past Month Drinking and Driving

Drove Within Two Hours After Drinking Alcoholic Beverages in Past Month

Drivers age 16-64 who drove within two hours of consuming alcohol in the past year (drinker-drivers) were asked how many times they had done so in the past 30 days. The 30-day measure is used since recall of the time period is likely to be more accurate than that for past the year.

Total Drivers Who Drank Any Alcohol, Age 16-64

The overall percentage of drinker-drivers who have driven within two hours of consuming alcoholic beverages in the past 30 days decreased significantly between 1991 and 1995, from about 26% to 21%. The declining trend leveled off in 1997 with 21% of 16- to 64-year-old drinking-drivers reporting driving after drinking in the past-month. [Figure 31-A].

Average Number of Past-Month Drinking-Driving Trips, Age 16-64

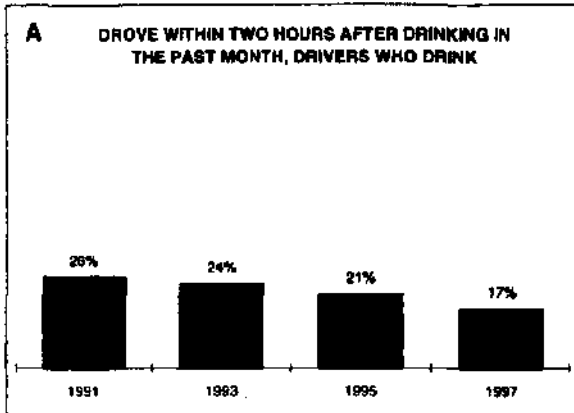
The average number of past-month drinking-driving trips among drivers who had driven within two hours of drinking alcohol in the past year, has declined significantly from 1991 to 1995, from an average of about 2.3 trips in 1991, to 2.0 trips in 1993 and to 1.5 average trips in 1995. This has leveled off in 1997 to about 1.7 average monthly trips (not statistically different from the 1995 measure). [Figure 31-B].

Average Number of Past-Month Drinking-Driving Trips, Gender and Age Differences

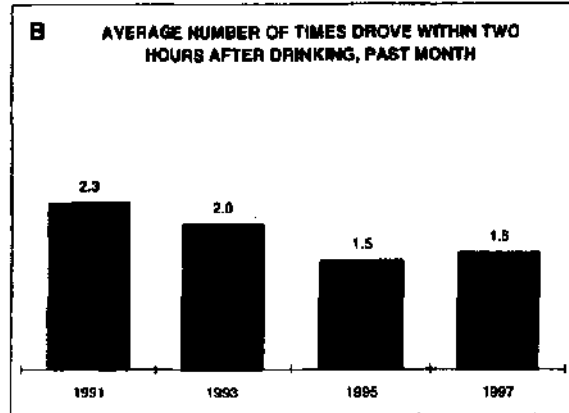
The average number of past-month drinking-driving trips declined significantly from 1991 levels among both males and females. Males declined from 2.6 average trips in 1991 to 1.7 trips in 1995. The current level of 2.0 average trips is still significantly lower than the baseline measure in 1991. Females showed a significant drop between 1991 and 1993 from 2.0 to 1.0 mean trips. This level of about one trip per month has remained statistically consistent since 1993. [Figure 31-CJ].

Past-month drinking-driving trips declined significantly since 1991 among drinking-drivers in all age groups. The 46- to 64-year-old group has shown a consistent decline from a high of 2.5 average monthly drinking-driving trips in 1991 to 1.6 in 1997. Those age 21 to 45 have also reduced these trips overall since 1991, but currently show a slight increase off of 1995 measures. Also, 16- to 20-year-olds have shown a consistent decline since 1993. [Figure 31-D].

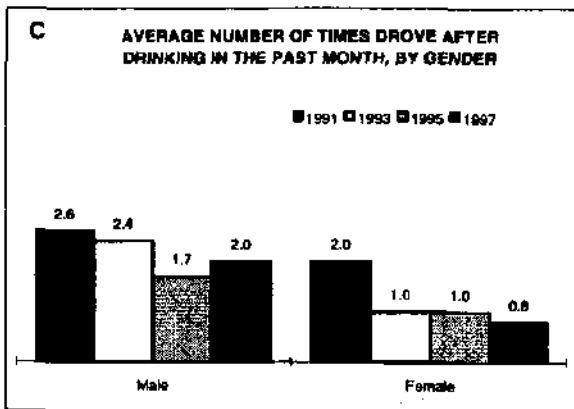
FIGURE 31: TRENDS IN DRINKING AND DRIVING, PAST MONTH



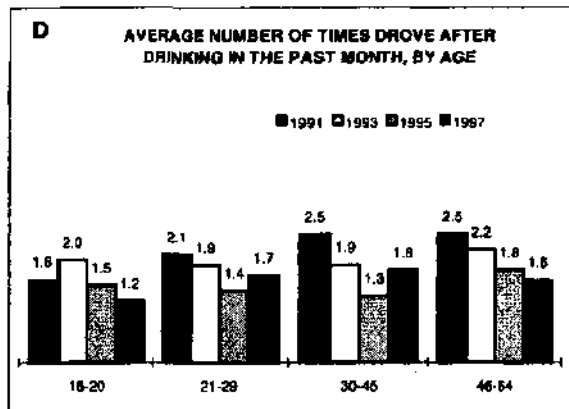
Qx: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: drivers aged 16-64 who drank alcohol in past year]



Qx: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: drivers aged 16-64 who drove after drinking in past year]



Qx: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: aged 16-64 drove after drinking in the past year]



Qx: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages? [Base: aged 16-64 drove after drinking in the past year]

A chart showing sample bases for figures on this page can be found at the end of this section.

National Estimates of Total Drinking-Driving Trips

Estimates of total drinking driving trips based on self-reported data were performed to estimate the total drinking-driving trips for the driving public based on self-reported data. For the purposes of this analysis alcohol-impaired driving was defined as any positive response to the question "In the PAST 30 DAYS how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?"

Calculation of Drinking-Driving Trips

As the past 30-day measure was felt to be more reliable than the self-reported past 12-month measure, the total number of drinking-driving trips was calculated for each respondent by multiplying the self-reported number of trips in the past month by 12 to obtain a yearly total. The number of trips was summed across respondents and is reported by age and gender in Figure 32-C.

It is important to note that the total trip data presented here may not reflect the true number of alcohol-impaired driving trips made each year for a number of reasons: people may not be able to accurately recall the number of such trips, the previous month may not be indicative of the respondent's total year drinking-driving trips and people may under-report such behavior if they feel it is socially desirable to do so. This analysis is meant to provide an approximation of the range of possible drinking-driving trips by gender and age.

TRENDS in Total Drinking-Driving Trips, Total Persons Age 16 and Older

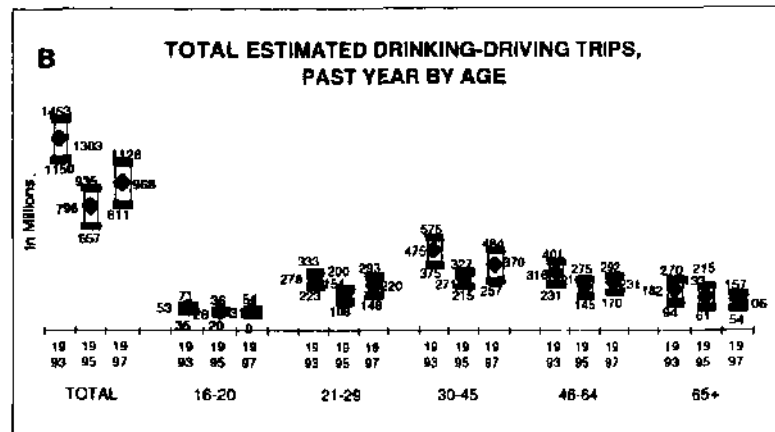
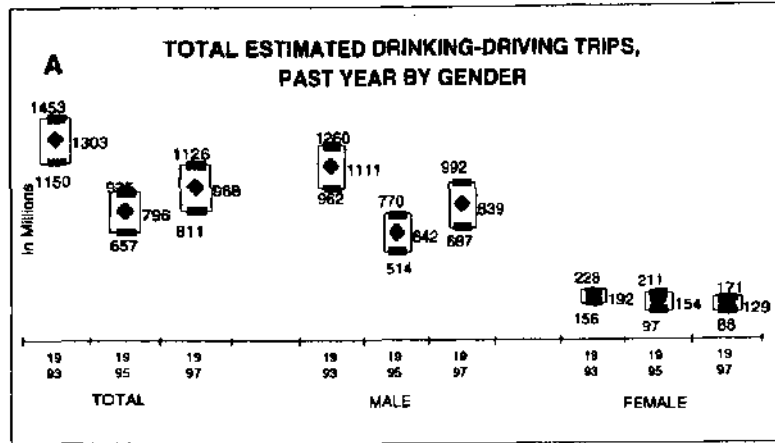
Overall, drivers who have consumed alcoholic beverages within two hours of starting their driving trip made an estimated 968 million (± 103 million) driving trips in 1997. This estimated number is significantly lower than that for 1993 of about 1.3 billion (± 153 million) drinking-driving trips. In 1995, about 800 million (± 139 million) drinking-driving trips were estimated based on reported past-month data. The error ranges for each year by gender and age appear at the bottom of Figure 32.

It should be noted that the sample sizes for those under age 21 and 65 and older are very small, resulting in large error ranges. The error range for 1997 trip estimates of 16- to 20-year-olds is ± 22 million trips, while trips by those age 65+ could vary ± 62 million trips from that shown in Figure 32-B.

While total drinking-driving trips have declined for both males and females since 1993, males report a higher total number of trips in 1997 than in 1995. Total trips have declined among all groups since 1993; however, current total trips are higher among the 21- to 34-year-old group than was true in 1995.

EDITOR'S NOTE: While past month trips were thought to be a more accurate representation than past 12 month recall, the reader is cautioned that a seasonal bias is possible in such reporting. If the past year measure were used rather than the past month (projected out for 12 months), the total number of trips would be approximately 853 million rather than 968 million trips.

FIGURE 32: NATIONAL ESTIMATES OF TOTAL YEARLY DRINKING-DRIVING TRIPS



*Total drinking-driving trips were estimated by multiplying the number of drinking-driving trips in the past 30 days by 12 to yield a yearly estimate for each respondent. Total trips were summed across all respondents and data were projected to the total U.S. population age 16 or older. Error range for total number of trips by gender and age (in millions):
 1997: Total ±158; male ±153; female ±41; 16-20 ±22; 21-29 ±73; 30-45 ±1142; 46-64 ±61; 65+ ±51.
 1995: Total ±139; male ±126; female ±57; 16-20 ±8; 21-29 ±46; 30-45 ±56; 46-64 ±65; 65+ ±72.
 1993: Total ±153; male ±149; female ±36; 16-20 ±18; 21-29 ±55; 30-45 ±100; 46-64 ±85; 65+ ±88

Experience as Passenger of Potentially Unsafe Drinking-Driver, Past Year

Rode With Driver Who Consumed too Much Alcohol to Drive Safely

Total Population, Age 16-64

The proportion of persons age 16-64 who have ridden with someone in the past year who they thought may have had too much alcohol to drive safely has declined significantly since 1991, from about 15% to a level of 11% reported in both 1995 and 1997.

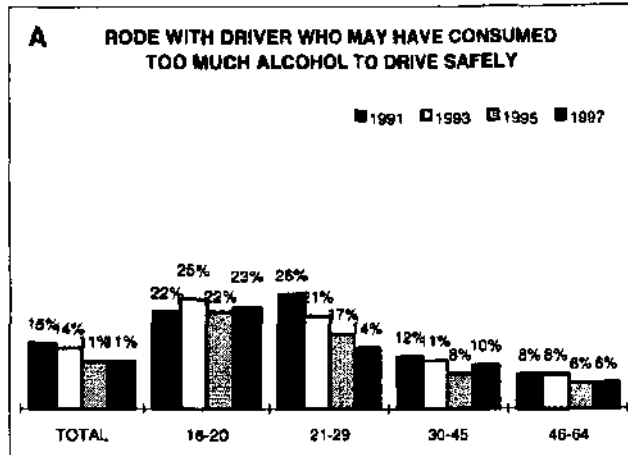
Age Differences, Age 16-64

The percentage of those who report being a passenger of a driver who may have consumed too much to drive safely has declined or remained consistent for all age groups across the four measures of the study. Reports of such behavior have declined steadily among the 21- to 29-year-old group since 1991. Most other age groups have remained consistent over time.

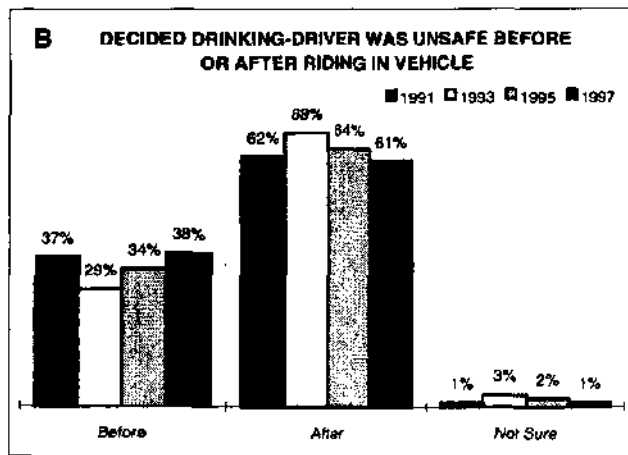
Point at Which Decided Driver Was Unsafe, Age 16-64

There has been a consistent increase in the proportion of persons who decided their driver was unsafe **before** they were riding with them since 1993, from 29% to a current level of 38%. This two-year increase follows a large decline between 1991 to 1993.

FIGURE 33: EXPERIENCE AS PASSENGER OF POTENTIALLY UNSAFE DRINKING-DRIVER, PAST YEAR



Qx: In the past 12 months, did you ever ride in a motor vehicle with a driver you thought might have consumed too much alcohol to drive safely? [Base: all respondents aged 16-64]



Qx: Please think back to the last time you rode with a driver you thought might have consumed too much alcohol to drive safely. Did you decide the driver was unsafe before or after you were riding in the motor vehicle?

[Base: aged 16-64 rode with driver who may have had too much alcohol to drive safely]

A chart showing sample bases for figures on this page can be found

Trends in Driving with and Being a Designated Driver

Have Ridden with Designated Driver in Past Year, Age 16-64

While the 1995 study showed a decline in the proportion of the driving age public age 16-64 who had ridden with a designated driver in the past year over the previous year, the 1997 survey shows riding with a designated driver has risen back to its 1993 level of 37% of persons age 16-64. The 1997 increase over the 1995 survey holds for all age groups and for both males and females. Younger persons, particularly those age 16 to 29 are significantly more likely than older persons to drive with a designated driver. [Figure 34-A].

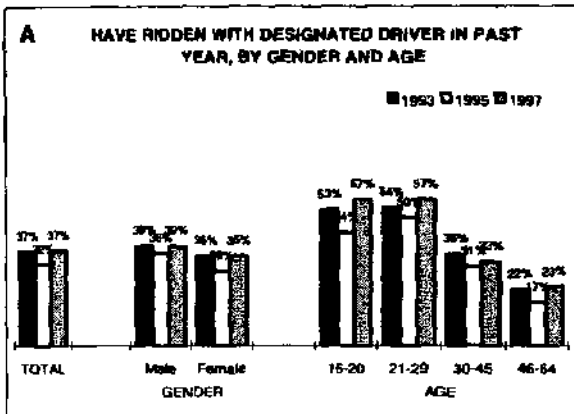
Have Been a Designated Driver in Past Year, Age 16-64

A significantly greater percentage of 16- to 64-year-old drivers report that they, themselves have been a designated driver in the past year in 1997 than was true in either 1993 or 1995. In 1997, fifty-two percent (52%) of all drivers age 16 to 64 report that they have been a designated driver at least once in the past year. This compares to 39% in 1995 and 42% in 1993. Reported levels of being a designated driver have increased among both men and women and among all age groups. Those in the 16- to 29-year-old groups are the most likely to report having been a designated driver in the past year. [Figure 34-B].

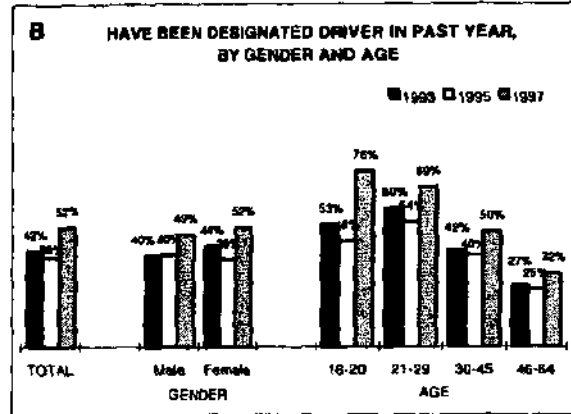
Number of Times Have Been Designated Driver in Past Year, Age 16-64

The average number of times drivers report acting as a designated driver have also increased significantly since 1991, with drivers reporting an average of 1.8 trips as a designated driver in 1997 as compared to 1.4 average trips in 1993. The average number of trips as a designated driver has increased significantly in most age groups and among both males and females. [Figure 34-C].

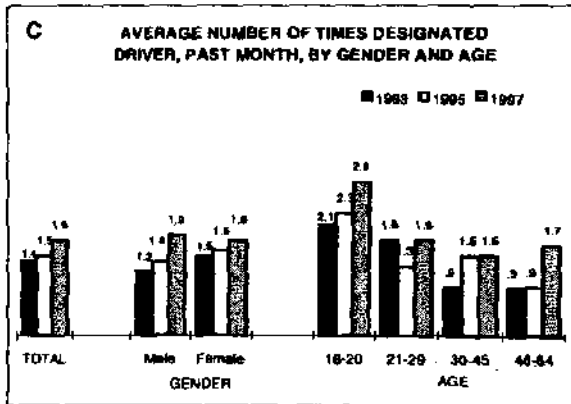
FIGURE 34: TRENDS IN DRIVING WITH AND BEING A DESIGNATED DRIVER



Qx: *In the past 12 months, have you ridden anywhere with someone else who agreed to be the designated driver?* [Base: all respondents aged 16-64]



Qx: *In the past 12 months, have you ever been the designated driver when driving with others?* [Base: drivers aged 16-64]



Qx: *In the past 30 days, how many times have you been a designated driver?* [Base: aged 16-64 have been designated driver in past year]

A chart showing sample bases for figures on this page can be found at the end of this section.

Trends in Attitudes about Threat of and Importance of Reducing Drinking and Driving

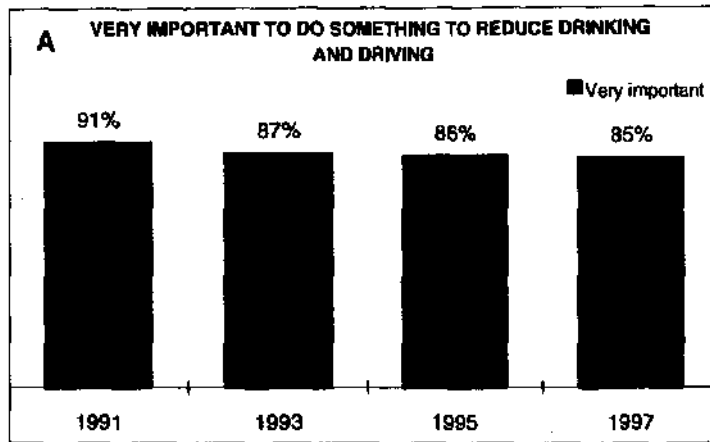
Importance of Doing Something to Reduce Drinking and Driving, Age 16-64

The overwhelming majority of the population age 16 to 64 feels that it is very important to do something to reduce drinking and driving. While 85% of those age 16 to 64 say this is very important, the perceived importance has declined somewhat from the 91% very important level reported in 1991. [Figure 35-A]. Perceptions of the importance of reducing drinking and driving is pervasive among all age groups and both males and females.

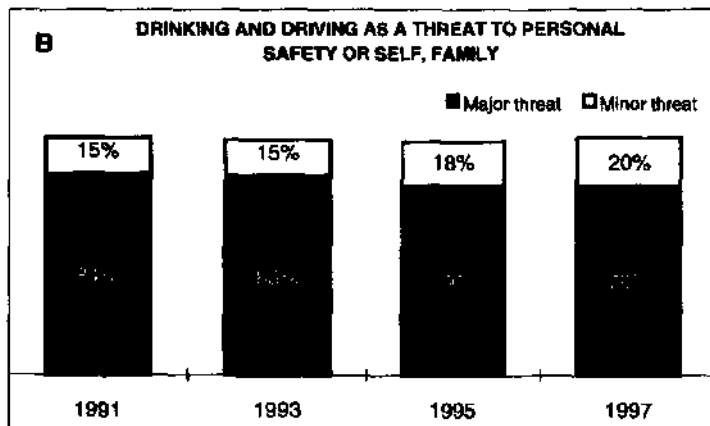
Perceptions of Drinking and Driving as a Threat to Personal Safety, Age 16-64

Overall, 79% of those age 16 to 64 feel that drinking and driving is a major threat to the personal safety of themselves and their family, while an additional 20% see it as at least a minor threat. The proportion of those saying drinking and driving is a "major" threat has decreased since 1991, with the largest drop coming between 1993 and 1995. [Figure 35-B].

FIGURE 35: TRENDS IN ATTITUDES ABOUT THREAT OF AND IMPORTANCE OF REDUCING DRINKING AND DRIVING



Qx: *How important is it that something be done to reduce drinking and driving? Is it very important, somewhat important or not important?* [Base: all respondents aged 16-64]



Qx: *In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family? Would you say it is a major threat, a minor threat, or not a threat?* [Base: all respondents aged 16-64]

A chart showing sample bases for figures on this page can be found at the end of this section.

Trends in Attitudes about Drinking and Driving

Drinking-Drivers Problem Drinkers, Age 16-64

Nearly six in ten (57%) persons age 16 to 64 agree with the statement that most people who drive after drinking too much are alcoholics or problem drinkers. The proportion of people who "strongly agree" with this notion is significantly higher in 1995 and 1997 than it was previously. However, the overall proportion of those who agree strongly or somewhat with this view shows no clear pattern over the four study waves. [Figure 36-A].

Non-Problem Drinkers as a Serious Highway Safety Problem, Age 16-64

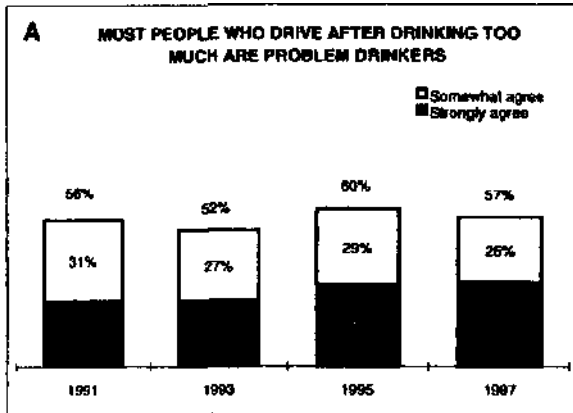
Overall, about 92% of those age 16 to 64 believe that drinking and driving by people who are NOT problem drinkers or alcoholics is a serious highway safety problem. Nearly three of four (73%) strongly agree with this notion. The percentage that agree with this statement increased in 1997 over previous measures. [Figure 36-B].

Should People Be Allowed to Drive if They Have Been Drinking at All, Age 16-64

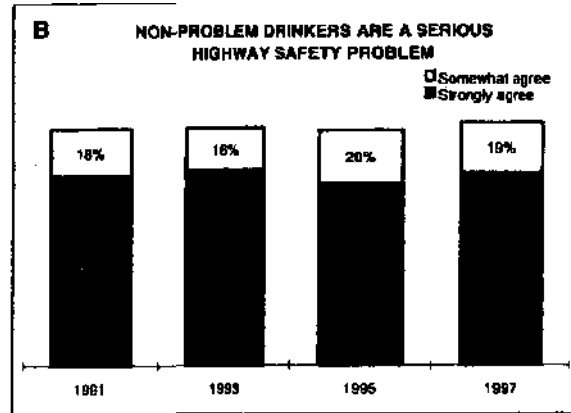
Overall, three of four (76%) persons age 16 to 64 agree with the view that people should not be allowed to drive if they have been drinking at all. About one in five strongly agree with this view, while about 55% say they agree somewhat. This belief has held constant since the 1991 baseline when 77% agree somewhat or strongly. [Figure 36-C].

FIGURE 36: TRENDS IN ATTITUDES ABOUT DRINKING AND DRIVING

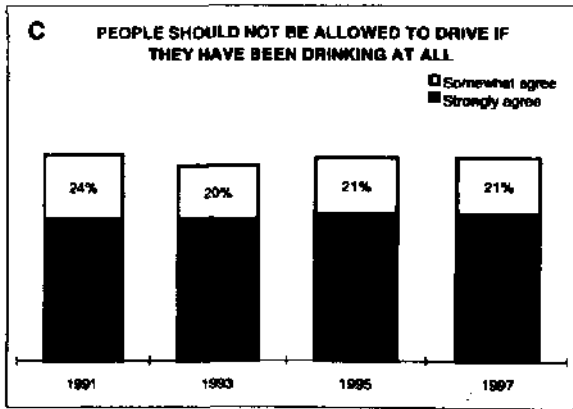
Qx: For each of the following statements, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree. [Base: all respondents]



Qx: Most people who drive after drinking too much are alcoholics or problem drinkers.



Qx: Drinking and driving by people who are NOT alcoholics or problem drinkers is a serious highway safety problem.



Qx: People should not be allowed to drive if they have been drinking at all.

A chart showing sample bases for figures on this page can be found at the end of this section.

Trends in Perceptions about Enforcement and Penalties

More Likely to be Stopped By Police or Get in a Crash if Drinking and Driving? Age 16-64

About two thirds of those age 16 to 64 believe that if a person drinks too much and then drives, that he or she will be more likely to get in a crash than be stopped by the police. This perception has held fairly constant since first being measured in 1993. [Figure 37-A].

Likelihood of Being Stopped By Police if Driving After too Much to Drink, Age 16-64

Overall, 36% think that it is very likely to almost certain that they will get stopped by the police if they are driving after having too much to drink. An additional 28% feel it is somewhat likely that they would get stopped by police in this circumstance. Perceptions of the likelihood of drinking-drivers getting stopped has remained consistent since 1991. [Figure 37-B].

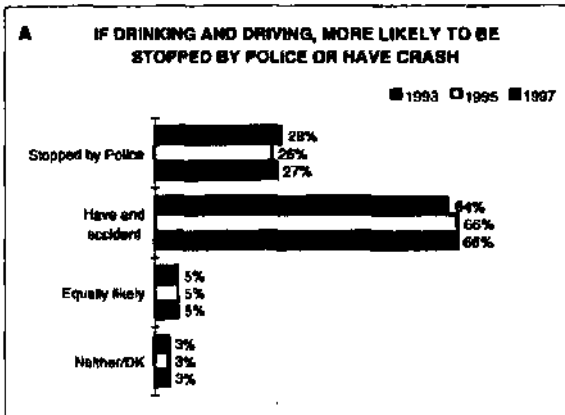
Likelihood of Receiving Punishment if Charged with Drinking and Driving, Age 16-64

There has been a slight decrease in the percentage of driving age adults (16 to 64) who feel "almost certain" that someone who is charged with breaking the drinking and driving laws will be punished since 1993. Currently, 47% are almost certain that such a person would receive punishment, while 52% held this belief in 1993. [Figure 37-C].

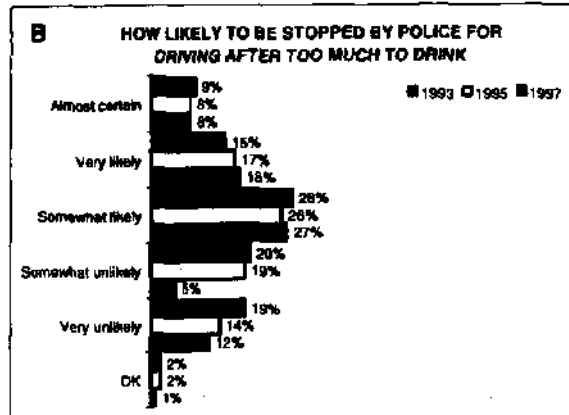
Likely Severity of Punishment if Charged with Drinking and Driving, Age 16-64

There has been a strong decline in the perception that if actually punished for drinking and driving, the punishment would be very severe. Twenty-eight percent (28%) of those age 16 to 64 believe that such punishment would be severe in 1997 as compared to 24% who held this belief in 1993 and 31% who did so in 1995. Currently, people are more likely to feel that the punishment will be somewhat severe than in the past. [Figure 37-D].

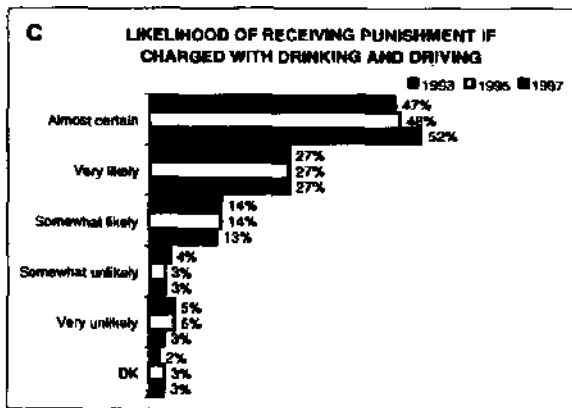
FIGURE 37: TRENDS IN PERCEPTIONS ABOUT ENFORCEMENT AND PENALTIES



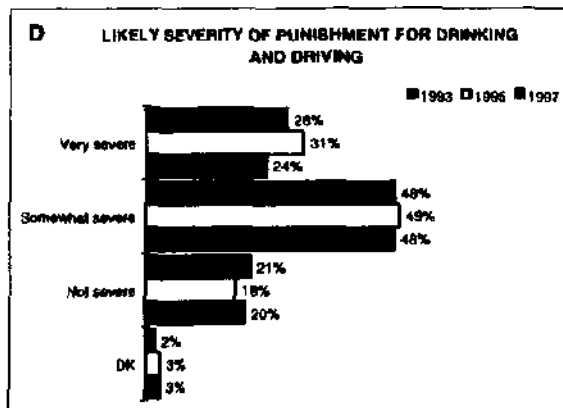
Qx: In your community, if a person drinks too much before driving (and then drives), which do you think is more likely to happen to them - being stopped by the police or being involved in a crash? [Base: all respondents aged 16-64]



Qx: How likely are you to be stopped by a police officer for driving after you have had too much to drink? (Base: all respondents aged 16-64)



Qx: If a police officer stops you and charges you with breaking the drinking and driving laws, how likely are you to receive some sort of punishment such as a fine, a suspension of your driver's license, or something more severe? [Base: all respondents aged 16-64]



Qx: If you were actually punished for drinking and driving, do you think the punishment would most likely be severe, somewhat severe, or not severe? [Base: all respondents aged 16-64]

A chart showing sample bases for figures on this page can be found at the end of this section.

Trends in Perceptions about Severity and Effectiveness of Laws and Penalties

Likely Punishment for First Offense, Age 16-64

Larger proportions of those age 16 to 64 believe First time drinking and driving offenders will receive a fine or a restricted or suspended license as punishment than was true in 1993 or 1995. About six in ten people cite a fine while 50% say that their license will be suspended or restricted (multiple mentions were allowed). [Figure 38-A].

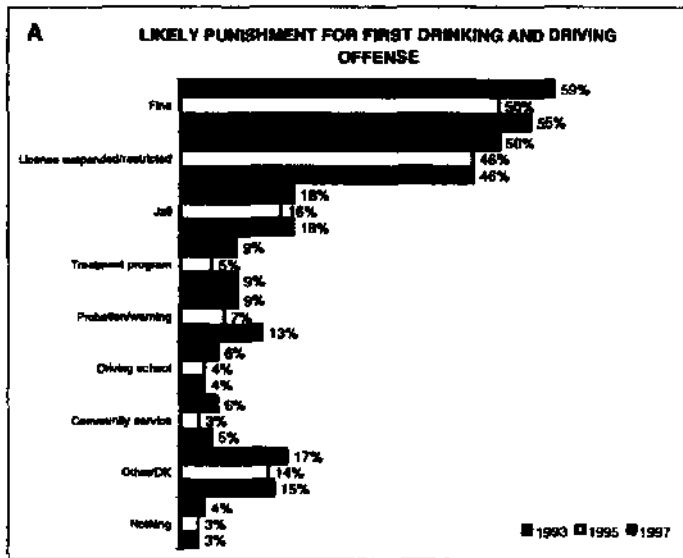
Should Penalties be More or Less Severe? Age 16-64

Perceptions of the needed severity of penalties for those who violate drinking and driving laws have changed over the past three survey administrations. People are much less likely to feel that drinking-driving penalties should be much more severe than was true in 1995 and 1993. Currently, 43% feel such penalties should be made much more severe, as compared to 46% in 1995 and 37% in 1993. The driving age public (16 to 64) are more likely currently to think laws should be somewhat more severe than was true in 1995. [Figure 38-B].

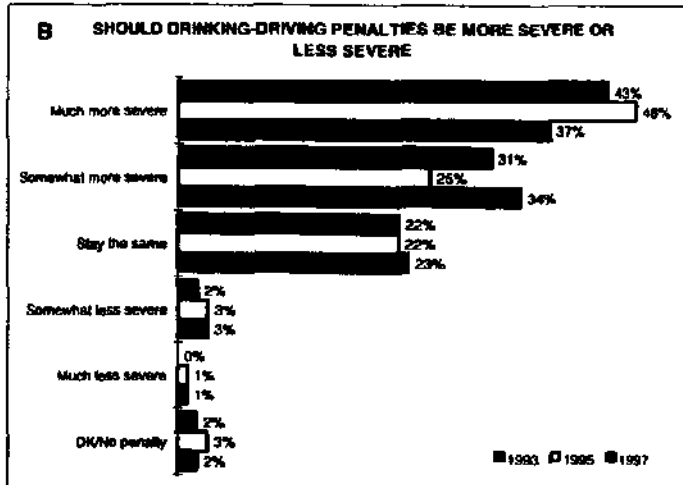
Perceived Effectiveness of Current Laws and Penalties, Age 16-64

The decline in the perception that drinking-driving penalties need to be much more severe maybe an outcome of the public's increased belief that current laws and penalties are at least somewhat effective (or that laws and penalties have become more severe). Currently, 48% of those age 16 to 64 feel that these laws and penalties are somewhat effective, as compared to 50% in 1995 and 53% in 1993. Just slightly more than one in ten continue to believe that these laws and penalties are "very effective." [Figure 38-C]

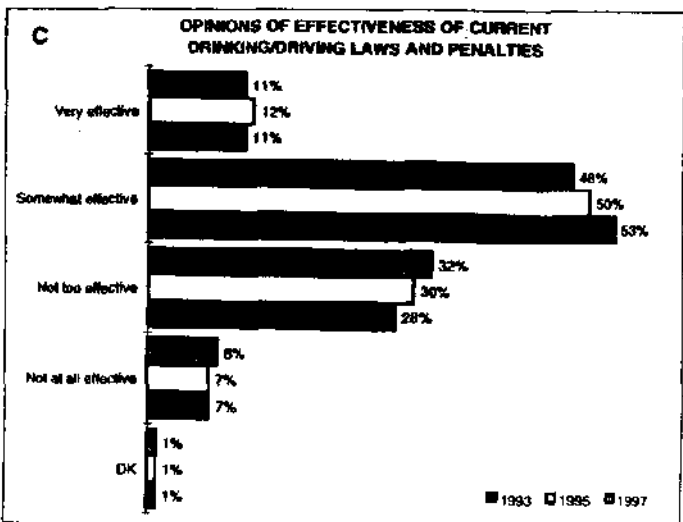
FIGURE 38: TRENDS IN PERCEPTIONS ABOUT SEVERITY AND EFFECTIVENESS OF LAWS AND PENALTIES



Qx: *What would most likely happen to a driver the first time he or she was punished for drunk driving?*
 [Base: all respondents aged 16-64]



Qx: *in your opinion, should the penalties that are given out to drivers who violate the drinking and driving laws be...?*
 [Base: all respondents aged 16-64]



Qx: *In your opinion, how effective are current laws and penalties at reducing drinking and driving?*
 [Base: all respondents aged 16-64]

A chart showing sample bases for figures on this page can be found at the end of this section.

Trends in Perceptions about Sobriety Checkpoints

Should Sobriety Checkpoints Be Used More or Less Frequently?

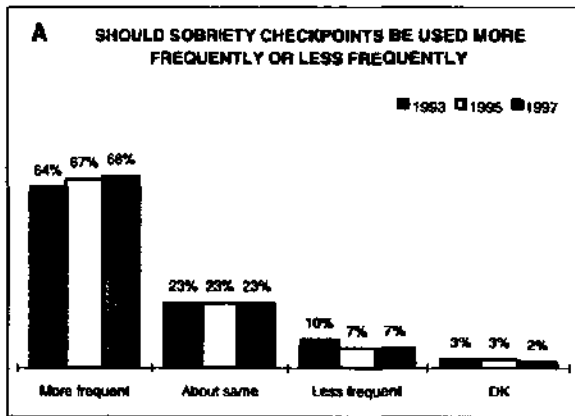
Total Persons, Age 16-64

There is somewhat greater support for more frequent use of sobriety checkpoints in 1997 than was found in 1993. More than two-thirds (68%) feel that sobriety checkpoints should be used more frequently as compared to 64% who felt this way in 1993. A consistent proportion of about one-quarter, feel the frequency should remain at current levels. [Figure 39-A]. There has been no significant change in the percentage of those age 16 to 64 who say they have been stopped by a sobriety checkpoint (about 29% have).

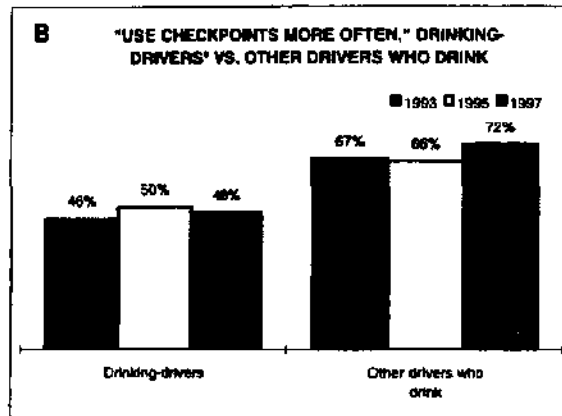
Drinking-Drivers, Age 16-64

While there is no difference in perception of using checkpoints more frequently among those who have driven within two hours of drinking in the past year, there has been an increase in the support of more frequent checkpoint use among drivers who drink, but who have not driven within two hours of drinking. Two of three drivers who drink but do not drive after drinking supported more frequent use of check-points in 1993 and 1995, while about 72% support more frequent use in 1997. [Figure 39-B].

FIGURE 39: TRENDS IN PERCEPTIONS ABOUT SOBRIETY CHECKPOINTS



Qx: Do you think sobriety checkpoints should be used more frequently, about the same as they are now, or less frequently? [Base: all respondents aged 16-64]



Qx: Do you think sobriety checkpoints should be used more frequently, about the same as they are now, or less frequently? [Base: aged 16-64 specified in the chart]

*Drinking-drivers: Drove within two hours after drinking in the past year.

A chart showing sample bases for figures on this page can be found at the end of this section.

Trends in Indicators of Potential Problem Drinking

A series of questions was added to the 1993 survey to help identify problem drinking. This series of four questions is represented by the acronym "CAGE" (Ewing, 1998): "Have you felt you should cut down on your drinking? ("C" for "cut down"); "Have people annoyed ("A") you by criticizing about your drinking?"; "Have you felt bad or guilty ("G") about your drinking?"; "Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover?" ("E" for "eye-opener").

Should Cut Down on Drinking

The percentage of the past-year drinkers (16-64) who say they feel they should cut down on their drinking increased between 1993 and 1995, from 12% to 18%, and remains near the 1995 level with 17%. [Figure 40-A].

People Annoyed About Drinking

There is a small increase in the percentage of past year drinkers who say they have been annoyed by people criticizing them about their drinking in 1997 to about 6% of all drinkers, up from 4% previously. The increases are primarily among males and those age 16-20. [Figure 40-B].

Felt Bad or Guilty About Drinking

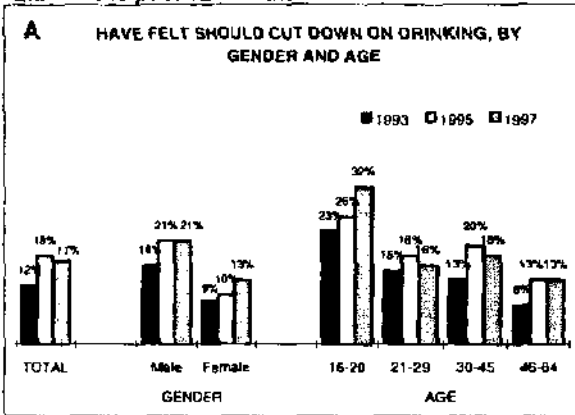
Changes in the percentage saying they have felt bad or guilty about their drinking are negligible. There seems to be trend towards an increase in agreement with this statement among 16- to 20-year-olds, which should continue to be monitored in future, surveys. [Figure 40-C].

Had a Drink First Thing in the Morning

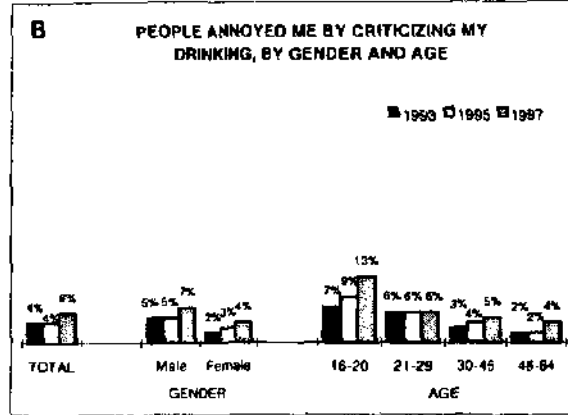
Changes in the percentage saying they have had a drink first thing in the morning to steady their nerves or get rid of a hangover are negligible. [Figure 40-D].

FIGURE 40: TRENDS IN INDICATORS OF POTENTIAL PROBLEM DRINKING

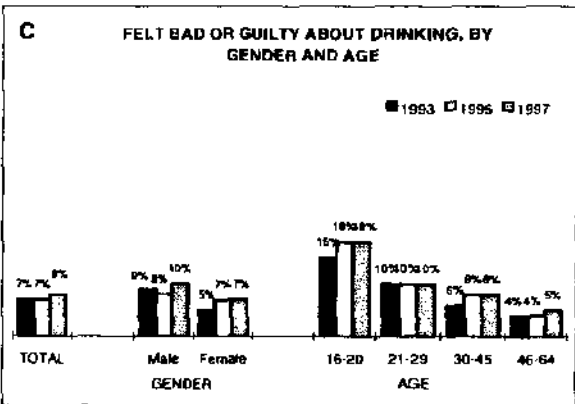
Qx: "In the past 12 months..."



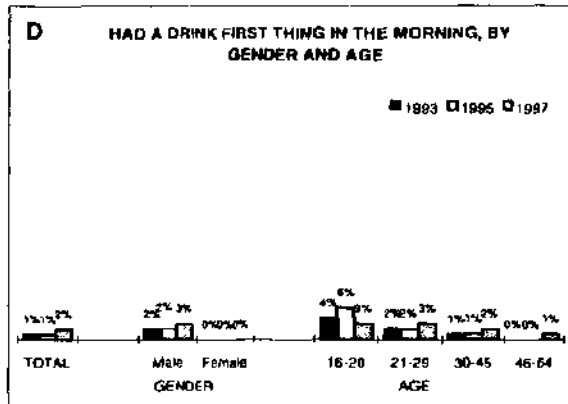
Qx: ...have you felt you should cut down on your drinking? [Base: drank alcohol, past year, aged 16-64]



Qx: ...have people ever annoyed you by criticizing your drinking? [Base: drank alcohol, past year, aged 16-64]



Qx: ...have you felt bad or guilty about your drinking? [Base: drank alcohol, past year, aged 16-64]



Qx: ...have you had a drink first thing in the morning to steady your nerves or get rid of a hangover? [Base: drank alcohol, past year, aged 16-64]

A chart showing sample bases for figures on this page can be found at the end of this section.

Figure 41: Unweighted Sample Sizes for Figures in Trend Section

Table for Figures 29, 30, 32, 33, 34, 35, 36, 37, 38 and 39:

TOTAL ADULTS 16-64											
	Total 16-64	Gender		Age					Drinking -drivers	Other drivers who drink	Total drivers who drink.
		Male 16-64	Female 16-64	16-20	21-29	30-45	46-64	65+			
1991	2406	1036	1370	268	583	928	627	0	642	692	1578
1933	3590	1812	1778	617	1183	1125	665	381	1048	1445	2493
1995	3471	1763	1708	946	527	1154	844	507	767	1159	1926
1997	3358	1500	1858	282	588	1412	1076	629	878	1336	2214

TOTAL ADULTS 16-64, Drank Alcohol Past Year											
	Total 16-64	Gender		Age					Drinking -drivers	Other drivers who drink	Total drivers who drink
		Male 16-64	Female 16-64	16-20	21-29	30-45	46-64	65+			
1991	1633	759	874	150	451	681	351	0	642	692	1578
1933	2493	1419	1243	331	915	832	415	166	1048	1445	2493
1995	2017	1419	1243	400	374	760	483	187	767	1159	1926
1997	2291	1120	1171	149	459	1019	664	277	878	1336	2214

TOTAL ADULTS 16-64, Drove within 2 Hours of Drinking, Past Year									
	Total 16-64	Gender		Age					
		Male 16-64	Female 16-64	16-20	21-29	30-45	46-64	65+	
1991	642	304	338	57	155	266	164	0	
1933	1048	<i>in</i>	326	83	414	390	161	68	
1995	767	529	238	87	167	320	193	56	
1997	878	568	292	34	200	400	244	79	

Appendix A

Methods

In order for tracking survey of this nature to be accurate it must be statistically valid in its own right, and the multiple years of data collection must be compatible. This section describes the aspects of the method that relate to these requirements:

- Sample design and sample frame construction (respondent universe and sampling methods)
- Data collection
- Sample execution
- Sample weighting, and
- Sampling tolerances

The sample design and execution of the 1993, 1995 and 1997 survey administrations closely followed the same methodological procedures to ensure compatibility. As noted earlier, the 1991 study only included persons age 16 to 64 (excluding those 65 and older).

The respondent universe theoretically consists of all persons of driving age (age 16 or older as of their last birthday). However, since this survey, as well as the three earlier executions, was administered by telephone, the sampling universe is in truth persons age 16 or older living in non-institutionalized dwellings with working telephones (approximately 200 million according to the U.S. Census Bureau estimates). Furthermore, since interviews were conducted only in English and Spanish, any person who does not speak one of these two languages was excluded from this study. The study sample was selected from all telephone households in the United States, including Alaska and Hawaii, and included both drivers and non-drivers.

Statistical Sampling Methods

This study employed a multi-stage sampling procedure to achieve a random, representative sample of the driving public age 16 or older. The design employed by Gallup included a stratified Casady-Lepkowski Random-Digit-Dial (RDD) sample design, which resulted in a sample that was consistent with earlier rounds of the study. It was very important to maintain a consistent sampling structure with earlier execution in order for the samples to be comparable across time.

First, the universe of residential telephone listings was identified within each of the geographic U.S. Census regions. Gallup then drew a systematic sample of telephone number banks within each region. A telephone number bank consists of the blocks of 100 sequential telephone numbers where only the last two digits of the 10-digit telephone number vary. For example, within the area code 202, exchange 366, one bank would be 202-366-12XX. This procedure provides for an equal probability of selection for each working residential telephone number in the U.S. (both listed and unlisted residential telephone households). A random-digit-dial (RDD) procedure was used to generate the last two numbers for a full ten-digit phone number within each selected 100-number bank

The second stage of selection occurred at the household level. Once a telephone number had been selected for inclusion, one person age 16 or older living in that household was randomly selected to participate. The household-level selection was made using the most recent birthday method, which represents a true random selection of household members, and is considered much less intrusive than the purely random selection method or grid selection that require enumeration of all household member in order to make a respondent selection. Once a person was selected for inclusion in the study, that person could not be replaced by another person in the household. If the selected person refused to participate, Gallup employed refusal conversion attempts to obtain the responses from the selected person. If refusal conversion attempts failed, the entire household was substituted to maintain the representativeness of the sample.

Data Collection

Gallup completed telephone interviews with 4,010 persons age 16 or older living in the United States. Interviewing took place over a three-month period of October 12 through December 12, 1997. A total of 78 of these 4,010 interviews were completed in Spanish using a Spanish-language version of the questionnaire.

All sample management, interview scheduling, conducting and monitoring of interviews, and progress reporting of data collection was handled by Gallup's state-of-the-art computer assisted telephone interviewing (CATI) system. A comprehensive data collection plan was maintained to ensure that high response rates, high data quality and low respondent burden were achieved. The plan involved a call design scheme to optimize telephone coverage and contact with respondents, and to minimize no contacts and refusals. Gallup's internal interviewer recruitment, training and monitoring procedures are also designed to support these aims for this and all studies conducted by Gallup.

The CATI programming process included identification of data locations, keying in question text, responses and corresponding codes, as well as acceptable response ranges, consistency checks, interviewer instructions, skip patterns, and help screens. Two kinds of range and consistency checks were programmed: hard and soft checks. Responses initially entered by interviewers that were outside the hard range were not accepted by CATI. These required the interviewer to clarify with the respondent their initial response (e.g., if the question asked

how many days of the past 30 they consumed alcohol, a response of 31 would not be accepted by the CATI system). Soft range checks prompt the interviewer to verify the response. The questionnaire design and layout pass through a strict internal hard copy "proofing review" before it reaching the programming stage. The CATI program was once again proofed before interviewing began. Separate questionnaires were programmed in both English- and Spanish-language.

Interviewing Execution

Once a telephone number was selected for inclusion, an interviewer made an initial call to reach the household. If no one answered, or no person age 16 or older was available at the time of the first call, up to six additional calls (over different days and time periods as presented below) additional were made to reach the selected household and to randomly select a respondent. A total of up to seven calls were made to complete the interview with the designated respondent. This "seven plus seven" call design was used in order to attain a high response rate.

Because the number of contacts attempted and the not-at-home patterns of households are key factors in determining response rates, an aggressive call design is important. The following call schedule, which applied to both the initial contacts for selection of a designated respondent and subsequent calls for completion of the interview, was used:

	Calling Period <i>Respondent's Local Time</i>	Number of Attempts
Weeknights:	5:00 p.m. to 7:59 p.m.	2
Weeknights:	8:00 p.m. to 9:59 p.m.	2
Weekends:	Saturday 11:00 a.m. to 5:00 p.m.	3
	Sunday 1:00 p.m. to 4:00 p.m.	

All interviewers assigned to the project underwent a training specific to this project. Representatives from NHTSA were invited to be part of this briefing. Remote monitoring of telephone interviewing, was also available for external monitoring of interviews.

Gallup's Assurance of Confidentiality to Respondents. Describe any assurance of confidentiality provided to respondents.

All data was collected by The Gallup Organization. Respondents were told at the onset of the interview that the data was strictly confidential and any identifying information would not be released outside of the organization. All interviewers signed statements of confidentiality stating that they would not reveal the results of any interview with anyone else. The name of the respondent was not collected during the course of the interview, and the telephone number was separated from the survey data before analysis and will not be connected to the data released to NHTSA or any other outside organization. All questionnaires, other records, and database entries were identified by case identification numbers only. The Gallup Organization has a reputation for integrity and has never encountered an instance of breach of confidentiality in its more than 60 years of operation.

Sample Execution/Response Rates

Response rates are one measure of the extent to which a data set accurately reflects the characteristics and responses of a given population. Two factors whose underlying causes may be substantially different, drive non-response rates: non-contacts and non-interviews (i.e., refusals). Each of these can lead to sample bias if a group or type of potential respondent is systematically missed (e.g., people who are not at home and are hard to reach, young people, males, etc.).

No Contact: The largest influence on no contact non-response appears to be the number of call attempts. In an analysis of multiple data sets from a variety of research firms, it was found that the only methodological variable in a stepwise regression model predicting non-contact rate was number of call attempts. The manner in which sample is released into a carefully planned call design ensures multiple attempts for each sample component.

The not-at-home patterns of a given population are also important to consider in order to maximize the probability of contact during repeated attempts. Gallup's call design maximizes the probability of reaching respondents over a variety of days of the week and times of day.

Refusals: Refusals appear to be increasing and tend to account for a major proportion of non-responders with the potential for non-response bias. Although the reasons are unclear, the immense expansion of telemarketing activities, a possible tendency toward greater resistance to perceived intrusions into the privacy of one's home, and the increasing telephone saturation among certain market segments of the population, may all contribute. Because of the prominence of the Gallup name, and the skill of its interviewing staff, our refusal rate remains below the industry average.

At Gallup, an interaction with a respondent is only coded as a refusal if an interviewer has encountered two 'soft refusals' after a description of the study (e.g., "I am really not interested" or "I'm too busy to talk to you now") or a hard refusal (e.g., "I'm not interested, don't call again" or "No, I don't want to do it!"). Any case where the person hangs-up before the interviewer can complete the introduction describing the project will be called back at least once.

All cases coded as initial refusals underwent at least one refusal conversion attempt. In this stage, the case was assigned to a different interviewer than the one who made the initial call.

If the second interviewer encountered a second hard refusal, the case was assigned to a special refusal conversion team of interviewers. The initial and second refusal cases were monitored on a weekly basis to determine if special troubleshooting refusal conversion teams will be necessary.

In calculating response rates, Gallup follows the strict industry standard of the Council of Applied Survey Research Organizations (CASRO). The calculation of a CASRO response rate is as follows:

Completed interviews divided by the number of eligible households plus the presumed eligible households (of non-contacted households).

The CASRO response rate for the 1997 study execution was 40.8%. In comparison, the CASRO response rate for the 1995 execution was 39.8% and in 1993, 37.3%. CASRO response rates near 40% are generally standard for national probability samples. The 1993, 1995 and 1997 executions of this study achieved response rates at or above the current industry average.

A total of 10,464 randomly generated telephone numbers were sampled for this study according to the parameters outlined above. About 19% (1999) of the numbers were non-residential, while about 13% (1377) were confirmed non-working or disconnected numbers.

The sample disposition of all records appears below:

Total numbers used	14787
Working numbers	10464
Disconnect/Not in Service	1377
Non-target (business, institutions)	1999
Deaf/language barrier	223
Health/other non-interview	280
Screen failure	373
Call-back -screening complete	72
Over 7 attempts made	947
No answer	1377
Busy	112
Answering machine	536
Refusal	2108
Terminates	96
Total contacted	8439
Total eligible	4178
Completes	4010

Sample Weighting

Weighting occurred in multiple stages and was designed to equalize selection probabilities at both the household and individual levels as well as adjust for non-response bias by demographics. Each step was made using data weighted from the previous step.

All data was post-stratify weighted to correct for the imposed disproportional sample and to adjust for any disproportionality by age, gender, and race due to selecting just one person within a household (clustering effect) and unequal participation rates. The weighting was conducted in a three-stage procedure. In the first stage weighting, Gallup adjusted for the unequal probability of selection for households. In the RDD procedure, households with more than one telephone line had a higher probability of selection in our sample. This disproportionality was corrected by applying an inverse weight to each respondent based on the number of residential telephone lines in his/her household.

The second stage weighting adjusted for any unequal probability of selection within a household. While the study is based on the total non-institutionalized residential population of the U.S., the actual sample units are households. Persons living in households with only one person of driving age have a higher probability of selection than those in households with several eligible persons. In the second stage weight, Gallup applied a weight to each respondent in the inverse to the number of persons of driving age in the household.

The third stage weight corrected for any unintentional disproportionality due to unequal participation rates among respondents by key demographic characteristics. At this stage, Gallup weighted the actual respondent database (weighted in the first two stages) to match the known demographic characteristics of the U.S. population by age, race, and gender based on the most recent Census Population Projections. This demographic weighting is done in several stages.

The proportion of Hispanics/non-Hispanics were first adjusted to reflect the most recent Census Bureau estimates by census region. White/non white distributions were then reviewed by census region and adjusted if necessary. The data were then examined and the distribution of gender by age (using three age categories (16-34;35-54;55+) corrected if more than +/- 3% variation from the population projections by census region.

The resulting weighted survey data distributions and that of the total non-institutionalized U.S. population age 16 and older appears in the table below:

	<i>Total Non-institutionalized U.S. Population Age 16+</i>		<i>Final Weighted Data for 1997 Drinking-Driving Survey</i>	
	Population in 1000s	% of Total	Unweighted Sample Size	Weighted % of Total
TOTAL	207,594	100%	4,010	100%
Male	99,933	48	1,734	48
Female	107,660	52	2,276	52
16-24	32,981	16	559	17
25-34	38,757	19	778	19
35-44	44,390	21	895	20
46-54	34,520	17	726	17
55-64	22,662	11	433	12
65f	34,284	17	619	16

Sampling Tolerances

In interpreting survey results, it should be borne in mind that all sample surveys are subject to various types of potential errors. Errors may occur due to non-response (where selected respondents are never reached or refuse to participate), interviewer administration error (where a response can be mis-keyed or misinterpreted by the interviewer), incomplete or inaccurate answers from the respondent or sampling less than the total population, among others.

The sampling design employed in this study was used to produce an unbiased estimate of the stated target population. An unbiased sample will have the same characteristics and behaviors as those of the total population from which it was drawn. In other words, with a properly drawn sample, we can make statements about the target population within a specific range of certainty. Sampling errors can be estimated and their measure used to help interpret the final data results. The size of such sampling errors depends largely on the number of interviews and the complexity of the sampling design.

The confidence interval for sample estimates of population proportions at a level of 95% confidence, assuming a simple random sample without replacement is calculated using the following formula:

$$= z \sqrt{p(q)/(n-1)}$$

Where:

p = the proportion of the sample that exhibits a particular behavior or characteristic

q = (1-p)

n = the unweighted sample size

z = the standardized variable for a specific confidence level (for 95% level of confidence z is 1.96)

The sample of telephone households in this study was drawn as a simple random sample within each region. However, the stratification by region and the disproportionate sampling of persons within household introduces a design effect that could possibly suggest that the sample reflect other than a simple random sample.

To test the belief that the resultant sample approximated one of a simple random sample, the sampling errors were calculated under a stratified design and were compared to the sampling errors for the same measures and sample sizes under the assumption of a simple random sample. These sample error comparisons were made for 23 of the key measures in the study. The net impact over the 23 measures was found to be about a 10% wider band of confidence around the estimates gathered in the study. That is, if an estimate from a study conducted under a pure a simple random sample method had an error range of ± 1.5 . The more precise error range due to the more complex sampling method would be about $\pm 1.6\%$.

Since the data presented in this report are rounded to whole numbers, the incremental increase in the sampling error range generally did not translate into a wider band around the estimate. Given the relatively small average design effect, the table of expected sampling error ranges based on a simple random sample is a useful approximation of the precision of the sample estimates.

The following tables may be used in estimating the sampling error in any percentage in this report. They may be interpreted as indicating the approximate range (plus or minus the figure shown) within which the results of repeated sampling in the same time period could be expected to vary 95% of the time, assuming the same sampling procedures, the same interviewers, and the same questionnaire.

Table A shows how much allowance should be made for the sampling error around a single percentage estimate in the study.

Table A: Recommended Allowance for Sampling Error of a Percentage
In percentage points (at 95 in 100 confidence level)
 For percentages near

Sample Sizes Near	5/95% ±	10/90% ±	20/80% ±	30/70% ±	40/60% ±	50/50% ±
100	4.3	5.9	7.9	9.0	9.7	9.8
200	3.0	4.2	5.6	6.4	6.8	6.9
300	2.5	3.4	4.5	5.2	5.6	5.7
400	2.1	2.9	3.9	4.5	4.8	4.9
500	1.9	2.6	3.5	4.0	4.3	4.4
600	1.7	2.4	3.2	3.7	3.9	4.0
800	1.5	2.1	2.8	3.2	3.4	3.5
1,000	1.4	1.9	2.5	2.8	3.0	3.1
1,500	1.1	1.5	2.0	2.3	2.5	2.5
2,000	.96	1.3	1.8	2.0	2.1	2.2
2,500	.85	1.2	1.6	1.8	2.0	2.0
3,000	.78	1.1	1.4	1.6	1.8	1.8
4,000	.68	.9	1.2	1.4	1.5	1.5

* The chances are 95 in 100 that the sampling error is not larger than the figures shown.

The table would be used in the following manner: Let us say a reported percentage is 30 for a group that includes about 300 respondents. Then we go to the column labeled "Percentages near 30/70%" in the table and go down to the row labeled "300." The number at this point is 5.2, which means that the 27% obtained in the sample is subject to a sampling error or ± 5 points. Another way of saying this is that 95 times out of 100 the true figure in the population would be somewhere between 25% and 35%.

In comparing survey results in two samples - for example, 1995 and 1997 - the question arises as to how large a difference between them must exist before one can be reasonably sure that it reflects a real difference. In Table B, the number of points, which must be allowed for in such comparisons, is shown.

Appendix B

Survey Instrument - English Language

CRT

FINANCE,DRI37639

AC5827

PROJECT REGISTRATION #114574

NHTSA

Washington, D.C.

National Drinking and Driving _____

September, 1997 n=4.000 _____

**STATE: (Code from "Fone" file) _____

- 01 Alabama - SC
- 02 Alaska - W
- 04 Arizona - W
- 05 Arkansas - SC
- 06 California - W
- 08 Colorado - W
- 09 Connecticut - NE
- 10 Delaware - SC
- 11 Washington D.C. - SC
- 12 Florida - SC
- 13 Georgia - SC
- 15 Hawaii - W
- 16 Idaho - W
- 17 Illinois - NC
- 18 Indiana - NC
- 19 Iowa - NC
- 20 Kansas - NC
- 21 Kentucky - SC
- 22 Louisiana - SC
- 23 Maine - NE
- 24 Maryland - SC
- 25 Massachusetts - NE
- 26 Michigan - NC
- 27 Minnesota - NC
- 28 Mississippi - SC
- 29 Missouri - NC
- 30 Montana - W
- 31 Nebraska - NC
- 32 Nevada - W
- 33 New Hampshire - NE
- 34 New Jersey - NE
- 35 New Mexico - W
- 36 New York - NE
- 37 North Carolina - SC
- 38 North Dakota - NC
- 39 Ohio - NC
- 40 Oklahoma - SC
- 41 Oregon - W
- 42 Pennsylvania - NE
- 44 Rhode Island - NE
- 45 South Carolina - SC
- 46 South Dakota - NC
- 47 Tennessee - SC
- 48 Texas - SC
- 49 Utah - W

50 Vermont - NE

- 51 Virginia - SC
- 53 Washington - W
- 54 West Virginia - SC
- 55 Wisconsin - NC
- 56 Wyoming - W

**REGION (Code from "Fone" file) _____

- 1 NE
- 2 SC
- 3 NC
- 4 W

Hello, this is
 from The Gallup Poll, calling on
 behalf of the U.S. Department of
 Transportation. We are conducting a
 study of American's opinions about
 current driving laws. The interview
 is completely confidential. It only
 takes about fifteen minutes.

SI. In order to select just one person to interview, may I speak to **the** person in the household, **aged 16** or older, who has had the most recent birthday?

- 1 Respondent on line-(**Continue**)
- 2 New respondent -(**Repeat Intro**)
- 3 (**DK**)-(**Thank and Terminate**)
- 4 (Refused)- **Thank and Terminate**)

1. How often do you usually drive a car or other motor vehicle? Would you say that you usually drive read 1-

- 1 Every day
- 2 Several days a week
- 3 Once a week or less
- 4 Only certain times a year, OR
- 5 Never
- 6 (**DK**)
- 7 (Refused)

(There are no #2-#3)

4. The following questions deal with attitudes about drinking alcoholic beverages and driving. For each of the following statements, please tell me whether you strongly agree, somewhat agree, somewhat disagree or strongly disagree. (Read and rotate A-E)

- 1 Strongly agree
- 2 Somewhat agree
- 3 Somewhat disagree
- 4 Strongly disagree
- 5 (DK)
- 6 (Refused)

A. Most people who drive after drinking too much alcohol are alcoholics or problem drinkers:

Drinking and driving by people who are NOT alcoholics or problem drinkers is a serious highway safety problem:

C. People should not be allowed to drive if they have been drinking any alcohol at all

D. I feel I should prevent someone I know from driving when I see they have had too much to drink:

E. Scientific evidence has shown that ANY amount of alcohol impairs driving:

(There are no #5-#14)

(INTERVIEWER READ:) Now, I'd like to ask you some questions about YOUR OWN behavior.

15. During the last twelve months, how often did you usually drink any alcoholic beverages, including beer, light beer, wine, wine coolers, or liquor? Would you say you (read 1-7)?

- 1 Every day
- 2 Nearly every day
- 3 Three or four days a week
- 4 One or two days a week
- 5 Two or three days a month
- 6 Once a month or less
- 7 (Never drank alcoholic beverages in last twelve months) - (Skip to "read" before #57)
- 8 (DK)
- 9 (Refused)

16. How many days in the past thirty

days have you consumed any alcoholic beverages? (Open ended and code actual number)

- 00 None
- 30 Everyday
- DK (DK) - (probe for estimate)
- RF (Refused)

(If drink alcohol in past year, continue, otherwise skip to "Interviewer Read" before #57).

17. When you drink alcoholic beverages, which ONE of the following beverages do you drink MOST OFTEN? Do you usually drink (read and rotate 06-10, then 01)?

(If respondent says "it varies", ask:) Which would you say you drank the most servings of in the past year?

- 01 OR, something else (list)
- 02 (DK)
- 03 (Refused)
- 04 HOLD
- 05 HOLD
- 06 Beer
- 07 Light beer
- 08 Wine
- 09 Wine coolers
- 10 Hard liquor or mixed drinks

18. When you drink [(response in #17)], about how many [(based on response in #17, say:)] 12-ounce regular beers/12-ounce light beers/12-ounce wine coolers/five-ounce glasses of wine/drinks or shots of hard liquor /drinks] do you usually drink per sitting? (Open ended and code actual number)

- 97 Less than one
- 98 (DK)
- 99 (Refused)

(There is no #19)

(INTERVIEWER READ:) People often drink different amounts of alcohol

depending on the time, place or occasion. On some days they may drink small amounts, on some days they may drink medium amounts, and on other days they may drink large amounts. Think about the days when you drank alcohol during a typical four-week period (28 days) in the past six months.

(NOTE TO INTERVIEWER: One standard drink is approximately 12 ounces (341ml) bottle of beer (9% alcohol), 1 1/2 ounce (43ml) shot of liquor (40% alcohol), 5 ounce (142ml) glass of wine (11% alcohol), 3 ounce (85ml) glass of Sherry, Port or Vermouth (18% alcohol)

20. On how many of the twenty-eight days in this typical four-week period did you have any alcoholic beverages to drink? (Open ended and code actual number)

- 00 None - (Skip to "Note" before #26)
- 28 Everyday (DK) (Skip to "Note" before #26) (Refused) (Skip to "Note" before #26)

Now, I would like to know how many drinks you had on the days that you did drink. First, of those (response in #20) days that you did drink, on how many days did you have only one or two drinks? (Open ended and code actual number)

- 00 None
- DK (DK)
- RF (Refused)

22. [Of the response in #20 minus response in #21 remaining days,] On how many did you have only three or four drinks? (Open ended and code actual number)

- 00 None
- DK (DK)
- RF (Refused)

23. [Of the response in #20 minus response in #21, minus response in #22 remaining days,] On how many did you have five or more drinks? (Open ended and code actual number)

- 00 None - (Skip to #26)
- 28 - (Continue)
- DK (DK) - (Skip to #26)
- RF (Refused) - (Skip to #26)

24. (If code "01-28" in #23, ask:) On the days when you had five or more drinks, how many drinks did you usually have on that day? (Open ended and code actual number) (NOTE TO SURVENT: Block "00-04")

- 97 97 or more
- DK (DK)
- RF (Refused)

25. (If code "01-28" in #23, ask:) What was the MAXIMUM number of drinks you had in any one day? (Open ended and code actual number)

- DK (DK)
- RF (Refused)

(If code drank alcohol in past year, Continue; Otherwise, Skip to "Interviewer Read" before #57)

26. Have you felt you should cut down on your drinking?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

27. Have people annoyed you by criticizing your drinking?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

28. Have you felt bad or guilty about your drinking?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

29. Have you had a drink first thing in the morning to steady your nerves or get rid of a hangover?

- 1 Yes
- 2 No

- 3 (DK)
- 4 (Refused)

(There is no #30)

(If drove in past year and if drank alcohol in past year, Continue:

Otherwise, Skip to "Interviewer Read" before #57)

31. How many [(if code "01", "02" or "03" in #17, say:) drinks/(if code "06" in #17, say:) 12-ounce regular beers/(if code "07" in #17, say:) 12-ounce light beers/(if code "09" in #17, say:) 12-ounce wine coolers/(if code "08" in #17, say:) five-ounce glasses of wine/(if code "10" in #17, say:) drinks or shots of hard liquor] could YOU drink in two hours before you should NOT DRIVE? (Open ended and code actual number)

- 00 Less than one drink
- 96 No limit
- DK (DK)
- RF (Refused)

- 000 None/Never (Skip to #52)
- DK (DK) (Skip to #52)
- RF (Refused) (Skip to #52)

35. (If code "001-365" in #34, ask:) In the past thirty days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages? (Open ended and code actual number)

- 00 None/Never
- DK (DK)
- RF (Refused)

(There is no #36)

37. (If code "001-365" in #34, ask:) Please think about the most recent occasion that you drove within two hours of drinking alcoholic beverages. Where did you drink on that occasion? (Open ended and code)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)
- 04 HOLD
- 05 HOLD
- 06 Your home
- 07 Friend's home
- 08 Other residence
- 09 Bar/Tavern
- 10 Restaurant
- 11 Work

(There is no #32)

DRINKING AND DRIVING

33. Now, I'd like to ask a few questions about your own experience. In the past twelve months, have you ever driven a motor vehicle WITHIN TWO HOURS AFTER drinking alcoholic beverages?

- 1 Yes - (Continue)
- 2 No - (Skip to #52)
- 3 (DK) (Skip to #52)
- 4 (Refused) (Skip to #52)

34. (If code "1" in #33, ask:) About how many times in the past twelve months would you say that you have driven WITHIN TWO HOURS AFTER drinking any alcohol? (Open ended and code actual number)

- 00 Less than one
- DK (DK)
- RF (Refused)

38. How many drinks did you have on that occasion? (Open ended and code actual number)

39. And, over what length of time did you have those drinks? (Open ended and code actual number of hours)

00 Less than one hour
DK (DK)
RF (Refused)

1 Well below the legal limit
2 Just below the legal limit,
OR
3 (Just over the legal limit)
4 Well over the legal limit
5 (DK)
6 (Refused)
7 (Just at the limit)

(There are no #50 and #51)

41. And, how long after your last drink did you start driving? (Open ended and code actual number of minutes) (SURVENT: Block "121-997")

000 Less than one minute/
Drove while drinking
120 120 minutes (two hours)
DK (DK)
RF (Refused)

52. About how many times in the PAST TWELVE MONTHS did you drive when you thought you were over the legal limit for alcohol? (Open ended and code actual number)

000 None/Never - (Skip to #54)
365 Every day
DK (DK) (Skip to #54)
RF (Refused) (Skip to #54)

42. What was your destination on this most recent occasion? (Open ended and code)

01 Other (list)
02 (DK)
03 (Refused)
04 HOLD
05 HOLD
06 Your home
07 Friend's home
08 Other residence
09 Bar/Tavern
10 Restaurant
11 Work

53. Thinking about the most recent occasion when you thought you may have drunk enough to place you over the legal limit, whether or not you drove, how many drinks did you have on that occasion? (Open ended and code actual number)

00 Less than one
DK (DK)
RF (Refused)

43. About how many miles did you drive on this occasion? (Open ended and code actual number of miles)

000 None
001 One or less than one mile
997 997 or more miles
DK (DK)
RF (Refused)

54. In the past twelve months, have you ever deliberately avoided driving a motor vehicle because you felt you probably had too much to drink to drive safely?

44. How many people, other than yourself, were in the vehicle with you? (Open ended and code actual number)

00 None
DK (DK)
RF (Refused)

(There are no #45-#48)

49. On this most recent occasion, do you think you were (read 1-2, then 4)?

- 1 Yes - (Continue)
- 2 No - (Skip to Interviewer Read" before #57)
- 3 (DK) - (Skip to Interviewer Read" before #57)
- 4 (Refused) - (Skip to "Interviewer Read" before #57)

{There is no #55}

56. (If code "1" in #54, ask:) On the most recent time that you deliberately avoided driving after drinking, how did you do it; that is, what did you do instead?
(Open ended and code)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)
- 04 HOLD
- 05 HOLD
- 06 Called a cab or ride
- 07 Rode the bus or subway
- 08 Rode with some other driver
- 09 Stayed overnight as a guest
- 10 Waited until after the effects of the alcohol wore off
- 11 Walked to your destination

DESIGNATED DRIVERS

(INTERVIEWER READ:) Now, I'd like to ask about riding with others who have been drinking.

57. In the past twelve months, did you ever RIDE in a motor vehicle with a driver you thought might have consumed TOO MUCH alcohol to drive SAFELY?

- 1 Yes - (Continue)
- 2 No (Skip to #61)
- 3 (DK) (Skip to #61)
- 4 (Refused) (Skip to #61)

{There is no #58}

59. (If code "1" in #57, ask:) Please think back to the last time you RODE with a driver you thought might have consumed TOO MUCH alcohol to drive SAFELY. Did you decide the driver was unsafe BEFORE or AFTER you were riding in the motor vehicle?

- 1 Before
- 2 After
- 3 (DK)
- 4 (Refused)

(There is no #60)

61. Now, I'd like to ask you about designated drivers. In the past year, how many times, if any, have you ridden anywhere with someone else who had agreed to be the designated driver? (Open ended and code actual number)

- 000 None - (Skip to #64a)
- 365 Every day
- DK (DK) (Skip to #64a)
- RF (Refused) (Skip to #64a)

62. (If code "001-365" in #61, ask:) On the most recent occasion that you RODE somewhere with a designated driver, how many drinks, if any, within the two hours prior to driving did the designated driver have before driving? (Open ended and code actual number)

- 00 None/Less than one
- 30 30 or more drinks
- DK (DK)
- RF (Refused)

(There is no #63)

64a. In the past thirty days, how many times have you been the designated driver? (Open ended and code actual number)

- 00 None - (Continue)
- 01-
- 30 Every day (Skip to #65)
- DK (DK) (Continue)
- RF (Refused) (Continue)

64b. (If code "00", "DK" or "RF" in #64a, ask:) How many times have you been a designated driver in the past year? (Open ended and code actual number)

- 000 None - (Skip to #66)
- 365 Every day
- DK (DK) (Skip to #66)
- RF (Refused) (Skip to #66)

65. (If code "01-30" in #64a or "001-365" in #64b, ask:) On the most recent occasion that you were the designated driver, how many drinks, if any, did you have in the two hours prior to driving? (Open ended and code actual number)

- 00 None/Less than one
- 97 97 or more
- DK (DK)
- RF (Refused)

66. What is the maximum number of drinks a person SHOULD HAVE if he or she is the designated driver? (Open ended and code actual number)

- 00 None/ Less than one
- 97 97 or more

DK (DK)
RF (Refused)

(There is no #67)

(INTERVIEWER READ:) I'd like you to think about the occasions in the past year when you had an opportunity to go someplace where you knew alcohol would be available.

68. How many times, if any, in the past year did you decide NOT to go someplace because you did not want to drive after drinking? (Open ended and code actual number)

000 None
365 Every day
DK (DK)
RF (Refused)

(There is no #69)

70. In the past year, how many times did you go someplace where alcohol was present, but decide NOT TO DRINK any alcohol because you wanted to avoid driving after drinking? (Open ended and code actual number)

000 None
365 Every day
DK (DK)
RF (Refused)

(There is no #71)

72. In the past year, how many times did you ever drive someplace, drink alcohol, and then NOT DRIVE afterward because you wanted to avoid driving after drinking? (Open ended and code actual number)

000 None
365 Every day
DK (DK)
RF (Refused)

(There is no #73)

74. How many times, if any, in the past year did you make arrangements ahead of time not to drive to a social event because you wanted to avoid driving after

drinking? (Open ended and code actual number)

000 None
365 Every day
DK (DK)
RF (Refused)

(There are no #75-#85)

HOSTING EVENTS

(INTERVIEWER READ:) Now, I'd like to ask you about social situations IN GENERAL.

86. Have you hosted a social event in the past year for adults in which you made alcoholic beverages available?

1 Yes - (Continue)
2 No - (Skip to "Interviewer Read" before #96)
3 (DK) - (Skip to "Interviewer Read" before #96)
4 (Refused) (Skip to "Interviewer Read" before #96)

87. Thinking about the most recent event you hosted where you made alcohol available, how concerned were you about having guests from your party driving home impaired? Would you say you were (read 1-2 4-5)?

1 Very concerned
2 Somewhat concerned
3 (Neither concerned nor unconcerned)
4 Not very concerned, OR
5 Not at all concerned
6 (DK)
7 (Refused)

(There are no #88-#94)

95. What, if anything, did you do to keep guests from driving home impaired? (Probe:) What else? (Open ended and code) (Probe for three responses)

01 Other (list)

- 02 (DK)
- 03 (Refused)
- 04 Nothing
- 05 HOLD
- 06 Have someone else drive them home
- 07 Have a taxi or ride service drive them home
- 08 Drive them home
- 09 Have them spend the night
- 10 Take their keys
- 11 Serve food
- 12 Serve non-alcoholic drinks
- 13 Serve less alcohol/Limit drink
- 14 Designate drivers
- 15 Collect keys
- 16 Provide sleeping accommodations
- 17 Drive them home
- 18 Limit serving hours

- DK (DK) (Skip to "Interviewer Read" before #103)
- RF (Refused) (Skip to "Interviewer Read" before #103)

100. (If code "001-365" in #99, ask:) Think of the MOST RECENT TIME you were in this situation. Did you do something to try to stop them from driving?

- 1 Yes - (Skip to #102)
- 2 No - (Continue)
- 3 (DK) (Skip to "Interviewer Read" before #103)
- 4 (Refused) (Skip to "Interviewer Read" before #103)

101. (If code "2" in #100, ask:) Why didn't you do something? (Open ended)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)

102. Did they drive anyhow?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

INTERVENTION

(INTERVIEWER READ:) Now, I'd like to ask you about situations where intervention may have been possible; that is, where someone could have been stopped from drinking and driving.

96. In the last year, how many times were you in a situation where you were with a friend who had too much to drink to drive safely? (Open ended and code actual number)

- 000 None - (Skip to "Interviewer Read" before #103)
- 365 Every day
- DK (DK) (Skip to "Interviewer Read" before #103)
- RF (Refused) (Skip to "Interviewer Read" before #103)

(There are no #97 and #98)

99. (If code "001-365" in #96, ask:) How many of those (response in #98) times did you do something to try to stop them from driving? (Open ended and code actual number)

- 000 None - (Skip to "Interviewer Read" before #103)
- 365 Every day

SOCIAL PUNISHMENT

(INTERVIEWER READ:) Now, I'd like to ask you about how you view the general problem of drinking and driving.

103. In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family? Would you say drinking and driving by others is (read 1-3)?

- 1 A major threat
- 2 A minor threat, OR
- 3 Not a threat
- 4 (DK)
- 5 (Refused)

104. How important is it that something be done to reduce drinking and driving? Is it (read 1-3)?

- 1 Very important
- 2 Somewhat important, OR
- 3 Not important
- 4 (DK)
- (Refused)

105. In your community, if a person drinks too much before driving (and then drives), which do you think is more likely to happen to them - being stopped by the police, or being involved in a crash?

- 1 Being stopped by police
- 2 Being involved in a crash
- 3 (Neither)
- 4 (Equally likely)
- 5 (DK)
- 6 (Refused)

105a. In your opinion, what percent of drivers who are impaired by alcohol (and then drive) will (read and rotate A-B)? (Open ended and code actual percent)

- 000 None
- 100 100%/All
- DK (DK)
- RF (Refused)

- A. Get stopped by the police:
- B. Have a crash:

#107)

(INTERVIEWER READ:) Please tell me how likely each of the following events are to happen IF YOU DROVE AFTER HAVING TOO MUCH TO DRINK.

106. How likely are you to be stopped by a police officer for driving after you have had too much to drink? Is it (read 1-5)?

- 1 Almost certain
- 2 Very likely
- 3 Somewhat likely
- 4 Somewhat unlikely, OR
- 5 Very unlikely
- 6 (DK)
- 7 (Refused)

108. If a police officer stops you and

charges you with breaking the drinking and driving laws, how likely are you to receive some form of punishment such as a fine, a suspension of your driver's license, or something more severe? Is that (read 1-5)?

- 1 Almost certain
- 2 Very likely
- 3 Somewhat likely
- 4 Somewhat unlikely, OR
- 5 Very unlikely
- 6 (DK)
- 7 (Refused)

109. If you were actually punished for drinking and driving, do you think the punishment would most likely be (read 1-3)?

- 1 Very severe
- 2 Somewhat severe, OR
- 3 Not severe
- 4 (DK)
- 5 (Refused)

110. What would most likely happen to a driver the FIRST TIME he or she was punished for drunk driving? (Probe:) What else? (Open ended and code) (Probe for three responses)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)
- 04 Nothing
- 05 HOLD
- 06 Probation
- 07 License restricted
- 08 License suspended for a period
- 09 Being fined under \$500
- 10 Being fined over \$500
- 11 Going to jail
- 12 Placed in a treatment program
- 13 Community service

111. In the past twelve months, have you been stopped by a police officer who suspected you of drinking and driving?

- 1 Yes - (Continue)
- 2 No (Skip to #116)
- 3 (DK) (Skip to #116)

4 (Refused) (Skip to #116)

112. (If code "1" in #111, ask:) How many times in the past twelve months have you been stopped for possible violation of drinking and driving laws? (Open ended and code actual number) (NOTE TO SURVENT: Block "31-97")

00 None
30 30 or more times
DK (DK)
RF (Refused)

113. Were you arrested for a drinking and driving violation in the past twelve months?

1 Yes - (Continue)
2 No (Skip to #116)
3 (DK) (Skip to #116)
4 (Refused) (Skip to #116)

114. (If code "1" in #113, ask:) How many times in the past twelve months? (Open ended and code actual number) (NOTE TO SURVENT: Block "11-94")

00 None - (re-code #113 to "2")
10 10 or more times
DK (DK)
RF (Refused)

(There is no #115)

116. In your opinion, should the penalties that are given out to drivers who violate the drinking and driving issues be (read 1-6)

1 Much more severe
2 Somewhat more severe
3 Somewhat less severe
4 Much less severe
5 Stay the same as they are now, OR
6 No penalties should be given
7 (DK)
8 (Refused)

117. What do you think the penalty should be for driving under the influence of alcohol if it is the first time the driver has been convicted of that offense? (Open ended and code) (Allow three responses)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)
- 04 Nothing
- 05 HOLD
- 06 Suspension/Revocation of driver's license
- 07 A fine
- 08 Jail time
- 09 Points on their license
- 10 AA/Rehabilitation program
- 11 Community service/Public service
- 12 Driving school/Films on DWI
- 13 Impoundment of vehicle tags
- 14 Forfeiture of vehicle
- 15 Suspension of vehicle registration

15 Suspension of vehicle registration

118a. (If fine, ask:)How much should the fine be? (Open ended and code actual amount)

- 9997 \$9,997+
- DK (DK)
- RF (Refused)

119. In your opinion, how effective are current laws and penalties at reducing drinking and driving. Would you say they are (read 1-4)?

- 1 Very effective
- 2 Somewhat effective
- 3 Not too effective, OR
- 4 Not at all effective
- 5 (DK)
- 6 (Refused)

SOBRIETY CHECK POINT ITEMS

117a. (If fine, ask:)How much should the fine be? (Open ended and code actual amount)

- 9997 \$9,997+
- DK (DK)
- RF (Refused)

120. In the past twelve months, have you seen a sobriety checkpoint, where drivers are stopped briefly by police to check for alcohol-impaired driving?

- 1 Yes - (Continue)
- 2 No (Skip to #122)
- 3 (DK) (Skip to #122)
- 4 (Refused) Skip to #122)

118. What do you think the penalty should be for persons who have been convicted more than once for driving under the influence of alcohol? (Open ended and code) (Allow three responses)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)
- 04 Nothing
- 05 HOLD
- 06 Suspension/Revocation of driver's license
- 07 A fine
- 08 Jail time
- 09 Points on their license
- 10 AA/Rehabilitation program
- 11 Community service/Public service
- 12 Driving school/Films on DWI
- 13 Impoundment of vehicle tags
- 14 Forfeiture of vehicle

121. (If code "1" in #120, ask:) How many times have you been through a checkpoint in the last twelve months? (Open ended and code actual number)

- 000 None
- 365 Every day
- DK (DK)
- RF (Refused)

122. Do you think sobriety checkpoints should be used more frequently, about the same as they are now, or less frequently?

- 1 More frequently
- 2 About the same
- 3 Less frequently
- 4 (DK)
- 5 (Refused)

123. The amount of alcohol in a

person's body can be measured in terms of the "Blood Alcohol Concentration", which is often called the BAC (B-A-C) level. Have you ever heard of blood alcohol concentration or BAC levels?

- 1 Yes - (Continue)
- 2 No (Skip to #128)
- 3 (DK) (Skip to #128)
- 4 (Refused) (Skip to #128)

124. (If code "1" in #123, ask:) Do you know the specific BAC limit for your state at which a person would be considered legally intoxicated?

- 1 Yes - (Continue)
- 2 No (Skip to #127)
- 3 (DK) (Skip to #127)
- 4 (Refused) (Skip to #127)

125. (If code "1" in #124, ask:) What do you think the limit is? (Open ended and code) (NOTE TO INTERVIEWER: If respondent indicates there are different levels based on age, ask for the limit for age 21 or older)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)
- 04 HOLD
- 05 HOLD
- 06 .01/Point 01
- 07 .02/Point 02
- 08 .03/Point 03
- 09 .04/Point 04
- 10 .05/Point 05
- 11 .06/Point 06
- 12 .07/Point 07
- 13 .08/Point 08
- 14 .09/Point 09
- 15 .10/Point one "oh"

125a. LEGAL LIMIT: (Autocode based on "State")

- 1 (If code "31" in "STATE":)
.10 (point one zero)
- 2 (If code " " in "STATE":)
.08 (point zero eight)

126. The legal limit in your state is (response in #125a). In your opinion, how many beers would a person about your size have to drink in a two-hour period to just reach the legal limit of (response in #125a)? (Open ended and code)

actual number) (NOTE TO SURVENT: Block "31-97")

- 00 None/Less than one
- 30 30 or more
- DK (DK) - (probe for estimate)
- RF (Refused)

127. In your opinion, how many drivers would actually be dangerous drivers with a BAC at the legal limit? Would you say (read 1-5)?

- 1 All
- 2 Most
- 3 Some
- 4 Few, OR
- 5 None
- 6 (DK)
- 7 (Refused)

128. In some states, the average person will reach the legal limit after drinking five beers in two hours. In your opinion, what percent of drivers would be dangerous after having five beers in two hours? (Open ended and code actual percent)

- 000 None/Less than 1%
- DK (DK)
- RF (Refused)

129. Can a person be prosecuted for driving under the influence of alcohol if their blood alcohol level is LESS THAN the legal limit?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

130a. In some states, the legal BAC limit for drivers under 21 is DIFFERENT than the limit for drivers over 21. In your state, is the legal limit the same for drivers under 21 as those over 21?

- 1 Yes, same - (Skip to #130c)
- 2 No, different - (Continue)
- 3 (DK) (Skip to #130c)
- 4 (Refused) (Skip to #130c)

130b. (If code "2" in #130a, ask:) What is the legal limit in your state for drivers under 21? (Open ended and code)

- 01 Other (list)
- 02 (DK)
- 03 (Refused)
- 04 HOLD
- 05 HOLD
- 06 .01/Point 01
- 07 .02/Point 02
- 08 .03/Point 03
- 09 .04/Point 04
- 10 .05/Point 05
- 11 .06/Point 06
- 12 .07/Point 07
- 13 .08/Point 08
- 14 .09/Point 09
- 15 .10/Point one "oh"

130c. Do you think that the BAC limit for driving under 21 should be (read 1-31)?

- 1 The same as for drivers over 21
- 2 Lower; that is, stricter than for drivers over 21, OR
- 3 Higher; that is, looser or less strict than for drivers over 21
- 4 (DK)
- 5 (Refused)

130d. FORM: (Randomly Autocode)

- 1 A (1/2 sample) - (Continue)

2 B (1/2 sample) - (Skip to "Note" at #130e)

(If code "1" in #130d, INTERVIEWER READ:)

A person's BAC (blood alcohol level) is determined by factors such as gender, body weight, the amount of alcohol consumed and how much food they have recently eaten. An average 170 pound man would have to drink about five drinks in a one-hour period on an empty stomach, to reach a BAC of .08 (point oh-eight). He would have to drink about seven drinks in an hour to reach a BAC of .10.

NOTE: THE ABOVE STATEMENT READ TO RESPONDENTS WAS FOUND TO INCORRECTLY STATE THAT IT WOULD TAKE "FIVE DRINKS IN ONE HOUR" TO REACH A BAC OF 0.08. THE CORRECT STATEMENT SHOULD HAVE READ "FOUR DRINKS IN TWO HOURS." THE DATA FROM QUESTIONS 130E-F FOR THOSE PEOPLE WHO WERE READ THE STATEMENT IS NOT PRESENTED IN THE REPORT AND SHOULD NOT BE USED IN THE DATA.

130e. (If code "1" in #125a, ask:) The BAC limit in your state is currently .10 (point one-oh). In your opinion, should the BAC level in your state be lowered; that is, made stricter to a level of .08 (point oh-eight), or should it stay as its current level of .10?

- 1 Lowered
- 2 Stay at current level
- 3 (DK)
- 4 (Refused)

130f. (If code "2" in #125a, ask:) The BAC limit in your state is currently .08 (point oh-eight). In your opinion, should the BAC level in your state be raised; that is, made stricter to a level of .10 (point one-oh), or should it stay as its current level of .08?

- 1 Lowered
- 2 Stay at current level
- 3 (DK)
- 4 (Refused)

CRASH/INJURY ITEMS

131a. In the past twelve months, have you been involved in a crash while driving a motor vehicle in which there was damage to your vehicle or another vehicle?

- 1 Yes - (Continue)
- 2 No (Skip to #135a)
- 3 (DK) (Skip to #135a)
- 4 (Refused) (Skip to #135a)

(There is no #132)

133. (If code "1" in #131a, ask:) Was anyone injured (in any of these crashes)?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

134. (If code "1-6" in #15, ask:) Had you consumed alcohol within two hours prior to the crash?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

135a. In the past twelve months, have you been in a crash where you were a passenger?

- 1 Yes - (Continue)
- 2 No (Skip to "Note" after #138)
- 3 (DK) (Skip to "Note" after #138)
- 4 (Refused) (Skip to "Note" after #138)

(There are no #139 and #140)

(There are no #135b and #136)

Now, a few last questions for statistical purposes.

137. Was anyone injured (in any of these crashes)?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

D1. AGE: What is your age? (Open ended and code actual age)

- 99 99+
- DK (DK) (Continue)
- RF (Refused) (Continue)

138. Had your driver consumed alcohol within two hours before getting behind the wheel?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

D1a. AGE: (If "DK" or "RF" in D1, ask:) Could you please tell me in which of the following age categories you belong? (Read 1-5)

- 1 16 to 20
- 2 21 to 29
- 3 30 to 45
- 4 46 to 64, OR

- 5 65 and older
- 6 (DK)
- 7 (Refused)

D2. EMPLOYMENT STATUS: Are you currently employed full-time, part-time, un-employed and looking for work, retired, going to school, a homemaker, or something else?

- 01 Something else (list)
- 02 (DK)
- 03 (Refused)
- 04 HOLD
- 05 HOLD
- 06 Employed full-time
- 07 Employed part-time

- 08 Unemployed and looking for work

- 09 Retired
- 10 Going to school
- 11 Homemaker
- 12 (Disabled)

- 2 No
- 3 (DK)
- 4 (Refused)

D3. EDUCATION: What is the highest grade or year of school you have completed? (Open ended and code)

- 01 No formal education
- 02 First through 7th grade
- 03 8th grade
- 04 Some high school
- 05 High school graduate
- 06 Some college
- 07 Four-year college graduate
- 08 Some graduate school
- 09 Graduate degree
- 10 (DK)
- 11 (Refused)

D6. RACE: Which of these categories best describes your racial background? (Read 06-09, then 01)?

- 01 OR, some other (list)
- 02 (DK)
- 03 (Refused)
- 04 HOLD
- 05 HOLD
- 06 White
- 07 Black or African-American
- 08 Asian or Pacific Islander
- 09 Eskimo, Aleutian or American Indian

D4. MARITAL STATUS: Are you currently married, divorced, separated, widowed, or single?

- 1 Married
- 2 Divorced
- 3 Separated
- 4 Widowed
- 5 Single
- 6 (DK)
- 7 (Refused)

D7. Including yourself, how many adults aged 16 or older are currently living in your household? (Open ended and code)

- 1 One
- 2 Two
- 3 Three
- 4 Four
- 5 Five
- 6 Six
- 7 Seven or more
- 8 (DK)
- 9 (Refused)

D5. ETHNICITY: Are you of Hispanic origin?

- 1 Yes

D7a. Are you a licensed driver; that is, do you have a valid driver's

license?

- 1 Yes
- 2 No
- 3 (DK)
- 4 (Refused)

D8. INCOME: Which of the following categories best describes your total household income before taxes in 1996? Your best estimate is fine. Would it be (read 1-7)?

- 1 Less than \$5,000
- 2 \$5,000 to less than \$15,000
- 3 \$15,000 to less than \$30,000
- 4 \$30,000 to less than \$50,000
- 5 \$50,000 to less than \$75,000
- 6 \$75,000 to less than \$100,000, OR
- 7 \$100,000 or more
- 8 (DK)
- 9 (Refused)

D9. Finally, the effects of alcohol on driving can vary from one person to another, depending on their body weight. For classification purposes only, please tell me your approximate weight? (Open ended and code actual number of pounds)

D10. GENDER:

- 1 Male
- Female