National Survey of Drinking and Driving Attitudes and Behaviors: 2008

Volume II
Findings Report

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16. Abstract

This report presents results from the eighth in a series of national telephone surveys conducted for the National Highway Traffic Safety Administration (NHTSA) to assess current status and trends regarding the public's attitudes, knowledge, and self-reported behavior related to drinking and driving. This *Volume (II): Findings Report* presents a detailed description of respondents' behaviors and attitudes including reported frequency of drinking and driving, the characteristics of their most recent drinking-driving occasion, their perceptions of drinking and driving as a problem, actions they have taken to avoid drinking and driving or prevent others from driving impaired, their attitudes and experience with enforcement of the drinking and driving laws, and the perceived effectiveness of different intervention strategies. *Volume I: Summary Report* presents a summary of these topics. *Volume III: Methods Report* describes the survey methodology and contains copies of the 2008 survey questionnaires.

Twenty percent of the public age 16 and older had in the past year driven a motor vehicle within 2 hours of drinking alcohol, a number largely unchanged from previous survey years. About two-thirds of these drinking-drivers did so in the past 30 days. Computed national estimates showed the public making 85.5 million drinking-driving trips in the past 30 days, up from 73.7 million trips in 2004 and reversing a declining trend in such trips since 1995. Males were overrepresented, accounting for 48% of the population 16 and older but 78% of past-month drinking-driving trips. While few persons 16 to 20 reported drinking and driving, those that did tended to acknowledge they were heavy drinkers, an average of 5.7 drinks per normal sitting. However, binge drinking was most common among 21-to-24-year-olds, and males in this age group were most likely to report riding in the past year with a driver who might have had too much alcohol to drive safely (24%). A subset of the total sample was categorized as problem drinkers based on the data. More than one-half (56%) of drinking-drivers that were identified as problem drinkers said they had driven at least once in the past year when they thought they were over the legal limit, compared to 24% of other drinking-drivers. More than four-fifths (81%) of the public 16 and older viewed drinking and driving by others as a major safety threat to themselves and their families. One-third (33%) of all respondents had ridden with a designated driver in the past year, and 44% of drivers had been a designated driver in the past year. One-third of the public believed drivers who have had too much to drink to drive safely will be very likely (21%) or almost certain (12%) to get stopped by the police. Thirty percent had seen a sobriety checkpoint in the past year.

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Introduction

Background and Objectives

In 2008, 11,773 persons died in motor vehicle crashes in the United States involving at least one driver with a BAC (Blood Alcohol Concentration) of .08 or higher.[1] This number represents 32% of all motor vehicle crash fatalities for that year, an average of one fatality in an alcohol-impaired-driving crash every 45 minutes. Traffic crashes cost society more than $230 billion each year.[2] Despite progress since the 1980s in reducing alcohol-related fatalities, they remain unacceptably high.

The National Highway Traffic Safety Administration (NHTSA), along with other national and State agencies and grassroots organizations, has worked aggressively toward reducing the incidence of alcohol-impaired motor-vehicle crashes. Passage of laws in all 50 States and the District of Columbia establishing 21 as the minimum drinking age, as well as the October 2000 passage of a stricter standard for drinking and driving and its full implementation by 2004 (setting .08 per se BAC as a threshold for impaired driving), indicate continuing progress in this area.

The 2008 National Survey of Drinking and Driving Attitudes and Behaviors is the eighth in a series of periodic surveys begun in 1991. The objective of these studies is to provide a status report on current attitudes, knowledge, and behaviors of the general driving-age public with respect to drinking and driving. The data are used to 1) track trends in the nature and scope of the drinking-driving problem, and 2) identify areas in need of further attention in the pursuit of reducing drinking and driving.

Methods

The 2008 National Survey of Drinking and Driving Attitudes and Behaviors was conducted by Gallup, Inc. from September through December 2008. A total of 6,999 telephone interviews were completed, including 5,392 landline and 1,607 cell-phone interviews (the cell-phone interviews were conducted with respondents living in households not having landline telephones). Provided below is a brief description of the survey methodology used for the 2008 National Survey of Drinking and Driving Attitudes and Behaviors. A more detailed description of the survey methods can be found in Volume III: Methods Report, which was prepared under separate cover.

Sample Design

The target population for the 2008 National Survey consisted of the general driving-age population (age 16 and older) in the 50 States and the District of Columbia. The sampling objective of the study was to acquire a representative national sample while providing a sufficient number of interviews among youth (age 16 to 24) to analyze this group separately. The sample was selected using a Random Digit Dial (RDD) sampling procedure with two stages of sampling:

[1] NHTSA Traffic Safety Facts 2008 Data, DOT HS 811 155.

[2] The Nation's New Strategy to Stop Impaired Driving; July 2004, DOT HS 809 746.

Stage 1. The first stage of sampling involved a stratified, list-assisted RDD sample of landline telephone numbers, similar to earlier administrations of the study. In addition, for 2008, a cell-phone sample was also employed to ensure maximum coverage of the target population. The sampling of telephone numbers was done separately for landline and cell phones within each stratum (consisting of the four Census regions—Northeast, Midwest, South and West), but the sampling procedure was similar. The RDD sample (for both landline and cell) was obtained from SSI (Survey Sampling, Inc.) based in Connecticut.

Stage 2. The second stage of sampling consisted of randomly selecting a respondent (16 years of age or older) from the sampled household. Young adults between the ages of 16 and 24 had an increased probability of selection compared to adults age 25 and older, to obtain a larger sample size of young adults. For the landline sample, the within-household selection of respondents was done as follows. If only one of the two age groups (16 to 24 or 25 and older) was represented in the household, one eligible member from that age group was chosen at random using the most recent birthday method. If both age groups were represented in the household, the younger age group (16 to 24) was selected with significantly higher probability as compared to the older age group (25 and older). Once an age group was chosen, one member from that age group was selected at random using the most recent birthday method. If there was only one eligible household member in the selected age group, then that household member was selected. For the cell-phone sample, the individual who answered the call was selected for the interview if he/she was otherwise eligible for the survey.

Respondents were reached and interviewed by telephone using a computer-assisted telephone interviewing (CATI) system. Interviews were completed in both English and Spanish. A 7 + 7 call design was used for this study, i.e., up to seven attempts were made to make a human contact in the sampled household, and once a respondent in the household was randomly selected, Gallup, Inc. made seven additional attempts to complete an interview with that person.

Sample Weighting

The final telephone sample of persons age 16 and older was weighted to U.S. population counts to account for the sample design, differential nonresponse, and undercoverage of some groups in the sample frame. The weighting procedure was formulated based on the sample design and was carried out in multiple stages as follows:

- Initial sampling weight to account for the differential probabilities of selection across strata (census regions).
- Non-response adjustments to reduce non-response bias, including adjustments for 1) working telephone numbers and 2) the household screener questionnaire.
- Adjustment for households with multiple telephone numbers.
- Adjustment to account for the selection of one person within each household.
- Post-stratification adjustments to fit weighted sample totals to population totals from the Current Population Survey (CPS) 2008. In the process of post-stratification weighting, Gallup weighted the actual respondent database to match the known demographic characteristics of the U.S. population by age, race/ethnicity, and gender based on the latest available population projections. As part of the post-stratification weighting, the proportion of landline and cell-only respondents were also adjusted.

The post-stratification weighting was carried out within each stratum (census region). Control totals for the proportion of "cell-only" persons were obtained from the National Health Interview Survey (January to June 2008), which estimates the percentage of adults (18 years of age or older) living in cell-phone-only households by census region.

Each weighting stage was undertaken using data weighted from the previous stage and the final weight was a product of the weighting factors developed at all previous stages. The weights sum to the Current Population Survey (CPS) population totals by region and for the U.S. as a whole.

Sample Size

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

	Total	**Male**	**Female**	**16-20**	**21-24**	**25-34**	**35-44**	**45-64**	**65+**
Unweighted	6,999	3,132	3,867	537	467	961	1,005	2,412	1,548
Weighted (Millions)	232.8	112.6	120.2	20.8	16.3	37.1	43.0	77.3	36.8

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 magnitude of sampling error for a given sample design depends largely on the number of interviews.

Table 1 shows the size of the 95% confidence interval half-widths for various sample sizes under the assumption of simple random sampling. The confidence interval half-width is the approximate range (plus or minus) around the sample estimate within which the results of repeated sampling in the same time period could be expected to fall 95% of the time, assuming the same sampling procedures, interviewers, and questionnaire. The 95% confidence interval half-width of any estimate of an unknown population proportion (P) based on 'n' completed surveys can be estimated by:

$$1.96 \times \mathrm{SQRT}\{p \times (1-p) / n\}$$

under the assumption of simple random sampling where 'p' is the sample-based estimate of the population value 'P'. For any given sample size, the estimated precision is worst when p=.5 or 50%. Table 1 shows estimated precision levels for different values of p and sample sizes under the assumption of simple random sampling. For example, with p=40% and a sample size of 300, the estimate will have sampling interval half-width equal to 5.6 percentage points at the 95% confidence level.

Table 1
95 Percent Confidence Interval Half-Widths
For Percentages
For Entire Sample or Subgroups
(in percentage points)

Sample Sizes Near	For Percentages Near					
	5/95% ±	10/90% ±	20/80% ±	30/70% ±	40/60% ±	50/50% ±
50	6.0	8.3	11.1	12.7	13.6	13.9
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	.93	1.2	1.4	1.5	1.5
5,000	.60	.88	1.2	1.3	1.3	1.4
6,000	.55	.76	1.0	1.1	1.2	1.3
7,000	.51	.70	.94	1.1	1.1	1.2

When comparing survey results in two samples—for example, the 2004 and 2008 survey samples— 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 2, the number of percentage points that must be allowed for in such comparisons is shown under the assumption of simple random sampling. If, for example, in 2004, 53 percent of a particular subgroup of the sample reported a particular behavior, while in 2008, 47 percent of those in the same subgroup reported the same behavior, there exists a difference of 6 percentage points. Table 2 can be used to determine whether it can be said with any assurance that the 6-percentage-point difference reflects a real difference between 2004 and 2008. Assuming that the sample contains approximately 2,000 adults in the subgroup in 2004 and again in 2008, Table 2 shows that the difference is 3.1. This means that the difference between the samples must exceed 3.1 percentage points to assume a statistically significant difference, under the assumption of simple random sampling and at the 95% confidence level.

Table 2

95 Percent Confidence Interval Half-Widths
For Differences in Percentages
For Entire Sample or Subgroups
(in percentage points)

Sample Sizes Near	For Percentages Near 50 %								
	100	300	400	500	600	800	1,000	2,000	4,000
100	13.9	11.3	11.0	10.7	10.6	10.4	10.3	10.0	9.9
300	11.3	8.1	7.5	7.2	7.0	6.7	6.5	6.1	5.9
400	11.0	7.5	6.9	6.6	6.3	6.0	5.8	5.4	5.1
500	10.7	7.2	6.6	6.2	5.9	5.6	5.4	4.9	4.6
600	10.6	7.0	6.3	5.9	5.7	5.3	5.1	4.6	4.3
800	10.4	7.7	6.0	6.0	5.6	5.0	4.7	4.1	4.0
1,000	10.3	6.5	5.8	5.4	5.1	4.7	4.4	3.8	3.4
2,000	10.0	6.1	5.4	4.9	4.6	4.3	3.8	3.1	2.7
4,000	9.9	5.9	5.1	4.6	4.3	4.0	3.4	2.7	2.2

Note: Table 2 is provided for comparing two percentages near 50%. For percentages higher or lower than 50%, the difference to be allowed for is somewhat smaller than those shown in the table.

This survey used a complex sample design rather than a simple random sample. This introduces a design effect to the error estimates shown above since the design needs to be taken into account while computing the sampling error (or precision) of estimates. The design effect is defined as the ratio of the design-based sample variance to the sample variance obtained from a simple random sample of the same size. To calculate the precision of an estimate using the complex sampling design, the variances and the standard errors of estimates for this study were directly computed using SUDAAN. Table 3 presents, for a selected group of key population parameters, the percentage estimates and the corresponding 95% confidence intervals based on the complex sample design.

Table 3:

95 Percent Confidence Intervals for Selected Statistics

Key Statistic	Percent	95% Confidence Interval (Lower Bound, Upper Bound)
Percentage of driving-age population who drink and drive (past 12 months)	20.4	19.1, 21.9
Percentage of driving-age population under the age of 25 who drink and drive (past 12 months)	14.8	12.7, 17.3
Percentage of driving-age population who drove within two hours of drinking (past 30 days)	13.2	12.1, 14.4
Percentage of driving-age population under the age of 25 who drove within two hours of drinking (past 30 days)	8.5	6.9, 10.5
Percentage of driving-age population who are problem drinkers who drink and drive (past 30 days)	2.9	2.4, 3.5
Percentage of driving-age population who intervene	37.3	35.6, 37.5

Key Statistic	Percent	95% Confidence Interval (Lower Bound, Upper Bound)
Percentage of driving-age population who have knowledge of BAC limits	85.3	84.0, 86.6
Percentage of driving-age population who are aware of minimum drinking age but do not answer "21" years	9.9	8.8, 11.0
Percentage of driving-age population who went through a sobriety checkpoint	16.7	15.5, 18.0
Percentage of driving-age population who have been designated drivers	40.7	38.9, 42.5
Percentage of driving-age population who rode with a designated driver	32.8	31.2, 34.5

Multivariate Analysis

Six logistic regression analyses were run to explore the study results more comprehensively. The goal of this analysis was to study the extent to which each of the variables illustrated in the text, and corresponding charts, could predict a specific behavior (e.g., likelihood of drinking and driving; intervening or not intervening to stop drinking and driving) or knowledge of the alcohol laws (e.g., awareness of the minimum drinking age). It is important to note that these logistic regression analyses were exploratory; that is, they were not run to test particular *a priori* hypotheses.

The six models were designed to answer the following research questions:

1. What are the differences between those who drink and drive and those who do not?

2. What are the differences between *problem drinkers* who drink and drive and *problem drinkers* who do not drink and drive?

3. What are the differences between individuals who intervene to prevent someone from drinking and driving versus those who do not intervene?

4. What are the differences between those individuals who effectively intervene and those who ineffectively intervene to prevent drinking and driving?

5. What are the characteristics of those individuals who are not aware that there is a legal minimum drinking age?

6. What are the characteristics of those individuals who are aware of a minimum drinking age, but do not know that it is 21 years of age?

Logistic regression analyses test this relationship for each variable while controlling for the effects of the other variables. Logistic regression can distinguish the effects of related variables, such as income and age, to more clearly reveal the factors that influence the particular knowledge or behavior.[3]

[3] *Multiple logistic regression* is used to explore associations between one (dichotomous) outcome variable and two or more exposure variables (which may be continuous, ordinal or categorical). The purpose is to isolate the relationship between the exposure variable and the outcome variable from the effects of one or more other variables (called covariates or confounders). Multiple logistic regression answers the question, "how does age affect the probability of drinking and driving, after accounting for–or unconfounded by or independent of–gender, income, etc.?"

Table 4 below illustrates the predictor variables used in the logistic regression analyses pertaining to 1) demographic characteristics, 2) drinking and driving behaviors, 3) social situations, and 4) knowledge and attitudes.

Table 4:
Variables Used in Multivariate Analysis

1. Demographic Characteristics	2. Drinking and Driving Behaviors	3. Social Situations	4. Knowledge and Attitudes
o Age o Gender o Race/ethnicity o Income o Employment status o Presence of children o Education o Age at first drink	o Hosted a party in last year with individuals under 21 who were drinking o Hosted a party in last year with individuals over 21 who were drinking o Number of days drinking in past 30 days o Problem drinker o Been arrested for drinking and driving in the past year o Involved in an accident with vehicle damage in past two years o Intervention strategy effectiveness o Very likely to get stopped by police	o Encouraged to drink more than wanted in last year o Felt had to drink because everyone else was o Been a designated driver in past year o Rode with someone who agreed to be designated driver in past year o Rode last year with someone they thought might have had too much alcohol	o Awareness of number of drinks to reach legal limit o Awareness of minimum drinking age o View drinking and driving by others as a threat o How often sobriety checkpoints should be conducted o Believe penalties should be much more severe

Note: Several variables had to be excluded from the analysis because they were collinear[4] with other predictor variables.

The logistic regression analyses employed a stepwise backward selection process. First, all predictor variables were entered into the model. Then, the least statistically significant variable in the model was removed from the model (based on its t-test[5] having the least significant p value of all the variables in the model). This process was repeated, trimming variables one by one, until the model contained only those variables whose t-tests had a significance level of $p < .05$. In this way, predictor variables that were not significantly related to the outcome variable were excluded from the final models. For example, "Presence of Children Under 16 Years" was not included in

[4] When two or more predictor variables are highly correlated and added to a logistic regression model simultaneously, their separate effects are impossible to differentiate. For that reason, only the variable that is most strongly associated with the outcome variable can be in the model. The method used to detect co-linearity in these analyses is known as the Variance Inflation Factor method. All variance inflation factors are below 5.

[5] The t-test reflects the contribution of the variable to the ability of the model to predict the outcome variable.

five of the six models because it was not found to be significantly [$p < .05$] associated with the outcomes evaluated.

Data Presented

The findings of this study are presented in four sections. The first section examines the results from the current survey administration. The second section shows racial and ethnic group comparisons. The third section illustrates findings from the multivariate models. Section four examines trends over the past seven survey administrations (e.g., data from the 1993, 1995, 1997, 1999, 2001, 2004 and 2008 survey administrations). Note that the 1991 survey is not included due to differences in sample composition and sample size that would affect comparisons. Throughout the report, categories with insufficient sample sizes are labeled with an asterisk (*).

Definitions

The following definitions are used throughout this report:

1. Drinking-drivers: persons who drove within 2 hours of consuming alcohol within the past year.

2. Other drivers who drink: persons who drank alcohol in the past year, and who drove in the past year, but have not driven within 2 hours of consuming alcohol in the past year.

3. Problem drinkers[6]: persons who meet at least ONE of the following two conditions:

a) Said "yes" to two or more of the following regarding past-year behavior[7]:

- "Has there been a time when you felt you should cut down on your drinking?"
- "Has there been a time when people criticized your drinking?"
- "Has there been a time when you felt bad or guilty about your drinking?"
- "Has there been a time when you had a drink first thing in the morning?"

b) Consumed five or more drinks on 4 or more days in a typical month.

Note: problem drinkers are not by definition drinking-drivers, as they may not drive after consuming alcohol.

4. Trip: a single occasion on which a person drove a motor vehicle.

5. Drinking-driving trip: a trip in which a person drove a motor vehicle within 2 hours of consuming alcohol.

[6] In the surveys from previous years, an additional measure of problem drinking was included (9 or more drinks on a single occasion in past 30 days for males, 8 or more for females). This measure was not included in the 2008 survey. As a result, "problem drinkers" are defined using the two criteria listed above.

[7] Ewing, 1984; Skinner and Holt, 1987

Section I: 2008 Survey Findings

Chapter 1: Drinking and Driving Behaviors

This chapter provides information on the driving-age public's behaviors with regard to drinking and driving. Specifically, this chapter covers the following nine topic areas:

- Past-year and past-month drinking and driving behavior
- Past-month drinking and driving trips
- Drinking patterns of drinking-drivers and others who drink alcohol, and age at onset of drinking
- Characteristics of the most recent drinking-driving occasion
- Involvement of others in the most recent drinking-driving occasion
- Identifying problem drinkers
- Problem drinkers—behaviors and characteristics
- Riding with unsafe drivers
- Driving when thought over legal blood alcohol concentration (BAC) limit

Past-Year and Past-Month Drinking and Driving Behavior

Drove Within Two Hours of Consuming Alcohol

One in five (20%) persons of driving age reported having driven a motor vehicle in the past year within 2 hours of consuming alcoholic beverages. Males were almost twice as likely to report such behavior as females, with 27% of males and 14% of females reporting at least one drinking-driving trip in the past year. Those under legal drinking age were the least likely to have driven within 2 hours of drinking alcohol; 8% of males and 5% of females ages 16 to 20 reported having done so. [Figure 1-A]

While one goal of this study was 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 drinking-drivers were also asked for the total number of drinking-driving trips they had made within the past 30 days.[8]

More than one in eight (13%) persons of driving age had driven within 2 hours of drinking alcohol within the past 30 days. Males were nearly three times as likely as females to have done so (20% of males versus 7% of females). Younger and older persons were less likely to report past-month driving after drinking. Very little difference existed between the four middle age categories (persons ages 21 to 64), with the percentage who engaged in past-month driving after drinking ranging from 15% to 17%. [Figure 1-B]

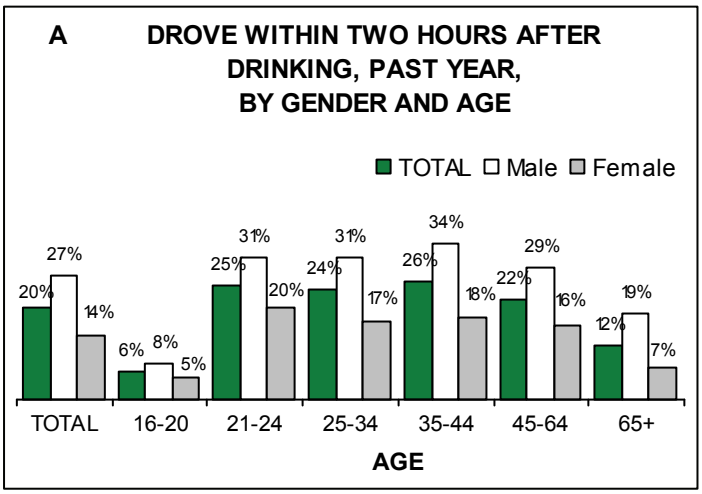
Frequency of Past-Month Drinking-Driving Trips

Past-year drinking-drivers reported an average of 1.8 drinking-driving trips within the past 30 days. Males reported making significantly more trips than females (2.2 versus 1.1) in the past 30 days. Drinking-drivers ages 65 and older reported making on average more monthly trips (2.7) than those in other age groups. In contrast, drinking-drivers ages 16 to 20 reported fewer trips on average than other age groups (1.1). [Figure 1-C]

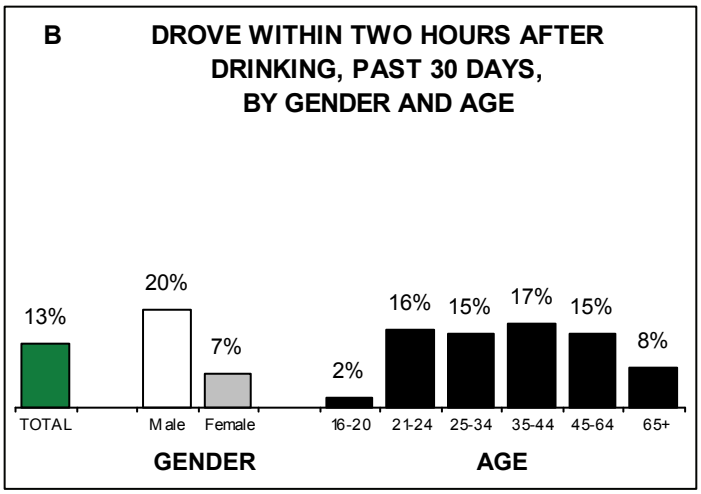
Findings were similar among drinking-drivers who made at least one trip within the past 30 days. Males made more trips on average than females (3.0 versus 2.2), and a greater number of trips were made by younger drinking-drivers (3.8 trips) and drinking-drivers ages 65 and older (4.0 trips). [Figure 1-D]

[8] Since the interviews were conducted from September through December 2008, the "past 30 days" is an aggregate of past month information across a 4-month field period, August through November of 2008. In other words, the respondents are referencing different times of the year when specifying their past-month behavior, with whatever seasonal fluctuation in behaviors that may entail.

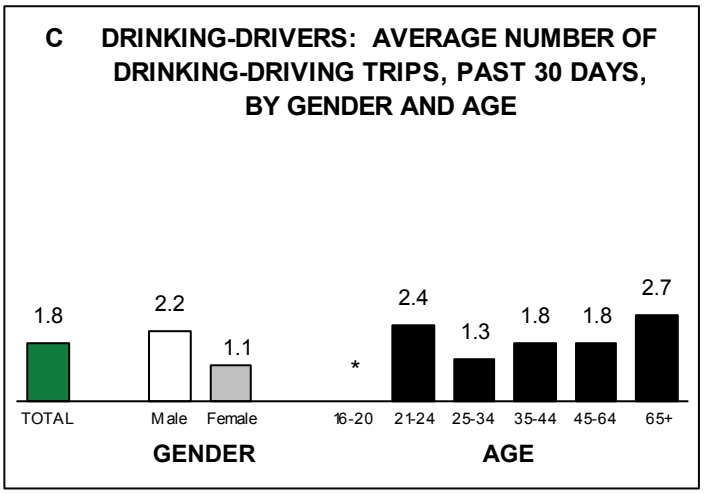
FIGURE 1: PAST-YEAR AND PAST-MONTH DRINKING AND DRIVING BEHAVIOR



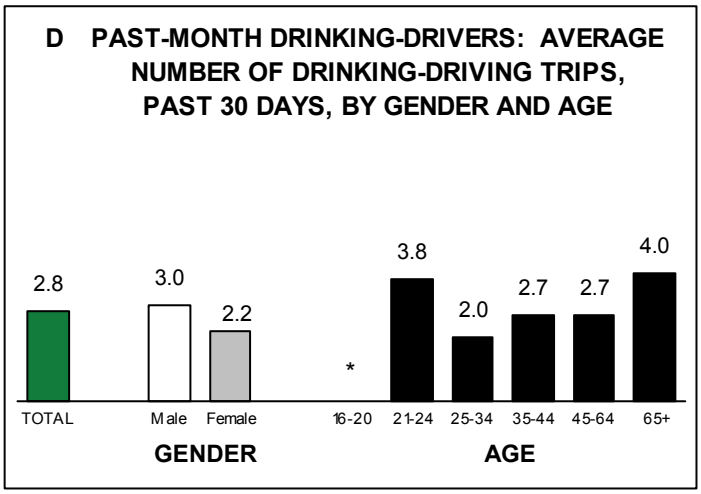
Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?
*[Base: total n=6999**]*



Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: total n=6999**]*



Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers n=1466**]*



Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: drove after drinking past 30 days n=925**]*

*Sample size too small to report.

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548
Male	3132	-	-	297	242	471	480	1062	552
Female	3867	-	-	240	225	490	525	1350	996
Drinking-drivers	1466	887	579	39	127	270	278	544	199
Drinking-drivers, past 30 days	925	628	297	14	81	170	175	348	131

Past-Month Drinking and Driving Trips

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

While persons between the ages of 21 and 64 were about equally likely to report any past-month drinking-driving occasions, those age groups accounted for different percentages of all past-month drinking-driving trips taken (note: some of this difference is due to differences in population sizes between groups). Drinking-drivers ages 45 to 64 accounted for 36% of past-month drinking-driving trips. Those ages 35 to 44 took 24% of the trips. Drivers age 65 and older took 14% of the trips, while drivers ages 21 to 24 and 25 to 34 made up 12% and 13% of total past-month drinking-driving trips taken, respectively. [Figure 2-A]

Males accounted for more than three out of four (78%) reported past-month drinking-driving trips. Females made 22% of such trips. [Figure 2-B]

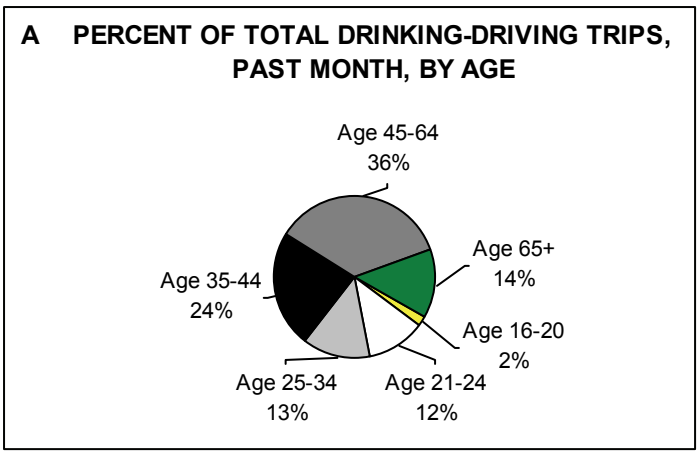
Drinking-Driving Trips

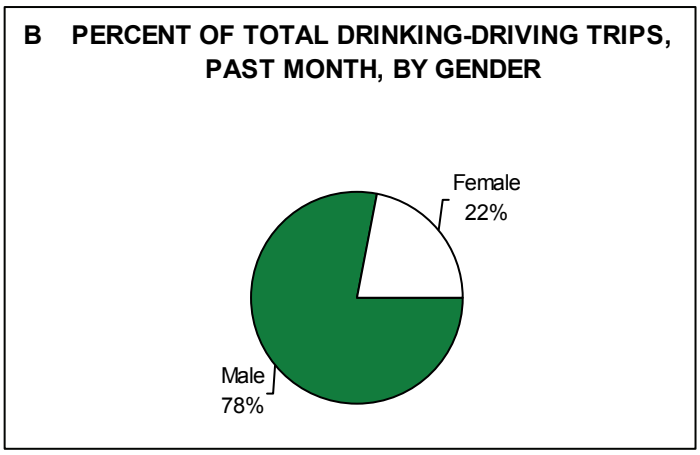
It is important to note that the total trip data presented here may not reflect the true number of drinking and driving trips made each month for a number of reasons: people may not be able to accurately recall the number of such trips, the previous month may not be indicative of the respondent's total-year drinking-driving trips, and people may underreport such behavior if they feel that drinking and driving is not socially desirable. Since data are aggregated across a 3-month period, respondents are referencing different times of the year when specifying their past-month behavior, with whatever seasonal fluctuation in behaviors that may entail. As such, this analysis is meant to provide an approximation of the range of possible drinking-driving trips. Figure 2-C shows the estimated number of trips and the likely high and low number based on the error range of the estimate.

Overall, drinking-drivers made an estimated 85.5 million drinking-driving trips in the past month, with the actual number expected to be somewhere between 74.4 million and 96.6 million at the 95% confidence interval. Males made about 66.7 million (or 78%) of these total trips. Sixteen- to 20-year-olds made the least number of trips across specified age groups, about 1.4 million. The error range around these past-month trip estimates by gender and age category is shown in Figure 2-C.

Figure 2-D compares the proportion of total drinking-driving trips made by each age and gender group to the proportion that each group comprised of the total population. Males showed the greatest overrepresentation in drinking-driving, accounting for 48% of the population 16 and older but 78% of past-month drinking-driving trips. Individuals ages 21 to 24, 35 to 44, and 45 to 64 all accounted for a greater percentage of drinking-driving trips relative to their proportion of the driving-age population.

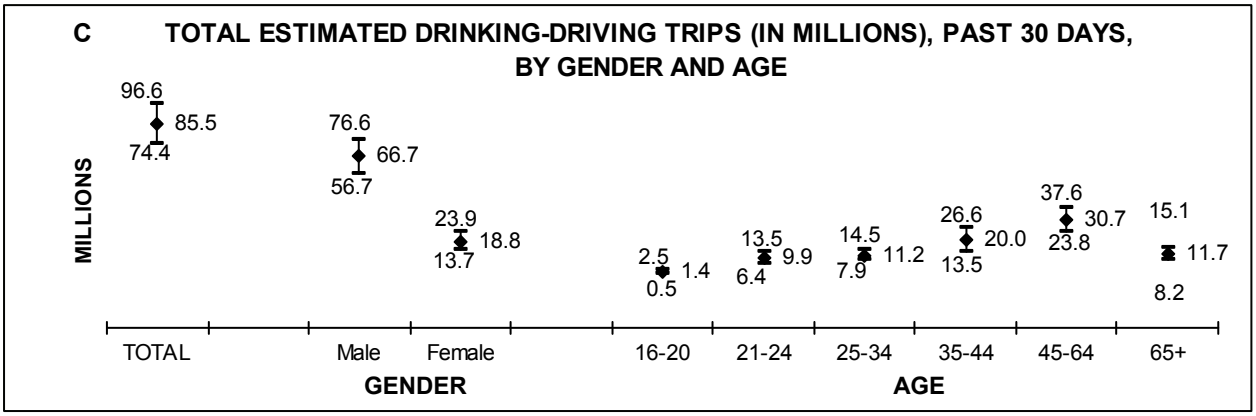
FIGURE 2: PAST-MONTH DRINKING AND DRIVING TRIPS*

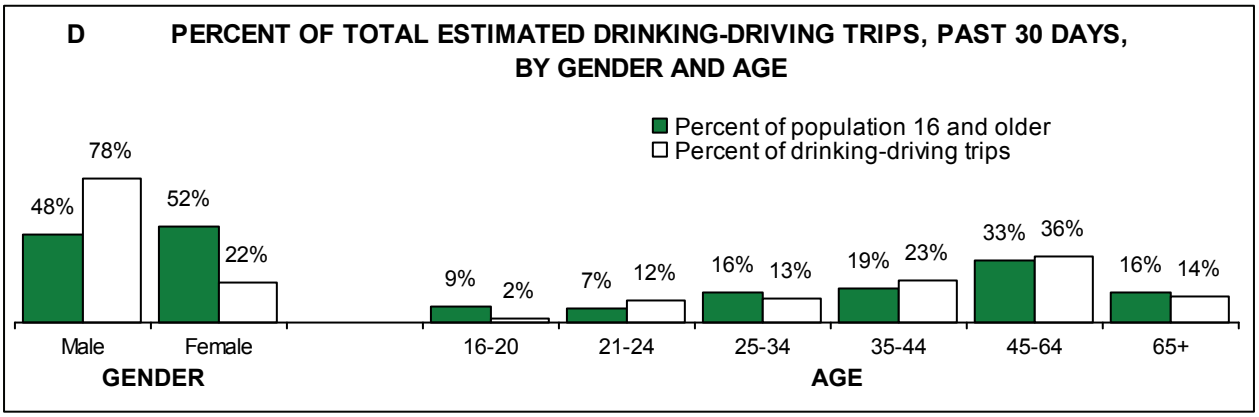




Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers, past month n=925**]*

Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers, past month n=925**]*





*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	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drinking-drivers, past month	925	628	297	14	81	170	175	348	131

Drinking Patterns of Drinking–Drivers and Others Who Drink Alcohol, and Age at Onset of Drinking

Drinking-Drivers Versus Other Drivers Who Drink

Frequency of Drinking, Past Year

Those who reported driving within 2 hours of drinking in the past year (drinking-drivers) consumed alcoholic beverages significantly more often than did other drivers who drink but do not drive within 2 hours of drinking. More than one in four (28%) drinking-drivers consumed alcoholic beverages 3 or more days a week, compared to 10% of drivers who drink but do not drive after drinking. [Figure 3-A]

Amount of Alcohol Consumed per Sitting

Drinking-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 reported consuming an average of 2.6 drinks per sitting compared to 2.2 drinks per sitting for other drivers who drink. [Figure 3-B]

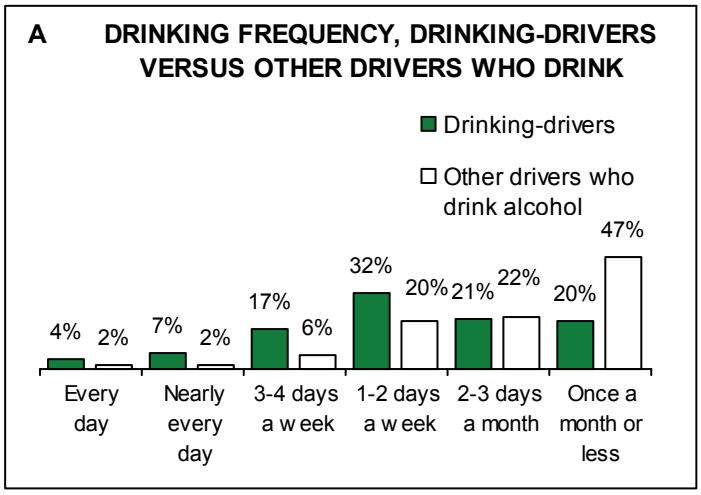
For males, whether or not one is a drinking-driver did not significantly influence the average number of drinks per sitting. However, among females, drinking-drivers consumed significantly more alcohol per sitting than other drivers (2.1 drinks versus 1.7 drinks). [Figure 3-B]

Drinking-drivers of nearly all ages consumed more alcohol per sitting than did other drivers who drink, with the youngest drinking-drivers consuming considerably more drinks per sitting than their counterparts who did not drive after drinking alcohol (5.7 versus 3.7 respectively for those ages 16 to 20). [Figure 3-B]

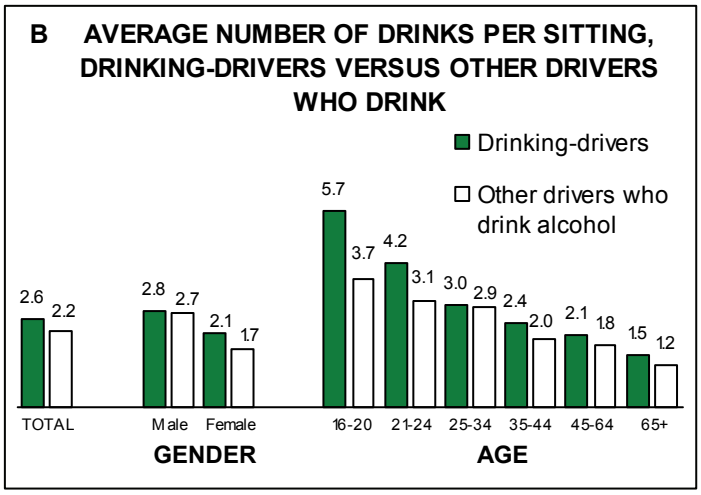
Among those drinkers who began drinking alcohol at age 18 or younger, 41% were drinking-drivers, compared to 24% who began drinking at age 21 or older. [Figure 3-C]

Among those drinkers who began drinking alcohol at 18 years of age or younger, there was no significant difference in usual number of drinks per sitting between drinking-drivers and other drivers who drink. However, among those who began drinking at 19 or 20 years of age, drinking-drivers reported significantly more drinks per sitting (2.5) than other drivers who drink (2.1). A similar finding was evident among those who began drinking at age 21 or older; drinking-drivers reported significantly more drinks per sitting (2.1) compared to other drivers who drink (1.7). [Figure 3-D]

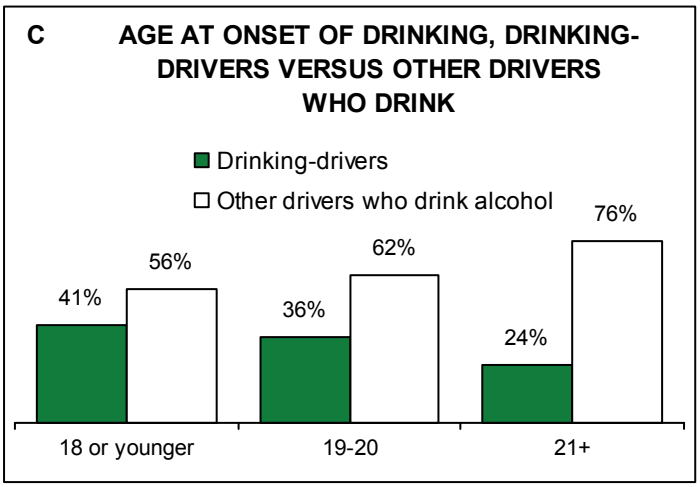
FIGURE 3: DRINKING PATTERNS OF DRINKING-DRIVERS AND OTHERS WHO DRINK ALCOHOL, AND AGE AT ONSET OF DRINKING



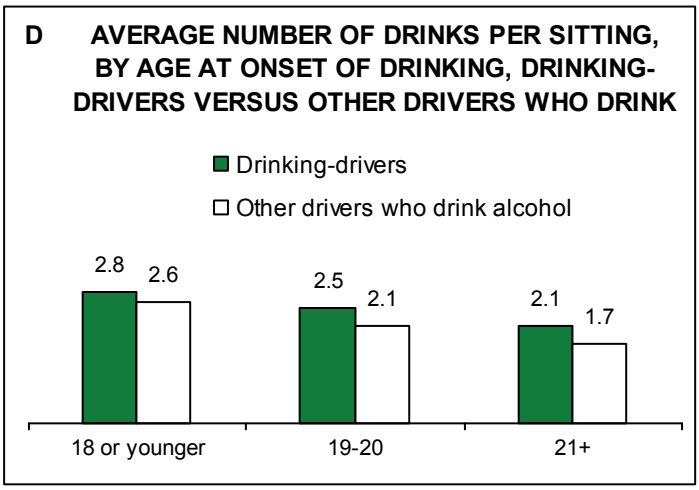
*Q15: During the last 12 months, how often did you usually drink any alcoholic beverages, including beer, light beer, wine, wine coolers, liquor, or flavored malt beverages? Would you say you usually drank alcoholic beverages…? [Base: drinking-drivers n=1466, other drivers who drink alcohol n=2557**]*



*Q18: When you drink [alcoholic beverage drunk most often] about how many [drinks] do you usually drink per sitting? [Base: drinking–drivers n=1466, other drivers who drink alcohol n=2557**][9]*



*Q19a: About how old were you when you first started drinking alcohol, not counting small tastes or sips of alcohol? [Base: drinkers n=4235**]*



*Q18/19a: When you drink [alcoholic beverage drunk most often] about how many [drinks] do you usually drink per sitting?; About how old were you when you first started drinking alcohol, not counting small tastes or sips of alcohol? [Base: drinkers n=4235**][10]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drinking-drivers	1466	887	579	39	127	270	278	544	199
Other drivers who drink alcohol	2557	1071	1486	136	206	384	393	925	489
18 or younger at onset	2008	1100	908	169	180	302	339	754	253
19-20 at onset	655	344	311	28	73	121	109	210	108
21+ at onset	1518	591	927	--	102	259	236	553	348

[9,10]Two outliers ('91' and '96') were excluded from the average number of drinks per sitting; responses of '97' (<1) were set equal to zero (Figures 3B and 3D).

Characteristics of the Most Recent Drinking-Driving Occasion

To obtain the most accurate estimates of self-reported drinking-driving occasions, it is important to ask about the experiences that individuals are most likely to remember. To this end, drinking-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 a representation of drinking-drivers as a whole.

Location of Most Recent Drinking Occasion

Restaurants were the most common place for drinking prior to the most recent drinking-driving occasion (35%). Friend's homes or the drinking-driver's own home were the starting point for about one in three of the most recent drinking-driving trips (32%). About one in five drinking-driving trips originated from bars or taverns (19%). [Figure 4-A]

Number of Drinks on Most Recent Drinking-Driving Occasion

On average, drinking-drivers consumed about 2.5 alcoholic beverages on their most recent drinking-driving occasion. Males consumed significantly more drinks on average than did females (2.7 drinks for males compared to 2.1 drinks for females).

The number of drinks consumed prior to a drinking-driving trip decreased steadily with age, with those older than 65 having consumed 1.6 drinks on average. Younger drinking-drivers consumed considerably more alcohol per sitting than did older drivers. Those younger than age 21 drank an average of almost five drinks on their most recent drinking-driving occasion, while 21- to 24-year-olds reported consuming about four drinks. [Figure 4-B]

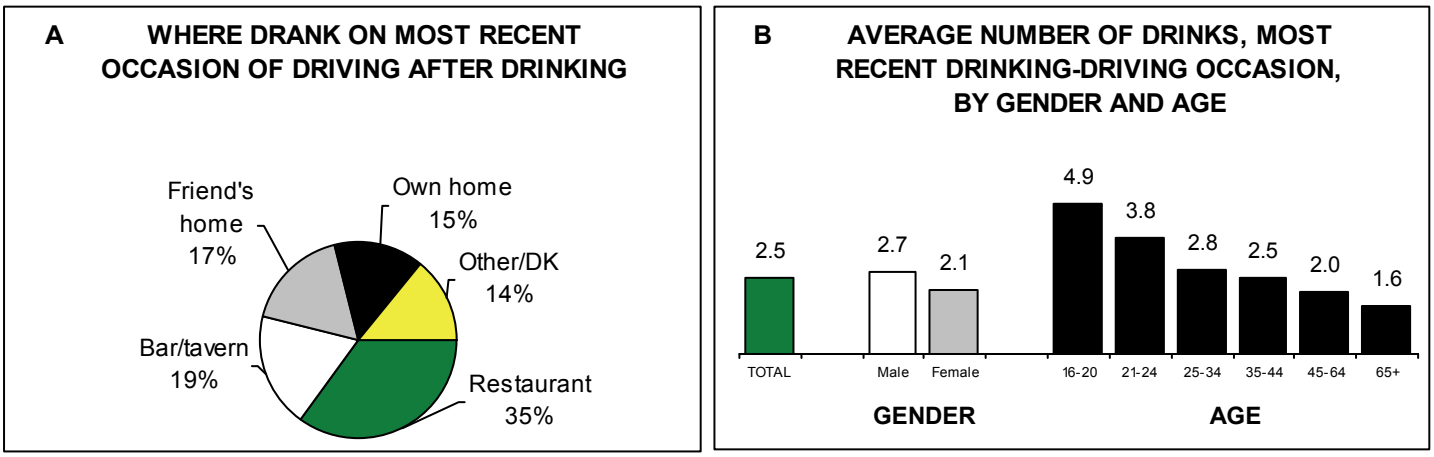
Self-Reported Status in Relation to Legal Limit on Most Recent Drinking-Driving Occasion

About one in eight (13%) past-year drinking-drivers believed that they were over the legal alcohol-consumption limit for operating a motor vehicle the last time they drove. Thirty-seven percent of drinking-drivers under the legal drinking age of 21 and 32% of those ages 21 to 24 thought that they were over the limit on their last trip. [Figure 4-C]

Seatbelt Usage on Most Recent Occasion

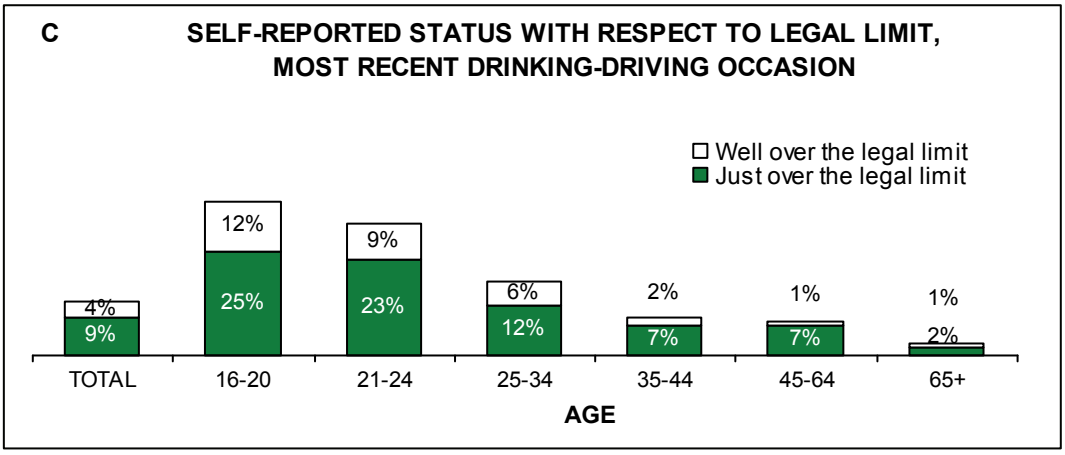
Nearly all drinking-drivers reported they were wearing their seat belt on their most recent drinking-driving occasion (95%), although only 89% of those drinking-drivers ages 21 to 24 did so. Most age groups were at, or close to, that 95% usage level. [Figure 4-D]

FIGURE 4: CHARACTERISTICS OF MOST RECENT DRINKING-DRIVING OCCASION



Q37: Where did you drink on that occasion?
*[Base: drinking-drivers n=1466**]*

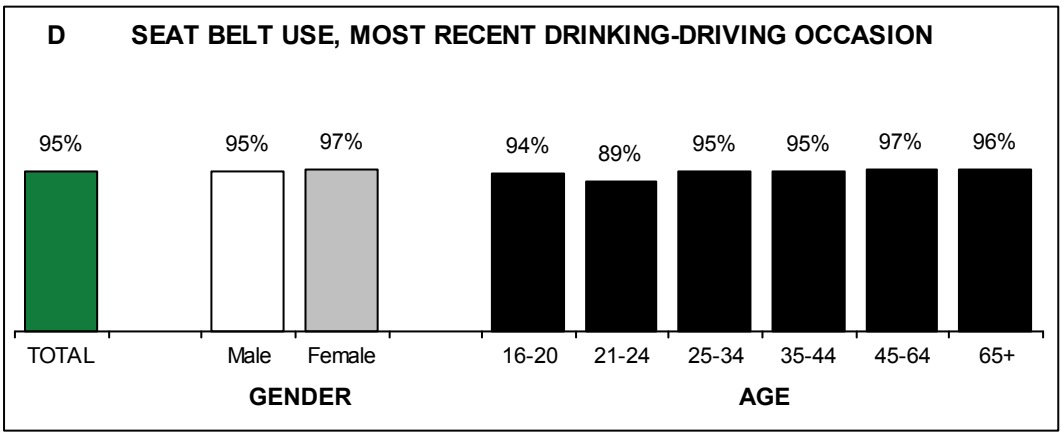
Q38: How many drinks did you have on this occasion?
*[Base: drinking-drivers n=1466**]* [11]



Q49: On this most recent occasion, do you think you were...?
*[Base: drinking-drivers n=1466**]*

[11] An outlier of '60' was excluded from the average number of drinks, most recent drinking-driving occasion (Figure 4B).

FIGURE 4: CHARACTERISTICS OF MOST RECENT DRINKING-DRIVING OCCASION (CONTINUED)



Q43a: Were you wearing a seat belt on this occasion?
*[Base: drinking-drivers n=1466**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drinking-drivers	1466	887	579	39	127	270	278	544	199

Involvement of Others in the Most Recent Drinking-Driving Occasion

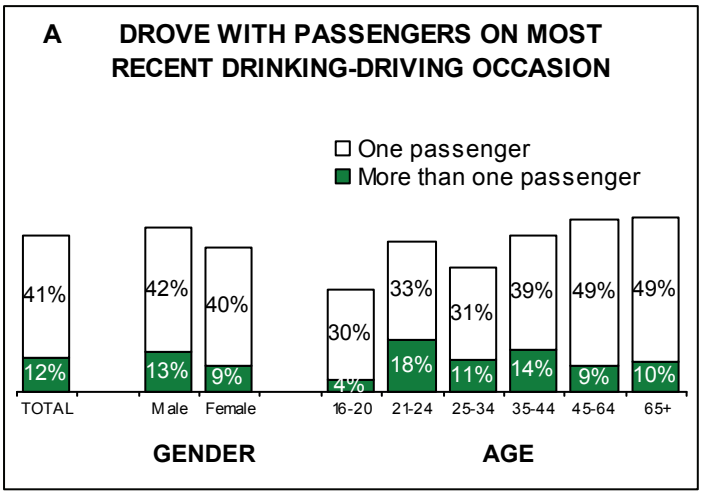
Number of Passengers on Most Recent Occasion

Just over one-half (53%) of drinking-drivers had at least one other passenger in the vehicle with them on their most recent drinking-driving trip. Older age groups were most likely to have driven with a passenger; 59% of drinking-drivers over the age of 65 reported driving with at least one passenger on their last drinking-driving trip. Fifty-five percent of males drove with passengers after drinking, and 49% of female drinking-drivers did so. [Figure 5-A]

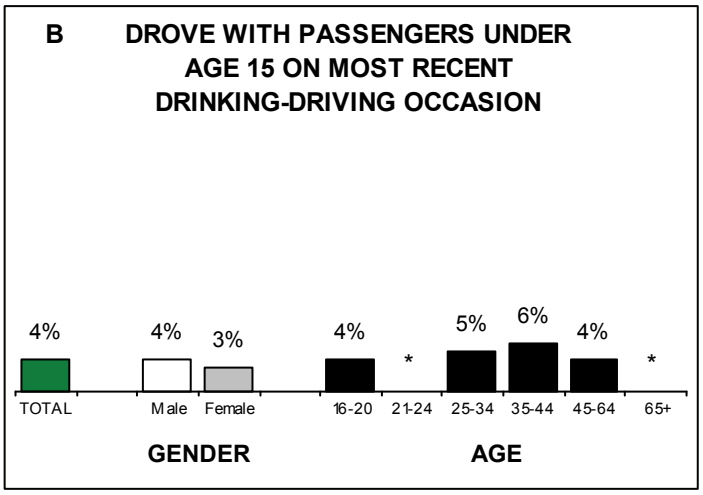
Involving Passengers Under Age 15

About 4% of drinking-drivers drove with one or more children younger than age 15 on their most recent drinking-driving trip. This percentage did not vary by gender (4% of males and 3% of females did so). [Figure 5-B]

FIGURE 5: INVOLVEMENT OF OTHERS IN THE MOST RECENT DRINKING-DRIVING OCCASION



Q44: How many people other than yourself were in the vehicle with you?
*[Base: drinking-drivers n=1466**]*



Q44a: How many of these passengers were under age 15?
*[Base: drinking-drivers n=1466**]*
**Less than 0.5%.*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drinking-drivers	1466	887	579	39	127	270	278	544	199

Identifying Problem Drinkers

"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, 1984) with each letter representing one of the four questions. The questions were modified for the survey, using the following wording: "During the last 12 months, has there been a time when: a) you felt you should cut down on your drinking; b) people criticized your drinking; c) you felt bad or guilty about your drinking; d) you had a drink first thing in the morning?" Overall, 13% of respondents reported that they felt they should cut down on their drinking, 4% said others criticized their drinking and 7% felt bad or guilty about their drinking. Only 2% of the drinking public reported having a drink first thing in the morning. [Figure 6-A]

Differences by Gender and Age

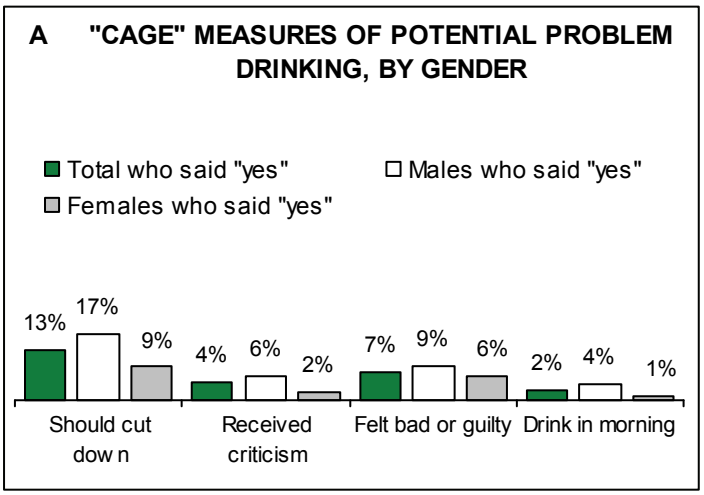
Males were more likely than females to say "yes" to each of the CAGE measures. Almost one in five males (17%) had felt that they should cut down on their drinking, 6% had others criticize their drinking, 9% had felt bad or guilty about their drinking, and 4% had a drink first thing in the morning in the past 12 months. Among females, 9% had felt that they should cut down on their drinking, 2% had others criticize their drinking, 6% felt bad or guilty about their drinking, and 1% had a drink first thing in the morning in the past 12 months. [Figure 6-A]

Those under age 21 tended to be most likely to say "yes" to these modified CAGE measures; positive responses generally decreased with age. [Figure 6-B]

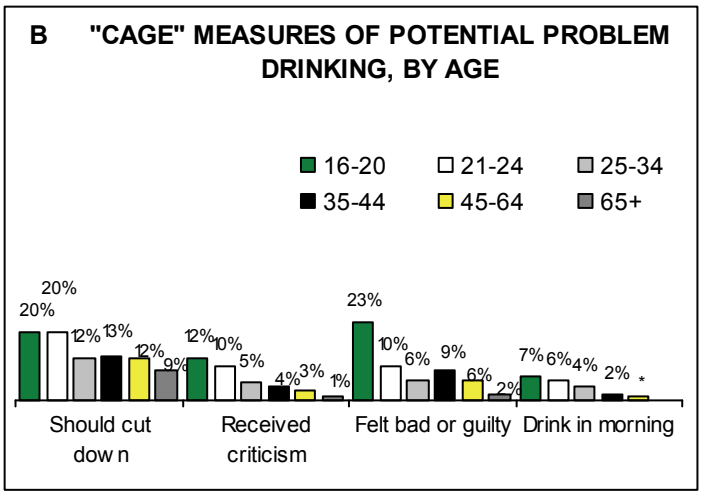
Identifying Heavy and Binge Drinkers

Overall, about 8% of past-year drinkers reported consuming five or more drinks on 4 or more days of a typical month. Males (11%) and young adults ages 21-24 (19%) were the most likely to report 4 or more days of heavy drinking. [Figure 6-C]

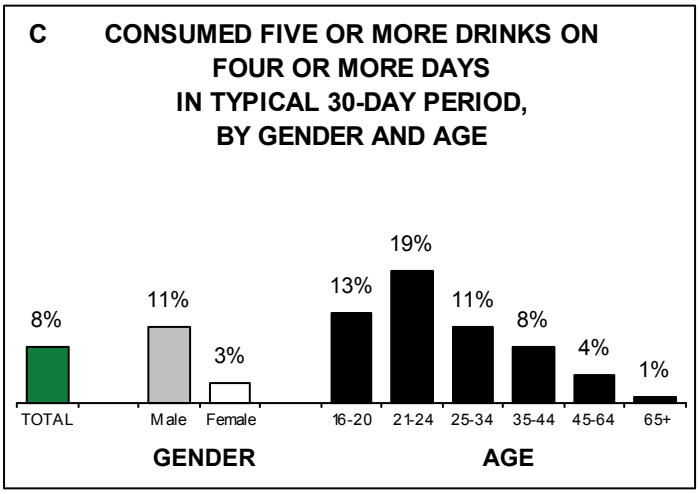
FIGURE 6: IDENTIFYING PROBLEM DRINKERS*



Q26: During the last 12 months, has there been a time when you felt you should cut down on your drinking? ("C")
Q27: During the last 12 months, has there been a time when people criticized your drinking?("A")
Q28: During the last 12 months, has there been a time when you felt bad or guilty about your drinking? ("G")
Q29: During the last 12 months, has there been a time when you had a drink first thing in the morning? ("E")
*[Base: drank alcohol in past year n=4235**]*



Q26: During the last 12 months, has there been a time when you felt you should cut down on your drinking? ("C")
Q27: During the last 12 months, has there been a time when people criticized your drinking?("A")
Q28: During the last 12 months, has there been a time when you felt bad or guilty about your drinking? ("G")
Q29: During the last 12 months, has there been a time when you had a drink first thing in the morning? ("E")[12]*)*
*[Base: drank alcohol in past year n=4235**]*



Q23: On how many of the days did you have five or more drinks?
*[Base: drank alcohol in past year n=4235**]*

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

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drank alcohol past year	4235	2057	2178	198	356	687	691	1535	730

[12] An asterisk (*) denotes that the sample size is too small to report results. Only 0.25% of drinkers ages 65 and older reported having a drink first thing in the morning during the last 12 months.

Defining Problem Drinkers

For this analysis, "problem drinkers" were defined as 1) expressing agreement ("yes") to two or more of the four modified CAGE measures, or 2) having consumed five or more drinks on 4 or more days in a typical 30-day period. Overall, about 7% of the U.S. public age 16 or older can be classified as a "problem drinker" by these criteria. Among problem drinkers, 60% were drinking-drivers.

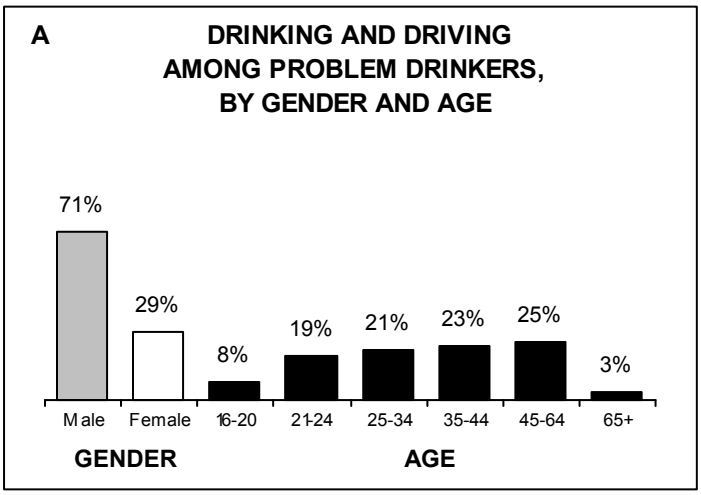
Problem Drinkers' Contribution to Drinking-Driving

Significantly more (71%) problem drinkers who drink and drive were male than female (29%). Persons ages 45 to 64 made up the largest percentage of problem drinkers who drink and drive (25%). Persons over age 65 comprised only 3% of problem drinkers who drink and drive, while underage drinkers (age 16 to 20) comprised 8%. [Figure 7-A]

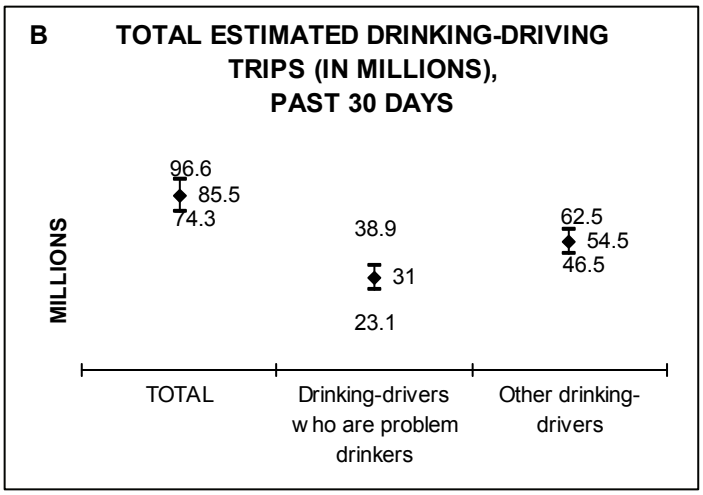
Problem drinkers made an estimated 31.0 million drinking-driving trips (36.3% of the total) in the 30 days prior to interview, though they accounted for only 19% of past-year drinking-drivers. Other drinking-drivers made 54.5 million trips (63.7% of the total), though they accounted for 81% of past-year drinking-drivers. [Figure 7-B]

While problem drinkers made up about 19% of all past-year drinking-drivers, they comprised about 22% of past-month drinking-drivers. [Figure 7-C]

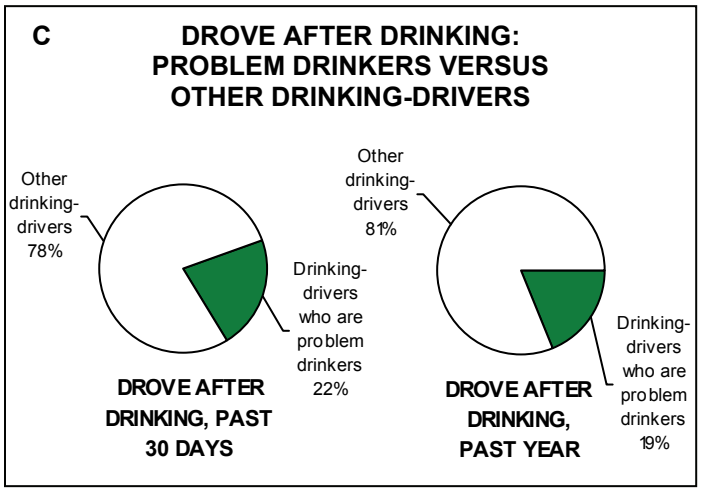
FIGURE 7: PROBLEM DRINKERS* — BEHAVIORS AND CHARACTERISTICS



Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?
*[Base: problem drinkers n=498**]*



Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?
*[Base: drinking-drivers n=1466**]*



Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers n=1466, past month drinking-driver n=925**]*

*"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 modified "CAGE" measures
(b) consumed five or more drinks on four or more days in a typical four-week period
(Ewing, 1984; Skinner and Holt, 1987)

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:

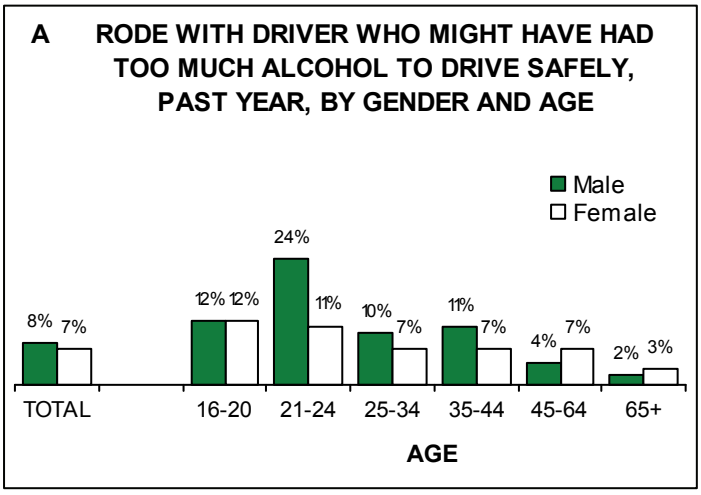
	Total
Drinking-drivers	1466
Problem drinkers	498
Other drinking-drivers	1192

Riding With Unsafe Drivers

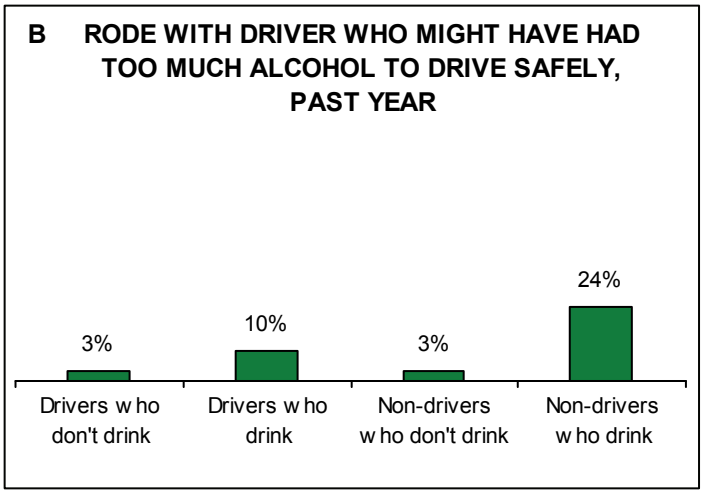
Approximately 1 in 12 (8%) persons rode in the past year with a driver they thought may have consumed too much alcohol to drive safely. Approximately equal proportions of males (8%) and females (7%) had ridden with a potentially unsafe driver. Twenty-four percent of males ages 21 to 24 reported that they had been a passenger with a driver they thought might have had too much to drink. This percentage was higher than that reported by either gender in any other age group and significantly higher than females in the same age group (11%). [Figure 8-A]

Drivers who drink were about three times more likely than drivers who do not drink to report being the passenger in a vehicle with a driver who may have consumed too much alcohol to drive safely. One in 10 (10%) drivers who drink had ridden with a driver who may have consumed too much alcohol, as compared to 3% of drivers who do not drink. In comparison, 24% of non-drivers who drink rode with an unsafe driver, while 3% of non-drivers who were non-drinkers did so. [Figure 8-B]

FIGURE 8: RIDING WITH UNSAFE DRIVERS



Q57: 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: total n=6999**]*



Q57: 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 do not drink n=2377, drivers who drink n=4023, non-drivers who do not drink n=329 non-drivers who drink n=205**]*

**Sample bases for this page:

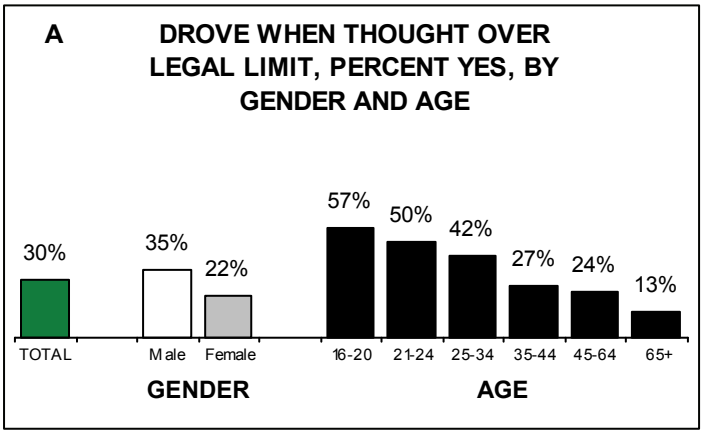
	Total	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	537	467	961	1005	2412	1548
Male	3132	297	242	471	480	1062	552
Female	3867	240	225	490	525	1350	996

Driving When Thought Over Legal Blood Alcohol Concentration (BAC) Limit

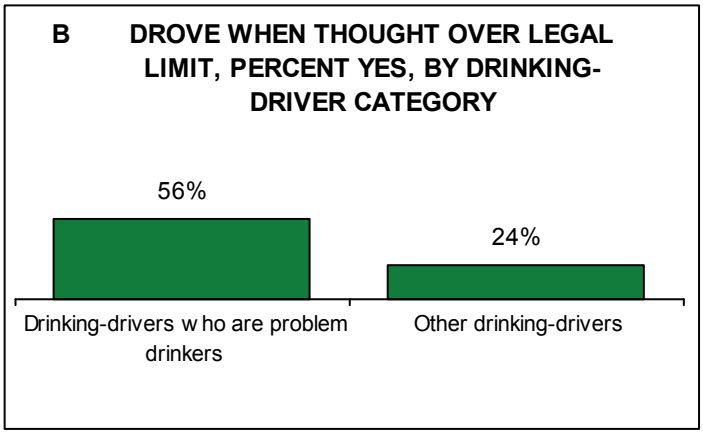
Almost one-third (30%) of drinking-drivers reported that they drove at least once in the past year when they thought they were over the legal blood alcohol concentration (BAC) limit for alcohol consumption and driving. Males were significantly more likely than females to have driven when they thought they were over the legal limit (35% compared to 22%, respectively). More than one-half of drinking-drivers under age 21 (57%) and ages 21 to 24 (50%) reported such activity. The proportion of drinking-drivers who drove when they thought they were over the legal limit declined with age. [Figure 9-A]

Drinking-drivers who are problem drinkers were more than twice as likely as other drinking-drivers to report that they have driven when they thought they were over the legal limit (56% compared to 24%, respectively). [Figure 9-B]

FIGURE 9: DRIVING WHEN THOUGHT OVER LEGAL LIMIT



Q52: About how many times in the PAST 12 MONTHS did you drive when you thought you were over the legal limit for alcohol and driving?
*[Base: drinking-driver n=1466**]*



Q52: About how many times in the PAST 12 MONTHS did you drive when you thought you were over the legal limit for alcohol and driving?
*[Base: drinking-drivers who are problem drinkers n=274, other drinking-drivers n=1192**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drinking-driver	1466	887	579	39	127	270	278	544	199
Problem drinker	498	363	135	51	92	103	84	142	25
Other drinking-driver	1192	687	505	17	74	213	231	462	187
Total thought over the legal limit for alcohol	466	321	145	27	76	117	73	135	35

Chapter 2: Perceptions of Drinking and Driving as a Problem

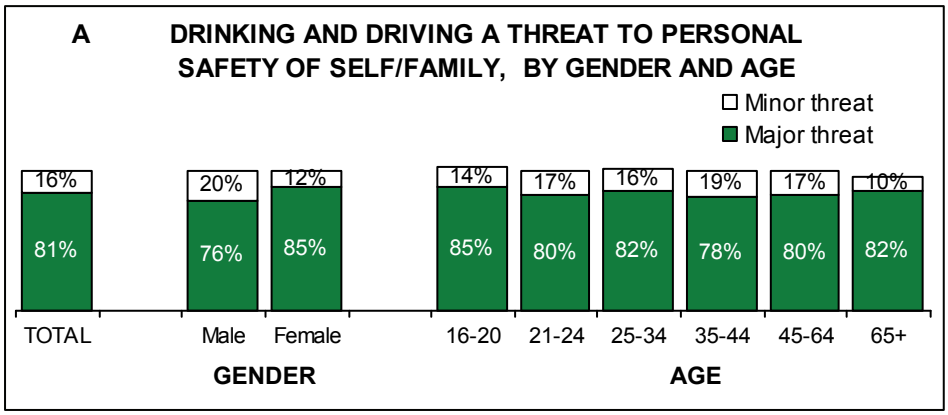
This chapter examines the driving-age public's perceptions on two topics related to drinking and driving:

- Drinking and driving as a threat to personal safety
- Number of drinks before it is considered unsafe to drive

Drinking and Driving as a Threat to Personal Safety

More than four in five (81%) persons saw drinking and driving by others as a major threat to their personal safety and that of their family. The majority in all age groups and both males and females held this belief, although proportionally more females than males saw it as a major threat (85% compared to 76%, respectively). [Figure 10-A]

FIGURE 10: DRINKING AND DRIVING AS A THREAT TO PERSONAL SAFETY



Q103: In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family?
*[Base: total n=6999**]*

**Sample bases for this page:

	Total	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	537	467	961	1005	2412	1548
Male	3132	297	242	471	480	1062	552
Female	3867	240	225	490	525	1350	996

Number of Drinks Before Unsafe to Drive

Drivers who drink were asked to estimate the number of alcoholic beverages they could drink in 2 hours to reach the point at which it would be unsafe for them to drive. Forty percent believed it would be safe for them to have three or more drinks within a 2-hour period before driving. Just over one-fourth (26%), placed their personal limit (after which it would be unsafe for them to drive) at one or fewer drinks. [Figure 11-A]

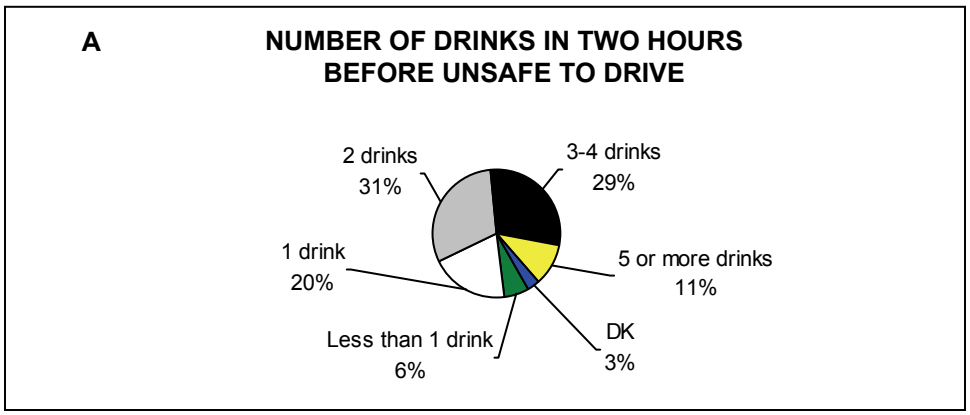
Differences by Gender and Age

The average number of drinks that drivers who drink alcohol reported being able to consume before they felt it was unsafe for them to drive was highest in the two youngest age groups. Males tended to report a higher perceived threshold amount than females. [Figure 11-B]

Drinking-Drivers Versus Other Drivers Who Drink

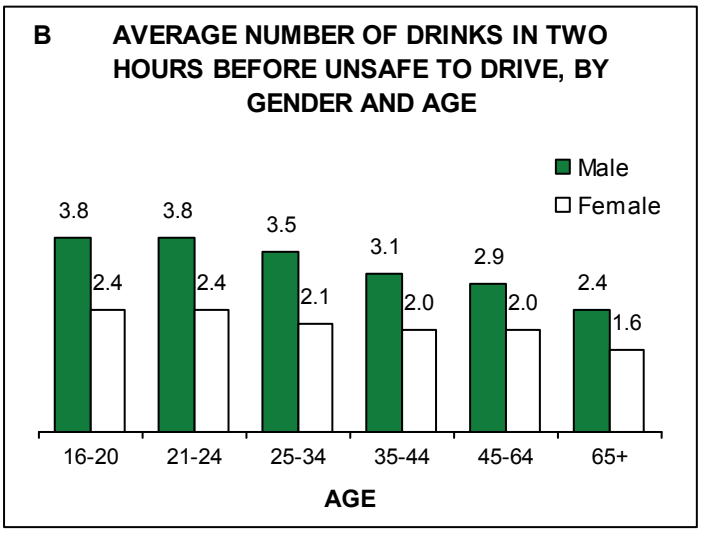
Drinking-drivers overall had a higher reported perceived threshold than did other drivers who drink. Drinking-drivers, on average, reported they can have 3 drinks of alcohol in 2 hours before it would be unsafe for them to drive, compared to an average of 2.3 drinks in 2 hours reported by other drivers. [Figure 11-C]

FIGURE 11: NUMBER OF DRINKS BEFORE UNSAFE TO DRIVE

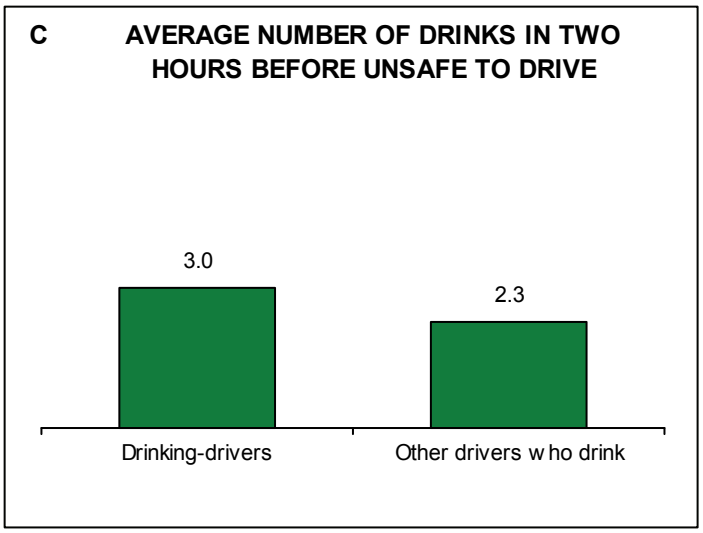


Q31: In your opinion, how many [drinks of alcoholic beverage drunk most often] could you drink in two hours before it would be unsafe for you to drive?
*[Base: drivers who drink n=4023**]*

FIGURE 11: NUMBER OF DRINKS BEFORE UNSAFE TO DRIVE (CONTINUED)[13]



Q31: In your opinion, how many [drinks of alcoholic beverage drunk most often] could you drink in two hours before it would be unsafe for you to drive?
*[Base: drivers who drink n=4023**]*



Q31: In your opinion, how many [drinks of alcoholic beverage drunk most often] could you drink in two hours before it would be unsafe for you to drive?
*[Base: drinking-drivers n=1466, other drivers who drink n=2557**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drivers who drink	4023	1958	2065	178	333	654	671	1469	688
Drinking-drivers	1466	887	579	39	127	270	278	544	199
Other drivers who drink	2557	1071	1486	136	206	384	393	925	489

[13] An outlier of '60' drinks was excluded from the average number of drinks in two hours before it would be unsafe to drive (Figures 11B and 11C).

Chapter 3: Prevention and Intervention to Reduce Drinking and Driving

This chapter considers actions people can take to reduce their own drinking-driving trips and drinking-driving trips by others. Specifically, the chapter covers the following topics:

- Avoiding driving after drinking too much
- Social pressures to drink more than planned
- Concerns and actions by hosts to prevent guests from driving impaired
- Use of designated drivers
- Personal responsibility to intervene

Avoided Driving After Drinking Too Much

Problem Drinkers Who Drive Versus Other Drinking-Drivers

Slightly more than one-half (53%) of drinking-drivers avoided driving a motor vehicle at least once in the past year because they felt they had too much to drink to drive safely. Eighty-three percent of drinking-drivers who are problem drinkers avoided driving under these circumstances, compared to 45% of drinking-drivers who are not problem drinkers. [Figure 12-A]

Gender and Age Differences

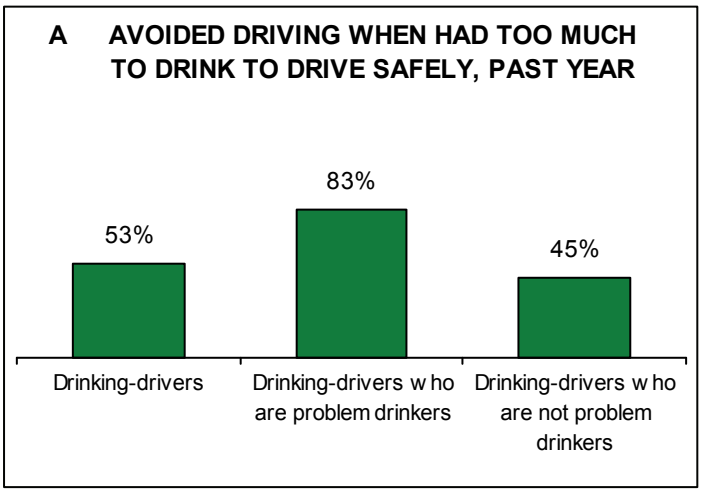
Among drivers who had consumed alcohol in the past year, males (50%) were more likely than females (38%) to have deliberately avoided driving at least once during that time frame because they felt they had too much to drink to drive safely. Avoidance of driving was most common among drivers younger than age 25, and then decreased steadily with age. [Figure 12-B]

Actions to Avoid Driving After Drinking Too Much

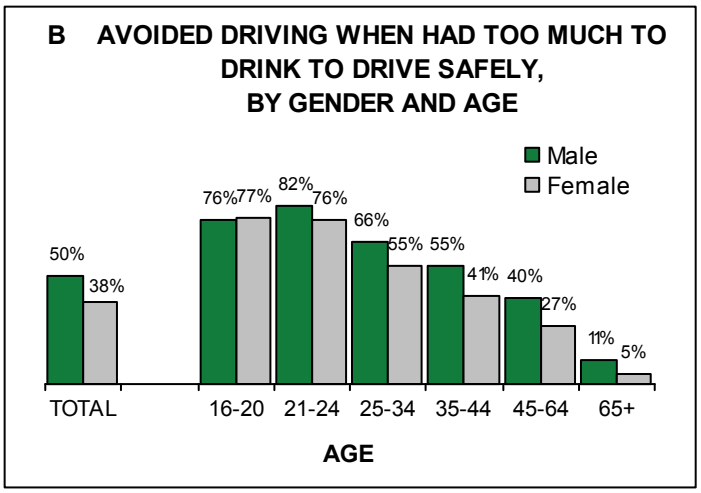
Twenty-eight percent of those who avoided driving after drinking too much did so by using a designated driver. Twenty-six percent rode with another driver at that same drinking location. [Figure 12-C]

Staying overnight as a way to avoid driving after drinking was used most commonly by drivers under the age of 21 (30%). Incidence of staying overnight as a way to avoid driving after drinking then decreased as age increased. Only 4% of persons over age 64 stayed overnight. Overall, males and females stayed overnight at nearly equal rates to avoid driving after drinking (11% and 10%, respectively). [Figure 12-D]

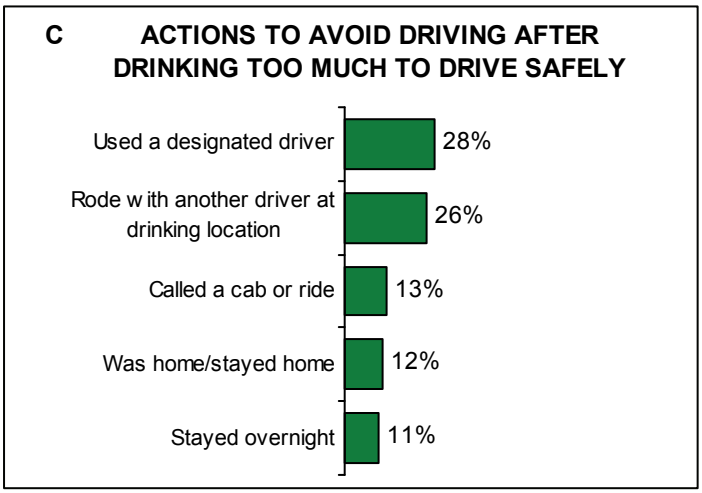
FIGURE 12: AVOIDED DRIVING AFTER DRINKING TOO MUCH



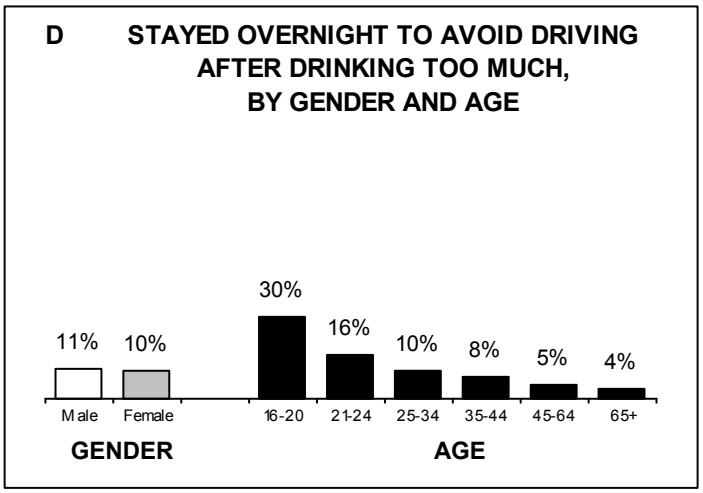
Q54: In the past 12 months, have you ever deliberately avoided driving a motor vehicle because you felt you probably had too much to drink to drive safely?
*[Base: Drinking-drivers n=1466**, problem drinkers who are drinking-drivers n=274,other drinking-drivers n=1192]*



Q54: 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 n=4023**]*



Q56: 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=1626**]*



Q56: 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=1626**]*

**Sample bases for this page:

Drove after drinking, past year	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	1466	887	579	39	127	270	278	544	199
Male	887	-	-	25	82	161	169	319	125
Female	579	-	-	14	45	109	109	225	73
Avoided driving after drinking	1626	912	714	137	263	403	330	427	58

Social Pressures to Drink More Than Planned

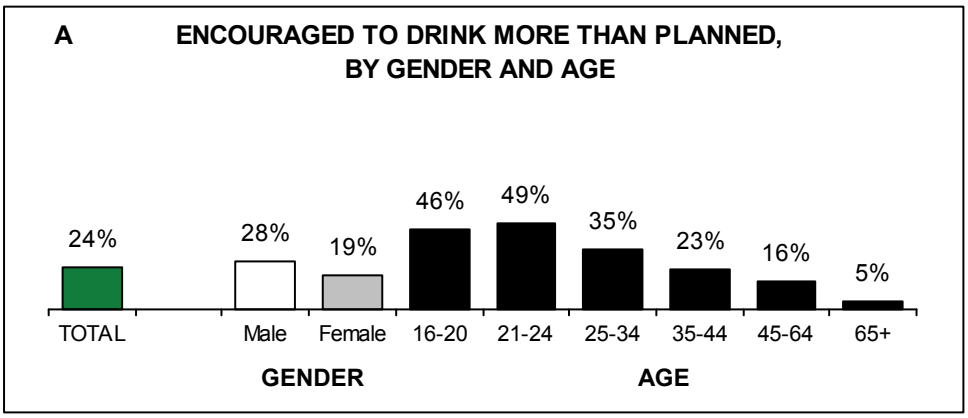
Encouraged to Drink More Than Planned

Nearly one-fourth (24%) of drinkers (drivers and non-drivers) said they were in a situation in the past year where they were encouraged to drink more than they had planned. The youngest age groups were most likely to report being exposed to this pressure: 46% of drinkers ages 16 to 20 and 49% of drinkers ages 21 to 24. In addition, male drinkers (28%) were more likely than female drinkers (19%) to have experienced this pressure. [Figure 13-A]

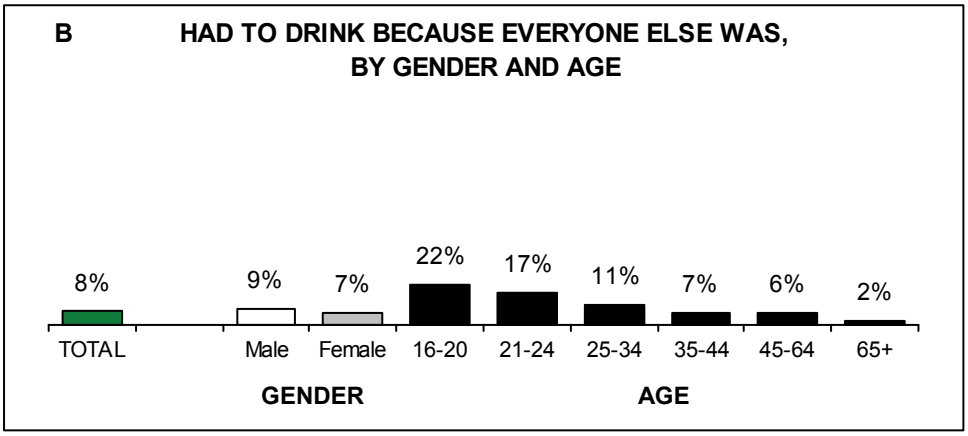
Had to Drink Because Everyone Else Was

Only 8% of drinkers age 16 and older said they were in a situation in the past year where they felt they had to drink because everyone else was drinking. There was minimal difference between genders (9% of males compared to 7% of females), but younger drinkers were more likely to report feeling pressured to drink (22% of drinkers ages 16 to 20 and 17% of drinkers ages 21 to 24). [Figure 13-B]

FIGURE 13: SOCIAL PRESSURES TO DRINK MORE THAN PLANNED



Q102b: In the last year, were you ever in a situation where you were encouraged to drink more than you had planned to drink?
*[Base: drank alcohol n=4235**]*



Q102c: How about a situation where you felt you had to drink because everyone else was?
*[Base: drank alcohol n=4235**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Drank alcohol	4235	2057	2178	198	356	687	691	1535	729

Concerns and Actions by Hosts to Prevent Guests From Driving Impaired

Hosting a Social Event for Adults in the Past Year Where Alcohol Was Served

About two in five (39%) of those age 16 and older hosted a social event in the past year at which they served alcohol, with no difference between genders. Adults ages 21 to 24 were the most likely to have hosted such events (49%); however, more than 40% of those ages 25 to 34, 35 to 44, and 45 to 64 also hosted social events that included alcohol. Although minors are unable to purchase alcohol legally, 24% of those younger than 21 reported that they held an event in the past year where alcohol was served. [Figure 14-A]

Concern About Having Guests Drive After Drinking Too Much to Drive Safely

Thirty-nine percent of all hosts who held an event in the past year at which they made alcohol available were very or somewhat concerned about having guests drive after drinking too much to drive safely. Concerns were highest among hosts younger than 25, 59% of whom expressed concern. Reports of concern about having guests drink and drive home diminished with the age of the host. [Figure 14-B]

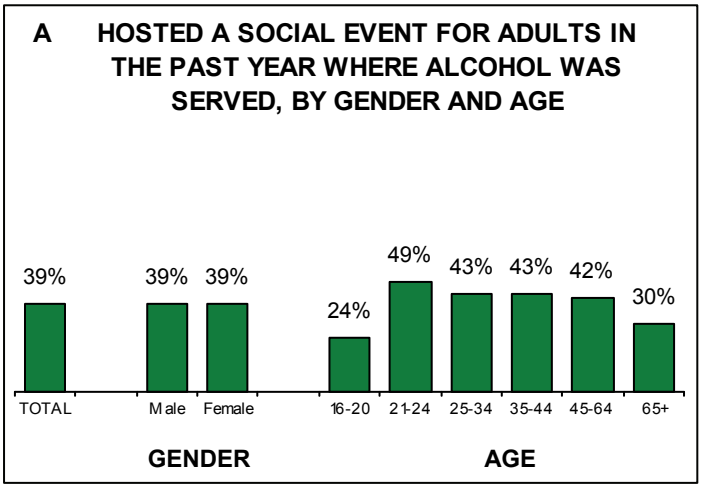
Hosts Who Took Action to Prevent Guests From Driving After Drinking Too Much

Among those who hosted a social event that served alcohol to adults in the past year, 72% said they took action to prevent guests from driving after drinking too much to drive safely. A slightly higher proportion of female hosts (73%) took action compared to male hosts (70%). Among age groups, a larger proportion of younger persons than older adults took action. [Figure 14-C]

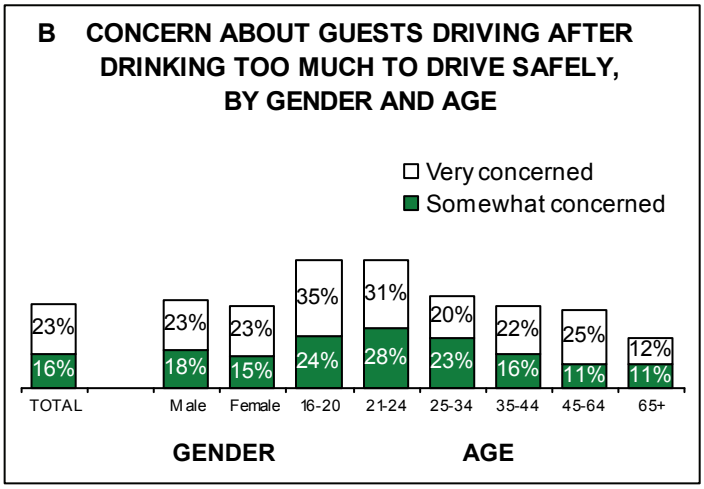
Arrangements by Host to Keep Guests From Driving After Drinking Too Much

Provide sleeping accommodations for the night was the most cited preventive action taken by hosts to keep a guest from driving after drinking too much to drive safely (30%). Collecting guests' keys was the second most frequent preventive measure taken by hosts (15%). [Figure 14-D]

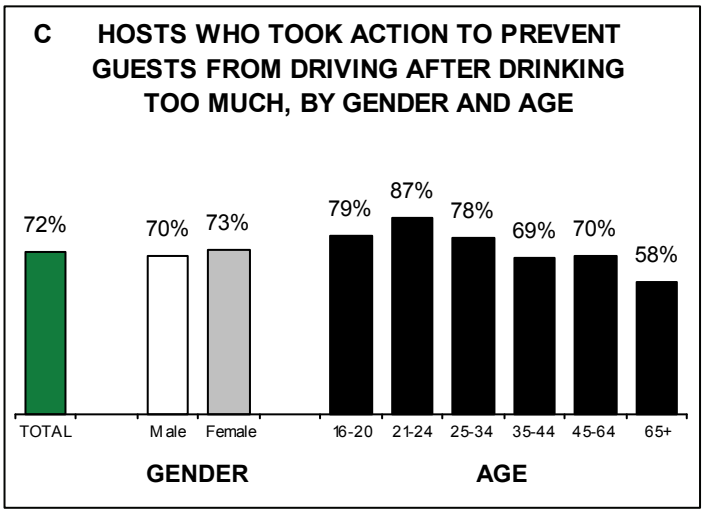
FIGURE 14: CONCERNS AND ACTIONS BY HOSTS TO PREVENT GUESTS FROM DRIVING IMPAIRED



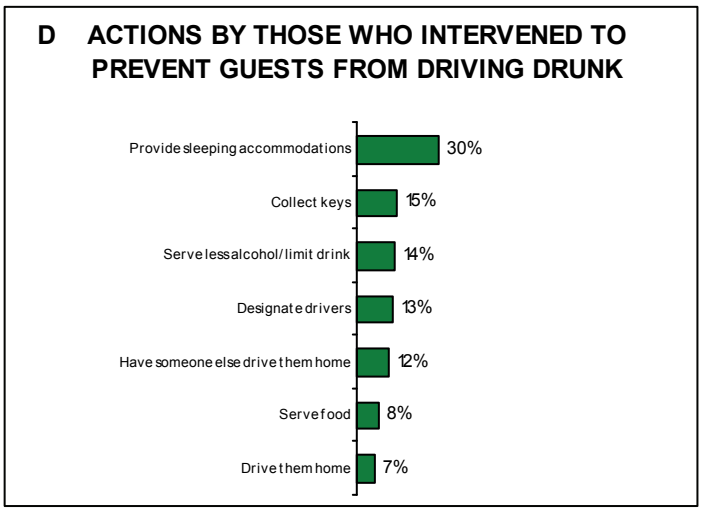
Q86: In the past year, have you hosted a social event or party where alcohol was served to adults?
*[Base: total n=6999**]*



Q87: At the most recent social event (party) you hosted at which you served alcoholic beverages, how concerned were you about having guests from your party drive after drinking too much to drive safely?
*[Base: hosted a social event in past year and served alcohol n=2703**]*



Q88: At this event, what, if anything, did you do to keep guests from driving after drinking too much to drive safely?
*[Base: hosted a social event and served alcohol n=2703**]*



Q88: At this event, what, if anything, did you do to keep guests from driving after drinking too much to drive safely?
*[Base: intervened to prevent driving after drinking n=1910**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548
Hosted social event with alcohol	2703	1215	1488	126	232	466	454	960	441

Use of Designated Drivers

Riding With a Designated Driver

One in three (33%) persons of driving age rode with a designated driver in the past year. Males (35%) were significantly more likely than females (31%) to report riding with a designated driver in the past year. The likelihood of having ridden with a designated driver in the past year peaked at ages 21-24, then steadily decreased with age. [Figure 15-A]

Being the Designated Driver

More than 4 in 10 (44%) drivers have acted as the designated driver for others in the past year, with significantly more females (45%) than males (42%) having done so. Similar to riding with a designated driver, the practice of acting as the designated driver peaked at ages 21-24, then steadily decreased with age. [Figure 15-B]

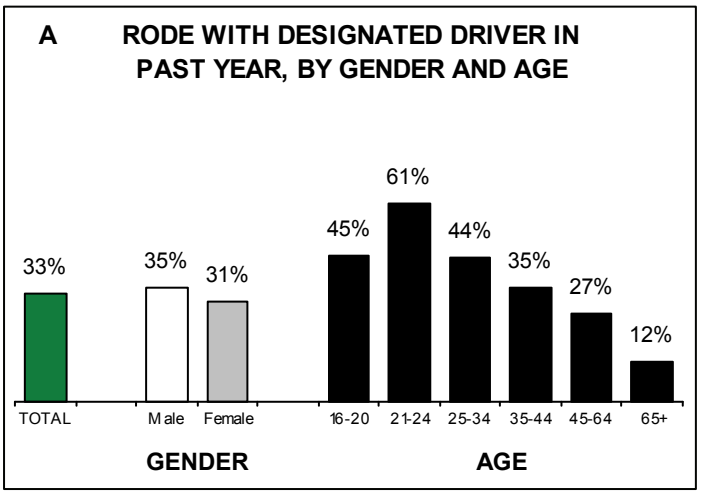
Number of Drinks for Designated Drivers

Nearly two-thirds (65%) of the population age 16 and older believed that a designated driver can safely consume either no drinks or less than one drink. An additional 17% believed that one drink is acceptable for a designated driver. The percentages were similar for those who rode with a designated driver or acted as a designated driver in the past year. [Figure 15-C]

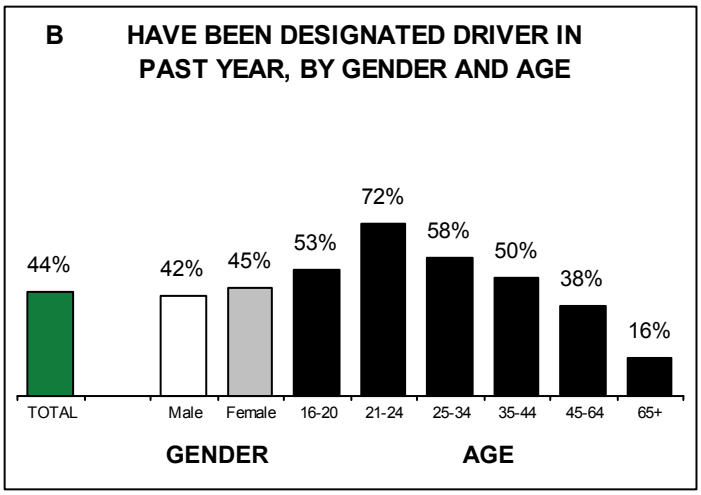
Timing of Decision to Have a Designated Driver

Among those who were the designated driver, 12 percent said that the decision to have a designated driver was made after the drinking had begun. There was little difference across genders and age groups except for the oldest respondents. Twenty-four percent of those age 65 and older said that the decision was made after drinking had begun. [Figure 15-D]

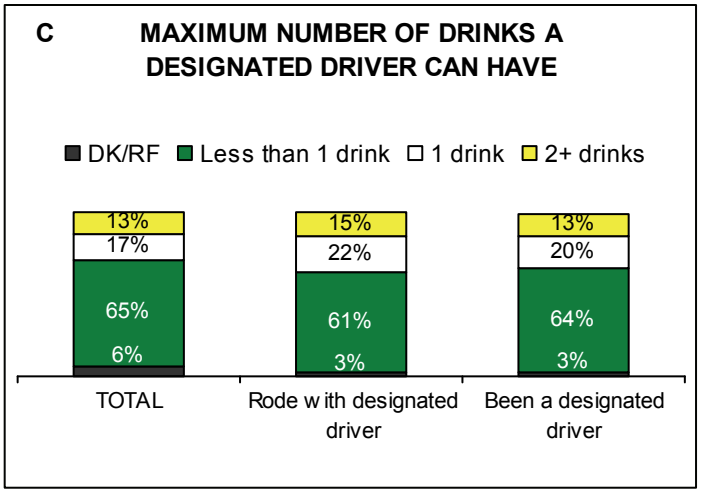
FIGURE 15: USE OF DESIGNATED DRIVERS



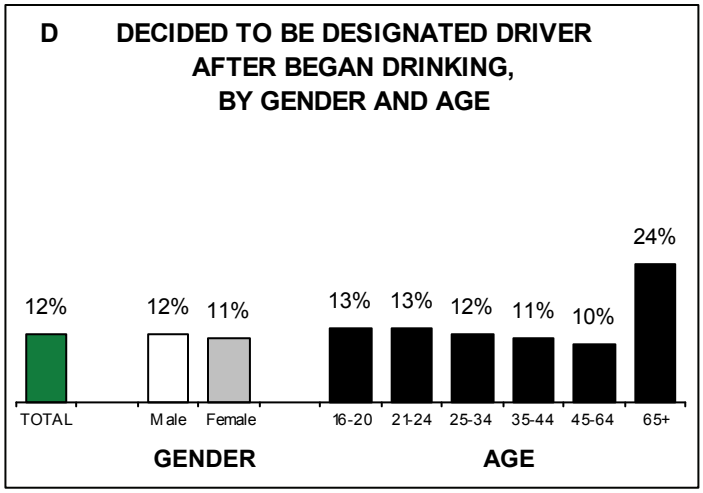
Q61: In the past year, have you ridden anywhere with someone else who had agreed to be the designated driver?
*[Base: total n=6999**]*



Q64b: Have you been a designated driver for other passengers in the past year?
*[Base: drivers n=6432**]*



Q66: What is the maximum number of alcoholic drinks a person can have if he or she is the designated driver?
*[Base: total n=6999, rode with designated driver n=2199, have been a designated driver n=2663**]*



Q65a: Did the decision to have a designated driver for this occasion take place before or after you and your companions began drinking?
*[Base: have been a designated driver, past year n=2663**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1546
Been designated driver, past year	2663	1197	1466	240	312	568	493	823	209
Rode with designated driver, past year	2199	1053	1146	242	294	474	388	608	175
Drivers	6432	2928	3504	456	425	900	957	2278	1357

Personal Responsibility to Intervene

Been With Someone Who May Have Had Too Much to Drink to Drive Safely

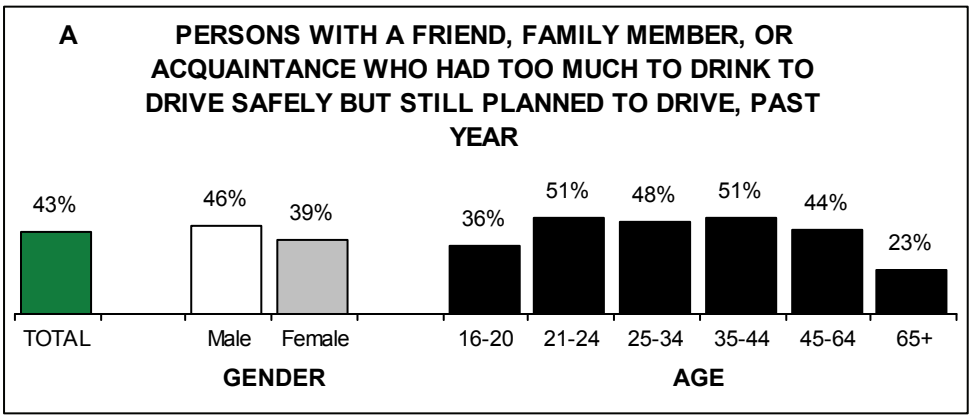
Forty-three percent of all respondents reported having been in a situation in which a friend, family member, or acquaintance had too much to drink to drive safely yet was planning to drive. A greater percentage of males reported being in such a situation compared to females (46% and 39% respectively). In terms of age, the largest percentages of persons who reported being in this predicament were between ages 21 and 44. [Figure 16-A]

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

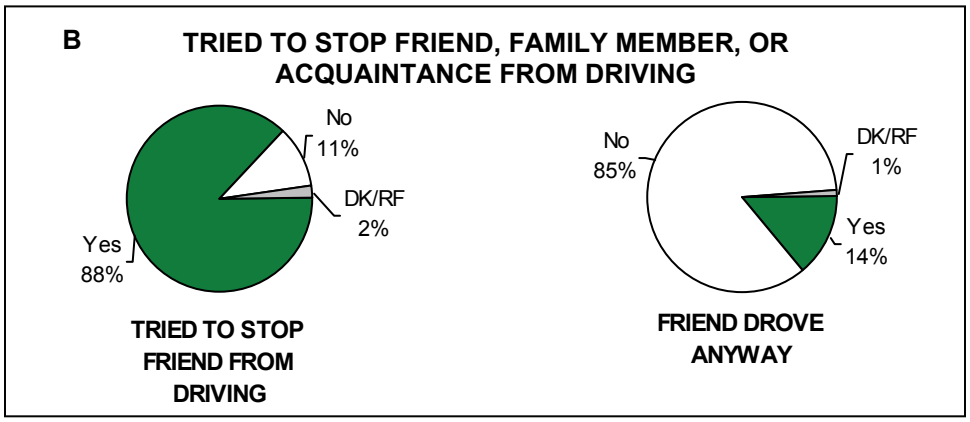
Eighty-eight percent of those who had been with someone who had too much to drink to drive safely tried to stop that person from driving on the most recent occasion. In about 85% of the cases where intervention took place, the potentially impaired individual did not drive. [Figure 16-B]

Regardless of gender or age, a large majority of those who had been with someone who was planning to drive despite drinking too much reported attempting to intervene the last time it occurred. [Figure 16-C]

FIGURE 16: PERSONAL RESPONSIBILITY TO INTERVENE



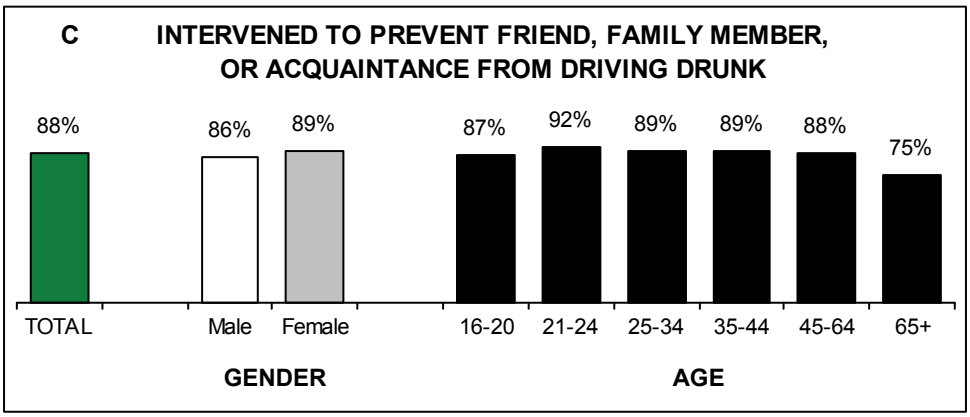
Q96a: Now I'd like to ask you about situations when you were with a friend, family member, or acquaintance who had too much to drink to drive safely, yet was planning on driving? Have you ever been in this type of situation?
*[Base: total n=6999**]*



Q100: Think of the most recent time you were in this situation. Did you do something to try to stop them from driving?
*[Base: with a friend, family member, or acquaintance who had too much to drink to drive safely, one or more times in past year n=2962**]*

Q102: Did they drive anyhow?
*[Base: tried to stop friend, family member, or acquaintance from driving n=2576**]*

FIGURE 16: PERSONAL RESPONSIBILITY TO INTERVENE (CONTINUED)



Q100: Think of the most recent time you were in this situation. Did you do something to try to stop them from driving?
*[Base: with a friend, family member, or acquaintance who had too much to drink to drive safely, one or more times in past year n=2962**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1546
Friend had too much to drink	2962	1425	1537	193	249	505	525	1098	380
Tried to stop friend from driving	2576	1214	1362	166	231	456	469	954	290

Chapter 4: Enforcement of Drinking and Driving Laws

For enforcement of the drinking and driving laws to be effective, those who would potentially violate the laws must perceive a reasonable chance of being detected, stopped, arrested, and receiving a sanction. This chapter examines the driving-age public's experiences with, and perceptions of, enforcement and punishment for drinking and driving violations.

Specifically, this chapter covers the following topics:

- Drinking and driving violations and arrests
- Perceptions about likely drinking-driving outcomes
- Perceptions of likely punishments for drinking-driving violations
- Attitudes about drinking-driving penalties
- Experience with, and attitudes toward, sobriety checkpoints

Drinking and Driving Violations and Arrests

Stopped/Arrested for Drinking and Driving Violation

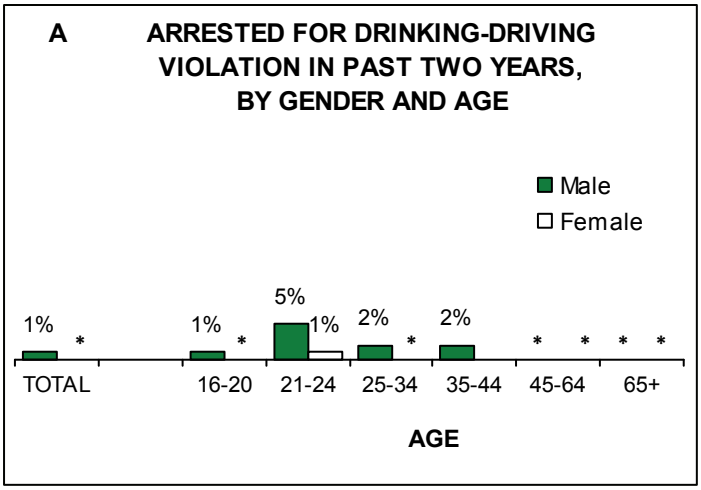
About 1% of the driving-age public reported having been arrested for a drinking and driving violation in the past 2 years. Among males ages 21 to 24, the percentage was 5%. [Figure 17-A]

Drinking-Drivers and Violations

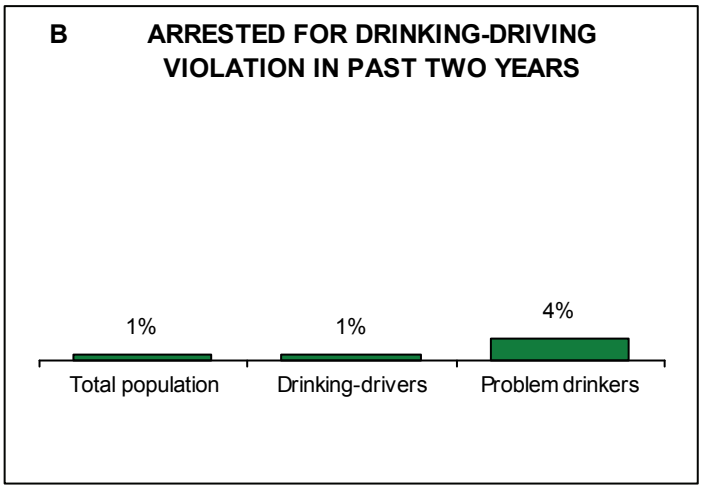
Similar to the total population, about 1% of drinking-drivers had been arrested in the past 2 years for a drinking and driving violation. However, 4% of problem drinkers reported being arrested. [Figure 17-B]

The vast majority of those arrested for drinking and driving violations reported having been arrested once in the past 2 years (97%). The remaining 3% have been arrested twice. [Figure 17-C]

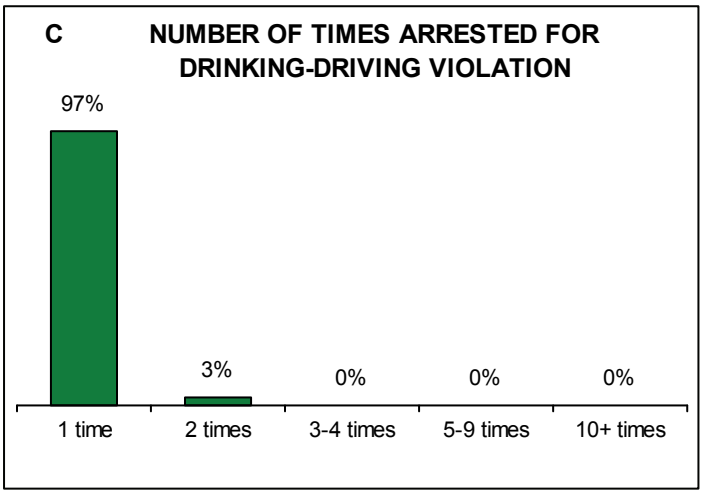
FIGURE 17: DRINKING AND DRIVING VIOLATIONS AND ARRESTS



Q113: Have you been arrested for a drinking and driving violation anytime in the past two years?[14]
*[Base: total n=6999**]*



Q113: Have you been arrested for a drinking and driving violation anytime in the past two years?
*[Base: total n=6999; drinking-drivers n=1466; problem drinkers n=498**]*



Q114: How many times in the past two years?
*[Base: been arrested for drinking-driving violation n=51**]*

**Sample bases for this page:

	Total	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	537	467	961	1005	2412	1548
Male	3132	297	242	471	480	1062	552
Female	3867	240	225	490	525	1350	996

[14] An asterisk (*) denotes less than 0.5%.

Perceptions About Likely Drinking-Driving Outcomes

Likelihood of Being Stopped by Police

Overall, more than 7 in 10 (73%) of the driving-age public believed that drivers would likely be stopped by the police if driving after having too much to drink to drive safely. Twelve percent believed this outcome was almost certain, 21% believed this was very likely, and 40% said it was somewhat likely. [Figure 18-A]

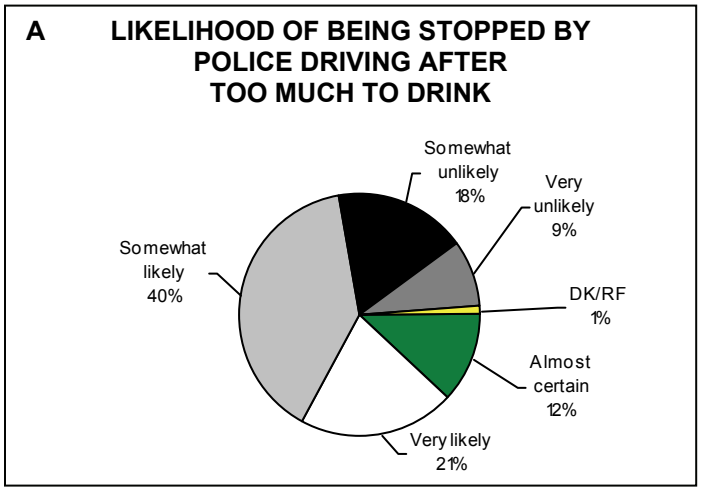
Likelihood of Impaired Drivers Being Stopped by Police Versus Being in a Crash

Seventeen percent of the driving-age population believed that it was "almost certain" that an accident will befall someone who drives after having too much to drink to drive safely. Across all age and gender groups, a greater percentage of respondents was "almost certain" that a crash will occur than was "almost certain" the impaired driver will be stopped by police. [Figure 18-B]

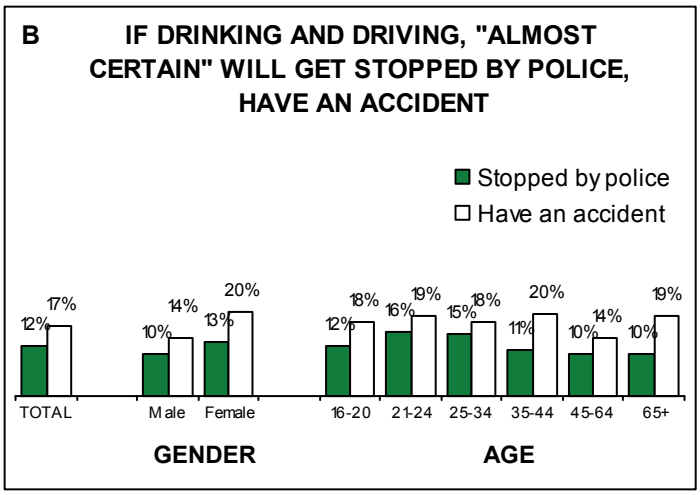
Perceptions of Drinking-Drivers and Other Drivers Who Drink

Past-year drinking-drivers were less likely than other drivers to believe that those who drive after drinking too much are "almost certain" to get stopped by police (4% versus 8%) or to be involved in an accident (6% versus 13%). [Figure 18-C]

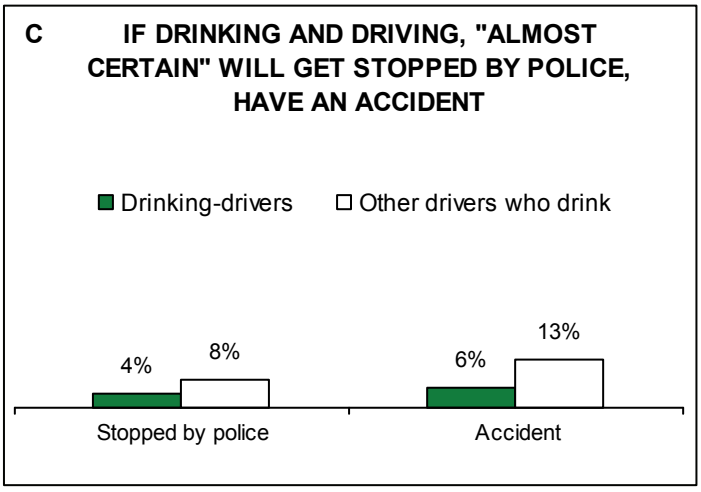
FIGURE 18: PERCEPTIONS ABOUT LIKELY DRINKING-DRIVING OUTCOMES



Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
A. Get stopped by the police?
*[Base: total n=6999**]*



Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
A. Get stopped by the police?
B. Have an accident?
*[Base: total n=6999**]*



Q105a/b: How likely is it that drivers who have had too much to drink to drive safely will…
A. Get stopped by the police?
B. Have an accident?
*[Base: drinking-drivers n=1466, other drivers who drink n=2557**]*

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

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548

Perceptions of Likely Punishment for Drinking-Driving Violations

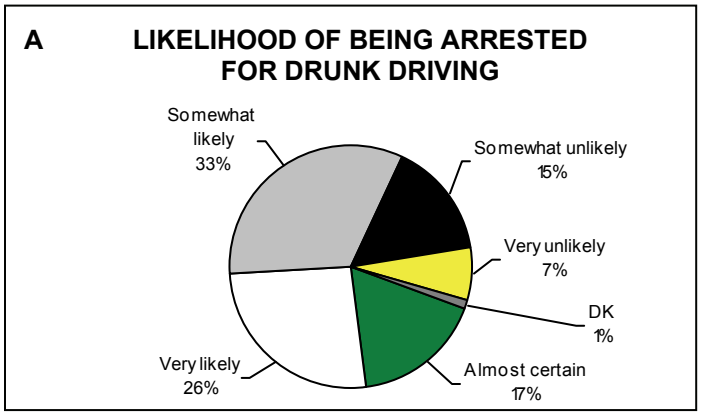
Likelihood of Being Arrested or Convicted for Drunk Driving

Slightly more than three in four persons of driving age (76%) believed that arrest for drunk driving was likely for drivers who had too much to drink to drive safely. Seventeen percent believed that this was "almost certain," 26% believed arrest was "very likely," and 33% believed it was "somewhat likely." [Figure 19-A]

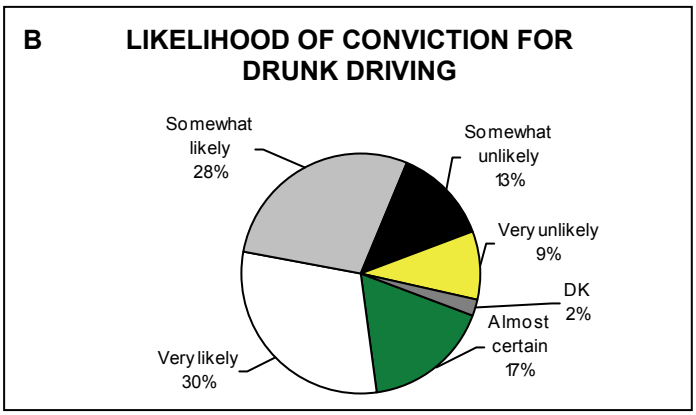
Approximately one in six (17%) persons of driving age believed that conviction for drunk driving was almost certain if someone was driving after having too much to drink to drive safely. Nearly 6 in 10 (58%) believed that conviction would be either very or somewhat likely. [Figure 19-B]

Overall, younger age groups were most likely to believe that an arrest or conviction for drunk driving was almost certain compared to older age groups. [Figure 19-C]

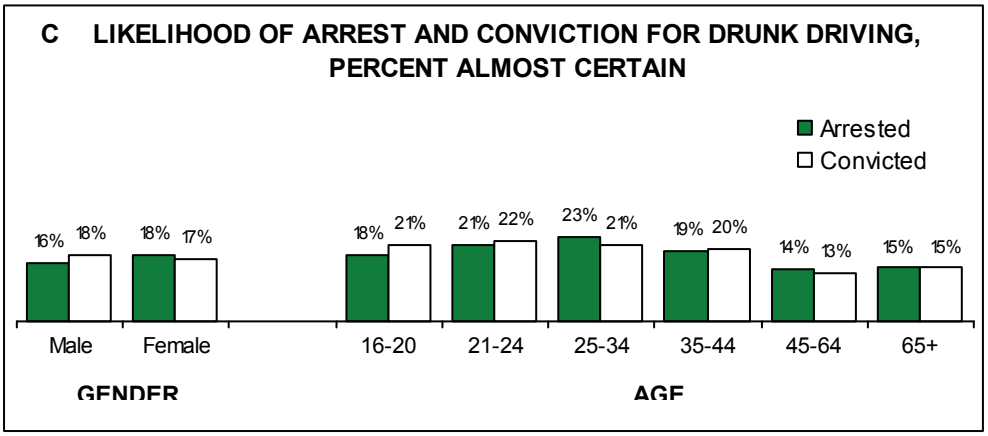
FIGURE 19: PERCEPTIONS OF LIKELY PUNISHMENT FOR DRINKING-DRIVING VIOLATIONS



Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
D. Be arrested for drunk driving?
*[Base: total n=6999**]*



Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
C. Be convicted for drunk driving?
*[Base: total n=6999**]*



Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
C. Be convicted for drunk driving?
D. Be arrested for drunk driving?
*[Base: total n=6999**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548

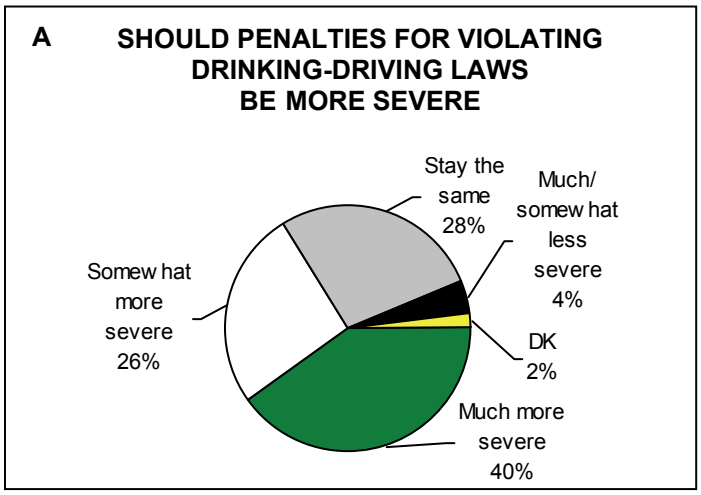
Perceptions About Severity of Drinking-Driving Laws

The driving-age public supports increased penalties for drivers who violate drinking and driving laws. Four in 10 (40%) believed penalties for violators should be much more severe, while an additional 26% thought penalties should be somewhat more severe. Only 4% believed that penalties should be less severe. [Figure 20-A]

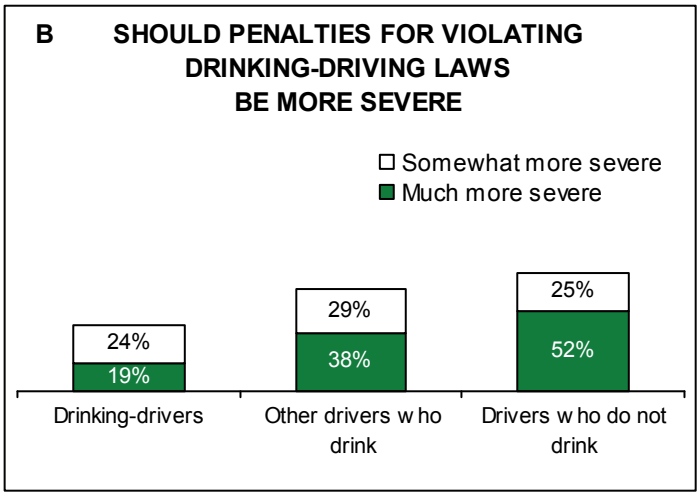
Drinking-Drivers Versus Other Drivers Who Drink

Drinking-drivers were less supportive of increasing the severity of punishments for drinking and driving compared to other drivers who drink. Almost one in five (19%) drinking-drivers agreed that penalties should be much more severe, compared to nearly two in five (38%) drivers who drink but do not drive after drinking. Support for making penalties for violating drinking-driving laws much more severe was highest among drivers who do not drink alcohol at all (52%). [Figure 20-B]

FIGURE 20: ATTITUDES ABOUT DRINKING-DRIVING PENALTIES



Q116: In your opinion, should the penalties for violating the drinking and driving laws be…?
*[Base: total n=6999**]*



Q116: In your opinion, should the penalties for violating the drinking and driving laws be…?
*[Base: drinking-drivers n=1466, other drivers who drink n=2557, drivers who do not drink n=2377**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548
Drinking-drivers	1466	887	579	39	127	270	278	544	198
Other drivers who drink	2557	1071	1486	136	206	384	393	925	489
Drivers who do not drink	2377	956	1421	280	92	241	278	799	661

Experience With, and Attitudes Toward, Sobriety Checkpoints

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

Seen a Sobriety Checkpoint, Past Year

Almost one-third (30%) of the respondents reported that they had seen a sobriety checkpoint in the past year. Males (35%) were more likely than females (25%) to have reported seeing sobriety checkpoints. After age 24, the likelihood of seeing a sobriety checkpoint decreased with age. [Figure 21-A]

Frequency of Sobriety Checkpoints

Sixteen percent of the driving-age public reported having gone through at least one sobriety checkpoint in the past year. [Figure 21-B]

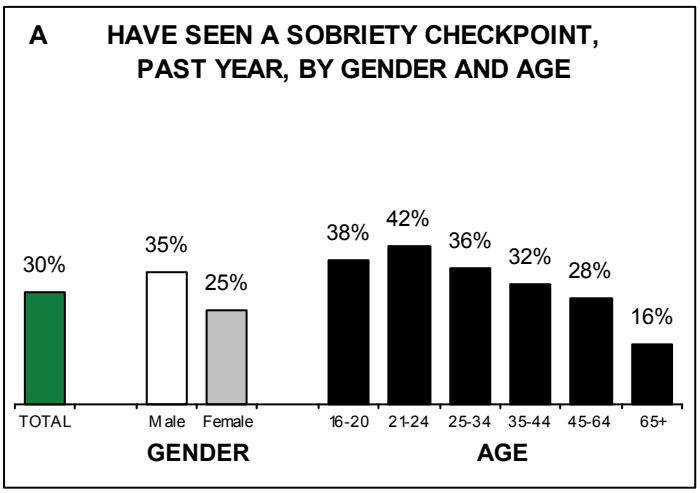
Recommended Frequency of Sobriety Checkpoint Use

Three in four (75%) persons of driving age endorsed weekly or monthly sobriety checkpoints. Only 6% believed that sobriety checkpoints should not be used at all. [Figure 21-C]

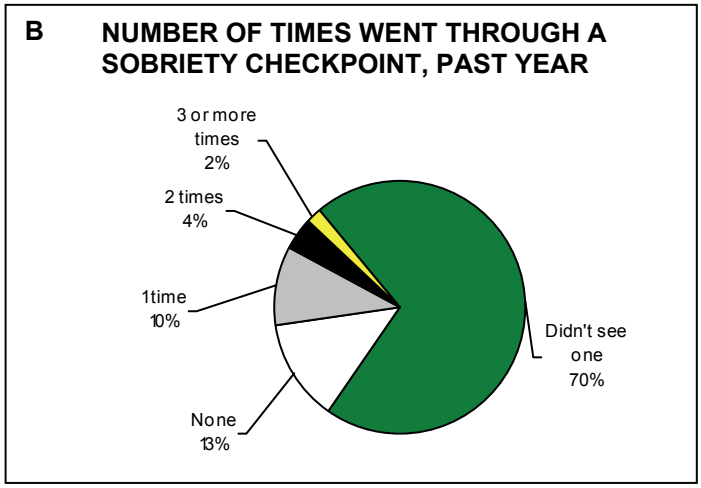
Drinking-Drivers Versus Other Drivers Who Drink

Consistent with perceptions about other forms of enforcement and penalties, drinking-drivers (27%) were less likely than other drivers who drink (39%) to believe that sobriety checkpoints should be used weekly. Drivers who do not drink alcohol were most likely to believe that checkpoints should be used weekly (47%). [Figure 21-D]

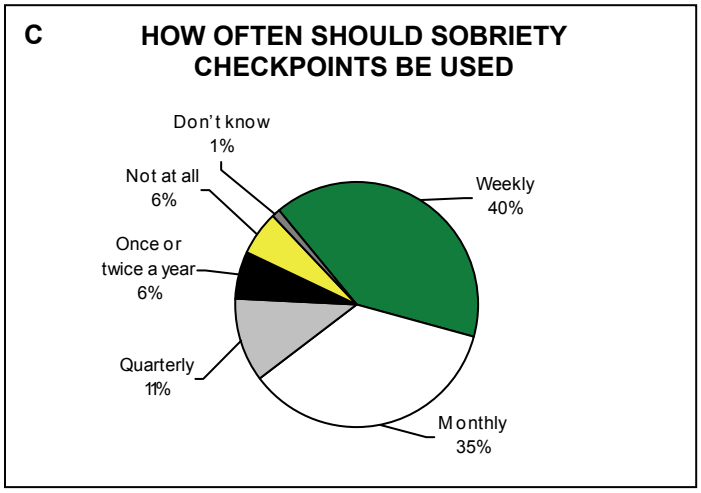
FIGURE 21: PERCEPTIONS AND USE OF SOBRIETY CHECKPOINTS



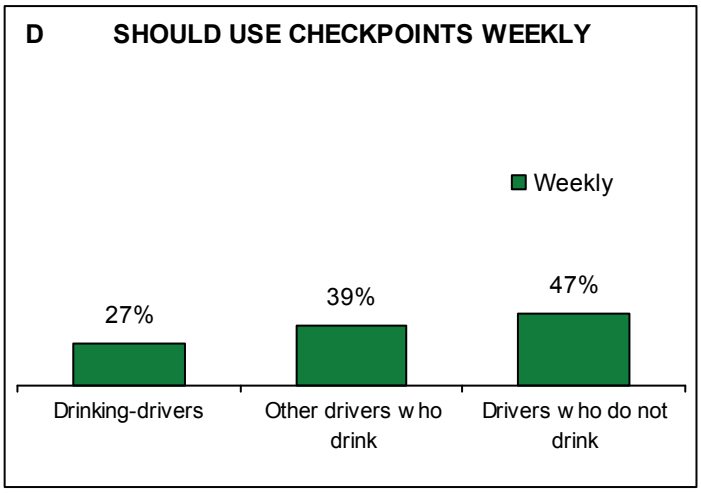
Q120: In the past 12 months, have you seen a sobriety checkpoint, where drivers are stopped briefly by police to check for alcohol-impaired driving?
*[Base: total n=6999**]*



Q121: How many times have you been through a sobriety checkpoint in the last 12 months?
*[Base: total n=6999**]*



Q122c.: About how often do you think sobriety checkpoints should be conducted?
*[Base: total n=6999**]*



Q122c: About how often do you think sobriety checkpoints should be conducted?
*[Base: drinking-drivers n=1466, other drivers who drink n=2557, drivers who do not drink n=2377**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548
Drinking-drivers	1466	887	579	39	127	270	278	544	198
Other drivers who drink	2557	1071	1486	136	206	384	393	925	489
Drivers who do not drink	2377	956	1421	280	92	241	278	799	661

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

The amount of alcohol in a person's body can be measured in terms of the Blood Alcohol Concentration (BAC) level. All 50 States and the District of Columbia have laws defining it as a crime to drive with a BAC level at or above 0.08 percent.

This chapter examines the driving-age public's awareness and perceptions regarding the following BAC level topics:

- Awareness of Blood Alcohol Concentration (BAC)
- Awareness and knowledge of minimum drinking age
- Knowledge of amount of alcohol to reach the legal BAC limit

Awareness of Blood Alcohol Concentration (BAC)

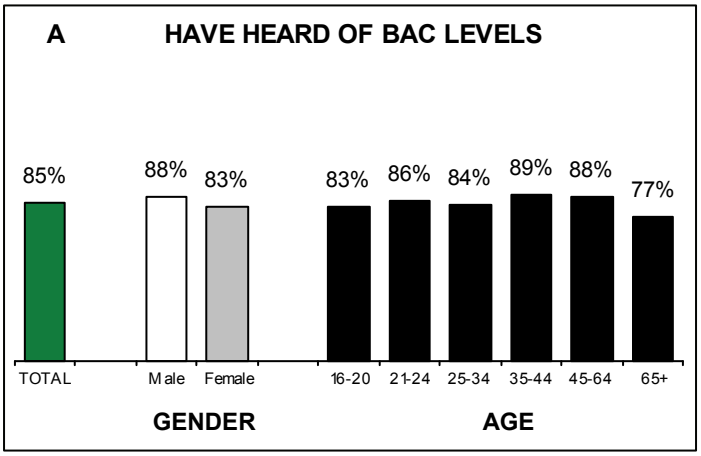
Have Heard of BAC Levels

More than four in five (85%) persons of driving age had heard of blood alcohol concentration (BAC) levels. Males (88%) were somewhat more likely to have heard of BAC levels than were females (83%). Persons 65 and older were the least likely to have heard of BAC. [Figure 22-A]

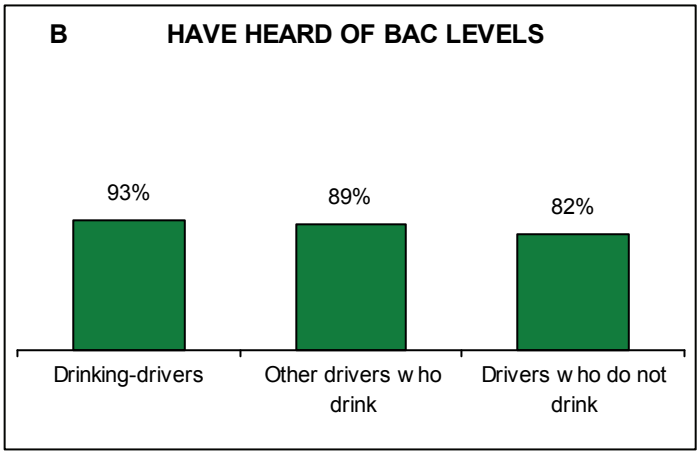
Awareness Among Drinking-Drivers

Drinking-drivers were more likely to have heard of BAC levels than were other drivers; 93% expressed awareness as compared to 89% of other drivers who drink but do not drive after drinking and 82% of drivers who do not drink. [Figure 22-B]

FIGURE 22: HEARD OF BLOOD ALCOHOL CONCENTRATION OR BAC LEVELS



*Q123: 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 ever heard of blood alcohol concentration or BAC levels before today? [Base: total n=6999**]*



*Q123: 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 ever heard of blood alcohol concentration or BAC levels before today? [Base: drinking-drivers n=1466, other drivers who drink n=2557, drivers who do not drink n=2377**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548
Drinking-drivers	1466	887	579	39	127	270	278	544	198
Other drivers who drink	2557	1071	1486	136	206	384	393	925	489
Drivers who do not drink	2377	956	1421	280	92	241	278	799	661

Awareness and Knowledge of Minimum Drinking Age

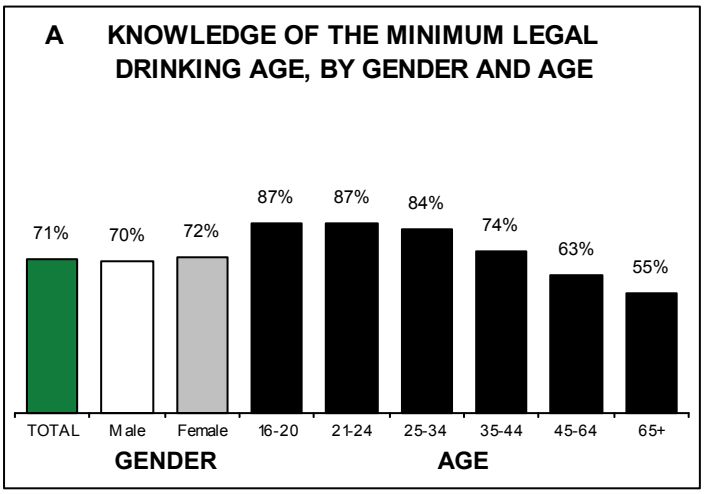
Awareness of a Minimum Drinking Age

Seventy-one percent of the driving-age population were aware that there is a minimum drinking age. There was no significant difference in awareness between males and females. Teenagers and young adults were most likely to be aware; the percentage then declined with age. [Figure 23-A]

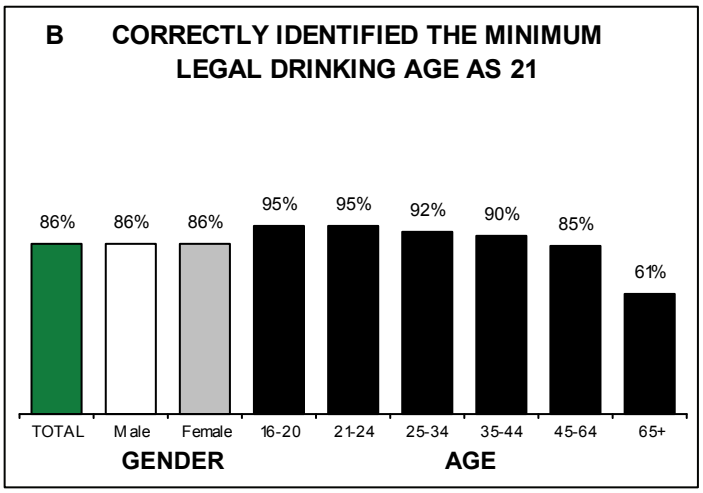
Accurate Knowledge of the Minimum Drinking Age

Individuals who reported knowing that a minimum drinking age exists were asked what the actual minimum drinking age was. Eighty-six percent correctly stated that the minimum drinking age is 21. This did not differ by gender. Individuals between 16 and 24 years of age were significantly more likely than others to correctly state the minimum drinking age. Adults age 65 and older were least likely to give the correct minimum legal drinking age. [Figure 23-B]

FIGURE 23: AWARENESS AND KNOWLEDGE OF MINIMUM DRINKING AGE



Q139a. To your knowledge, is there a national minimum drinking age in the United States?
*[Base: total n=6999**]*



Q139b. What is the minimum drinking age in the United States?
*[Base: believe there is a minimum drinking age n=4754**]*

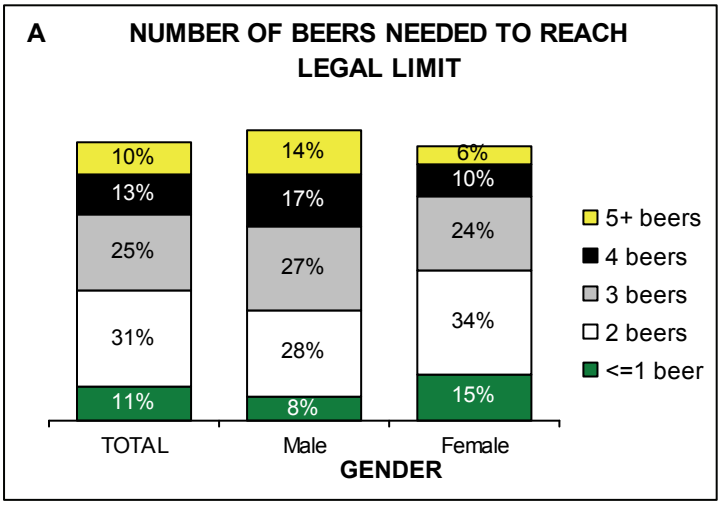
**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548
Believe there is a minimum drinking age	4754	2121	2633	473	411	803	739	1453	837

Knowledge of Amount of Alcohol to Reach the BAC Limit

It would take an average 170-pound male more than four drinks within a 2-hour period to reach a BAC level of .08, while it would take more than three drinks in 2 hours for an average 137-pound female to reach a .08 BAC level. The data suggested underestimation by the public in the perceived amount of alcohol it would take to reach the legal limit as 31% of males believed it would take four or more beers and 40% of females believed it would take three or more beers. [Figure 24-A]

FIGURE 24: KNOWLEDGE OF AMOUNT OF ALCOHOL TO REACH THE BAC LIMIT



Q126: The legal limit in your state is .08. In your opinion, how many 12 ounce beers would a male/female about your height and weight have to drink in a two-hour period to just reach the legal limit of .08?
*[Base: total n=6999, male n=3132, female n=3867**]*

Chapter 6: Motor Vehicle Crash and Injury Experience

NHTSA's goal is to reduce the fatalities, injuries, and costs associated with motor vehicle crashes. The annual costs to society associated with injuries and disabilities from such crashes are estimated in the billions of dollars. As such, understanding the crash experience of non-fatal crashes is an important piece in comprehending the overall picture. This chapter examines experiences in motor vehicle crashes as both a passenger and a driver.

Specifically, this chapter covers the following topics:

- Involvement in a motor vehicle crash in the past 2 years
- Crash experience of different drinking and driving types

Involvement in a Motor Vehicle Crash, Past Two Years

Involved in Vehicle Crash, Past Two Years

About one in seven (13%) persons has been involved in a crash that resulted in vehicle damage in the past 2 years. This percentage was slightly higher for males (15%) than for females (12%). Additionally, the percentages were considerably higher among individuals under the age of 25. Approximately one in five persons ages 16 to 20 and 21 to 24 were involved in a motor vehicle crash in the 2 years prior to the survey (20% and 22%, respectively). [Figure 25-A]

Crashes Where Driver Consumed Alcohol Prior to Crash

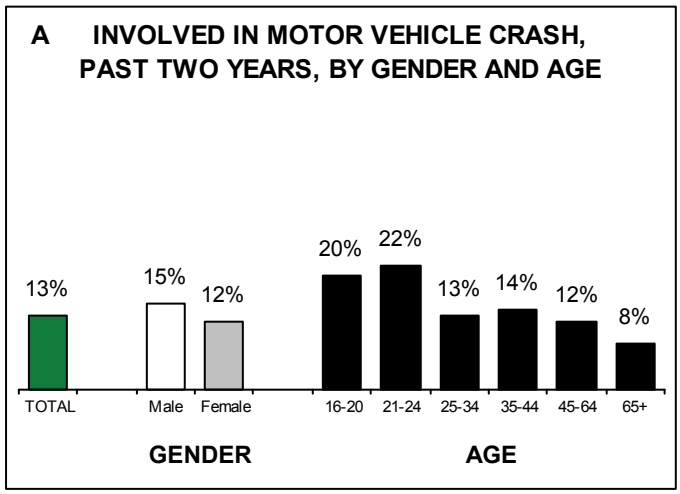
Eleven percent of those involved in a crash in the past 2 years reported that the (most recent) crash involved a driver who had been drinking alcohol. Similar percentages of females and males reported an alcohol-involved crash (11% and 10% respectively). Individuals between ages 25 and 34 were most likely to report that the crash they experienced involved a driver who had been drinking (20%). [Figure 25-B]

Injury Experienced in Motor Vehicle Crash

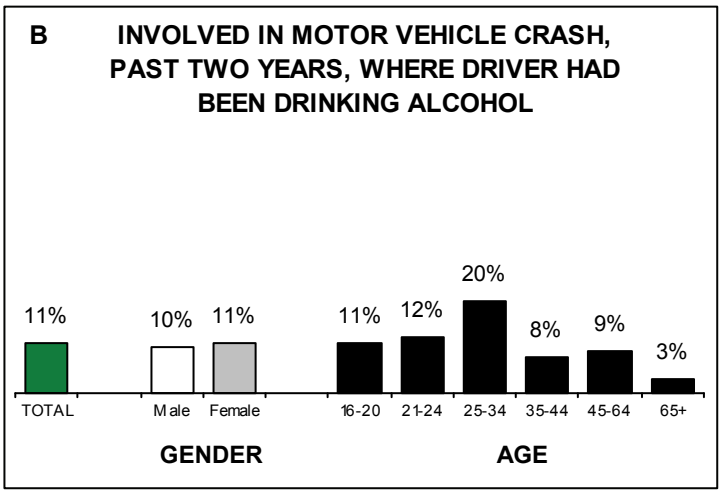
Twenty percent of those individuals involved in a crash in the past 2 years reported that the (most recent) crash resulted in an injury to someone. Proportionally more crash-involved males (22%) than crash-involved females (18%) reported an injury. Crash-involved 25- to-34-year-olds (26%) were most likely to report an injury across age groups. [Figure 25-C]

In almost one-third (32%) of all crashes that resulted in an injury, the driver of the vehicle had been drinking alcohol. In contrast, 5% of non-injury crashes involved a driver who had been drinking alcohol. [Figure 25-D]

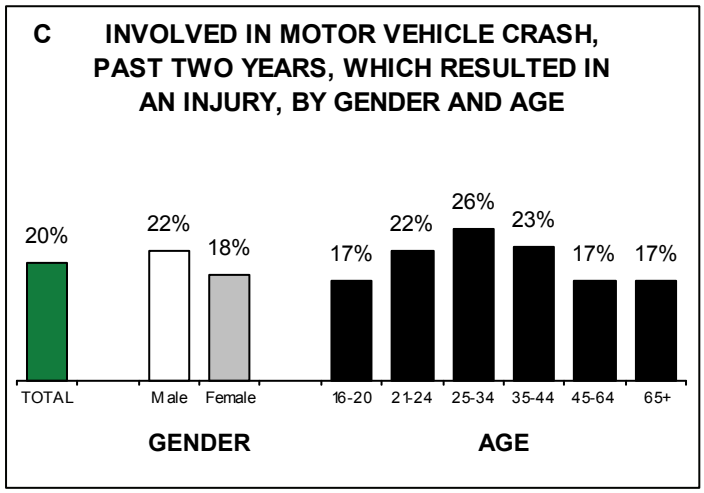
FIGURE 25: INVOLVEMENT IN MOTOR VEHICLE CRASH, PAST TWO YEARS



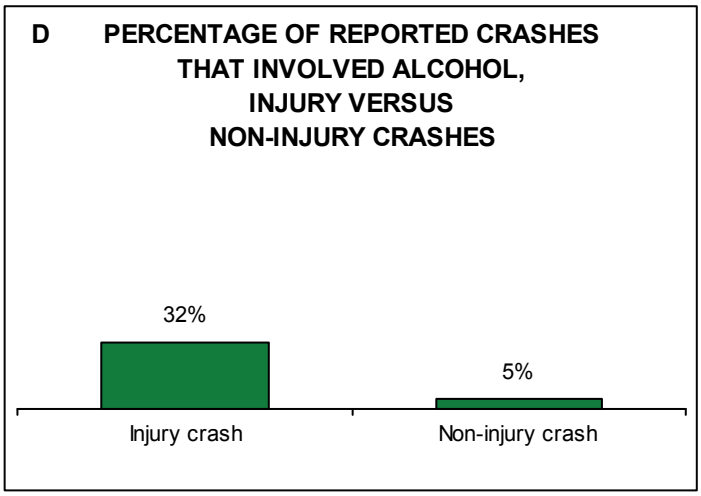
Q131a: In the past two years, have you been involved in a motor vehicle crash in which there was damage to your vehicle or another vehicle?
*[Base: total n=6999**]*



Q132a: In the most recent occurrence, was there a driver involved who had been drinking alcohol?
*[Base: involved in crash, past two years n=940**]*



Q131a/133: In the past two years, have you been involved in a motor vehicle crash in which there was damage to your vehicle or another vehicle? Was anyone injured in this crash?
*[Base: involved in crash, past two years n=940**]*



Q131a/133: In the past two years, have you been involved in a motor vehicle crash in which there was damage to your vehicle or another vehicle? Was anyone injured in this crash?
*[Base: involved in crash and injured in the crash, past two years n=180, involved in crash and not injured in the crash, past two years n=758**]*

**Sample bases for this page:

	Total	Male	Female	16-20	21-24	25-34	35-44	45-64	65+
Total	6999	3132	3867	537	467	961	1005	2412	1548
Involved in crash	940	453	487	116	110	139	143	291	135

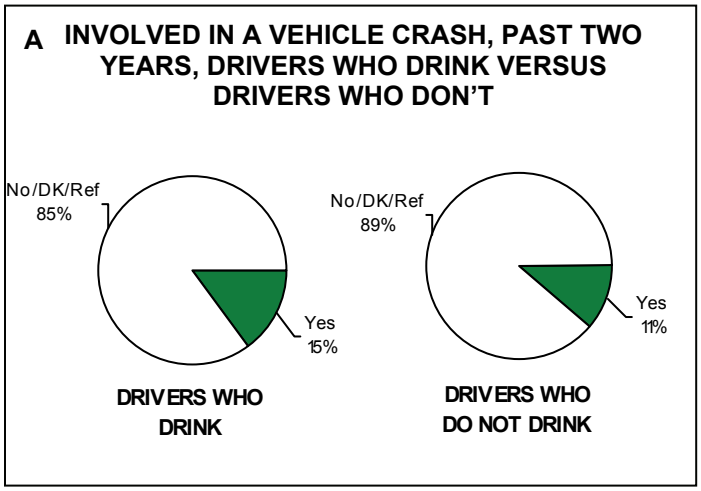
Crash Experience of Different Drinking and Driving Types

Drivers who drink were slightly more likely to have been involved in a motor vehicle crash in the past 2 years than were drivers who do not drink (15% versus 11%, respectively). Their involvement could have been as either a driver or passenger. [Figure 26-A]

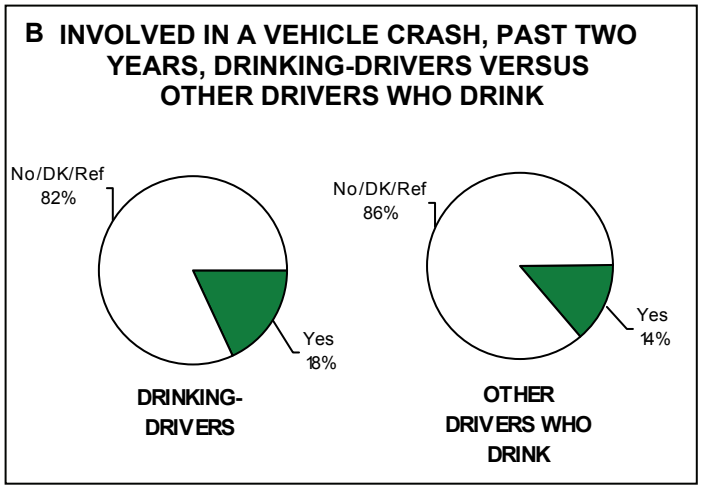
Drinking-drivers were slightly more likely to report involvement in a motor vehicle crash in the past 2 years than were other drivers who drink, but do not drive after drinking (18% compared to 14% respectively). Again, involvement could have been as either a driver or passenger, as with the analysis described below. [Figure 26-B]

Problem drinkers who are drinking-drivers did not differ in their reported crash involvement over the past 2 years from other drinking-drivers (18% for both). [Figure 26-C]

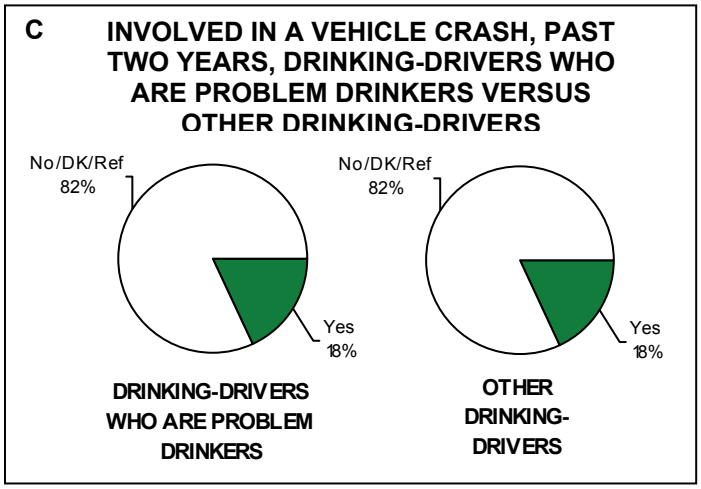
FIGURE 26: CRASH EXPERIENCE OF DIFFERENT DRINKING AND DRIVING TYPES*



Q131a: In the past two years, have you been involved in a motor vehicle crash in which there was damage to your vehicle or another vehicle?
[Base: drivers who drink n=4023, drivers who do not drink n=2377]



Q131a: In the past two years, have you been involved in a motor vehicle crash in which there was damage to your vehicle or another vehicle?
[Base: drinking-drivers n =1466, other drivers who drink n=2557]



Q131a: In the past two years, have you been involved in a motor vehicle crash in which there was damage to your vehicle or another vehicle?
[Base: drinking-drivers who are problem drinkers n=274, other drinking-drivers n=1192]

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

Chapter 7: Effectiveness of Strategies to Reduce or Prevent Drunk Driving

While many actions could be taken to reduce or prevent alcohol-impaired driving, strategies and programs that do not have the support of the general public may not be accepted and embraced and ultimately may fail.

This chapter assesses:

- Perceived effectiveness of strategies to reduce drunk driving
- Perceived appropriateness of potential penalties for first-time drunk-driving offenses

Perceived Effectiveness of Strategies to Reduce Drunk Driving

The driving-age public was asked to rate the effectiveness of eight specific strategies in reducing or preventing drunk driving. Of the eight strategies rated, requiring a breath-testing device in vehicles that prevents the vehicle from starting if the driver has been drinking was perceived to be most effective. More than 6 in 10 (63%) of all respondents believed this strategy would be very effective, and more than one-half (54%) of drinking-drivers believed so.

More than one-half (54%) of all respondents considered three additional strategies very effective: 1) providing people who had too much to drink an alternative way of getting home other than driving themselves, 2) suspending the licenses of drunk drivers, and 3) impounding or seizing the vehicle of drunk drivers. For all three alternatives, drinking-drivers were less likely to perceive these alternatives as very effective (45%, 38%, and 40% for each strategy, respectively).

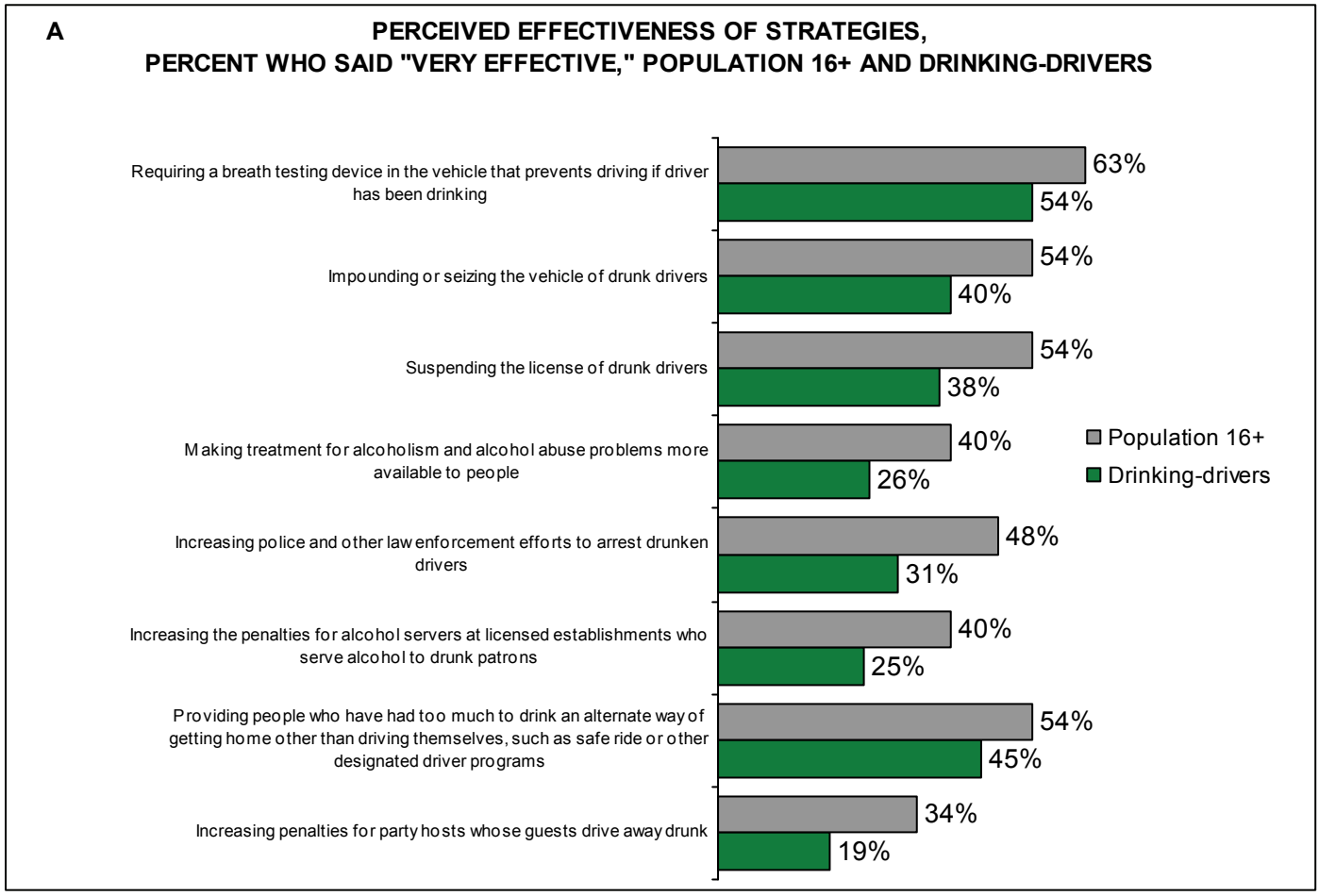
Just less than one-half (48%) of all respondents believed that increasing police and other law-enforcement efforts to arrest drunk drivers would be very effective; less than one-third (31%) of drinking-drivers held this belief. Other strategies were viewed by smaller proportions of respondents as very effective: 1) increasing penalties for party hosts whose guests drive away drunk (34% overall, 19% of drinking-drivers), 2) increasing penalties for alcohol servers who sell to drunk patrons at licensed establishments (40% overall, 25% of drinking-drivers), and 3) making treatment for alcoholism and alcohol-abuse problems more available (40% overall, 26% of drinking-drivers). [Figure 27-A]

Perceptions of Strategies by Age Group

Across all strategies but one, a smaller percentage of young adults ages 16-24 believed the major strategies to reduce drunk driving are very effective compared to adults older than age 24. One strategy appealed about equally to both younger and older adults: providing people with an alternate way of getting home. Fifty-five percent of those ages 16 to 24 and 54% of those age 25 and older agreed this strategy would be very effective. [Figure 27-B]

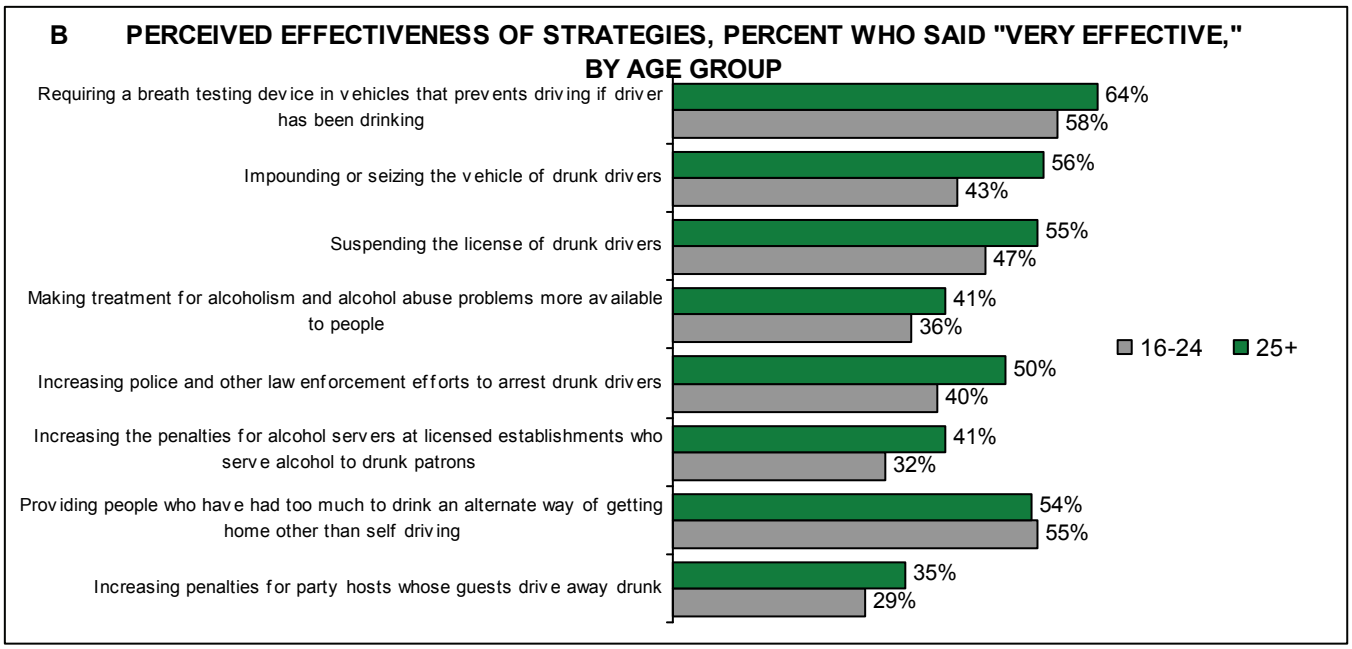
Past-year drinking-drivers, in both age groups, were less likely than the driving-age population as a whole to rate the major strategies to reduce drunk driving as very effective. The exception was alternative transportation, where 62% of drinking-drivers ages 16-24 considered it very effective compared to 55% of all persons ages 16-24. [Figures 27B and 27-C]

FIGURE 27: PERCEIVED EFFECTIVENESS OF STRATEGIES TO REDUCE DRUNK DRIVING

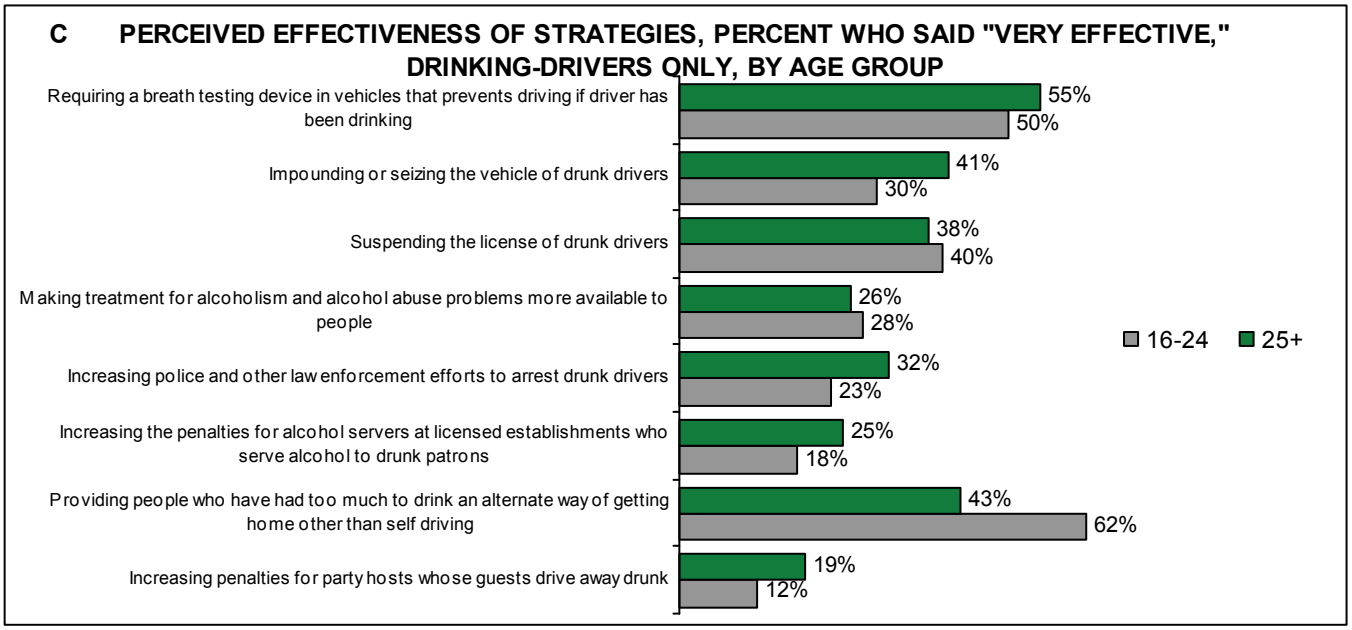


Q139: In your opinion, how effective do you think each of the following strategies would be?
*[Base: total n=6999, drinking-drivers n=1466**]*

FIGURE 27: PERCEIVED EFFECTIVENESS OF STRATEGIES TO REDUCE DRUNK DRIVING (CONTINUED)



Q139: In your opinion, how effective do you think each of the following strategies would be?
*[Base: total n=6999**]*



Q139: In your opinion, how effective do you think each of the following strategies would be?
*[Base: drinking-drivers n =1466**]*

**Sample bases for this page:

	Total	16-24	25+
Total	6999	1004	5926
Drinking-drivers	1466	166	1291

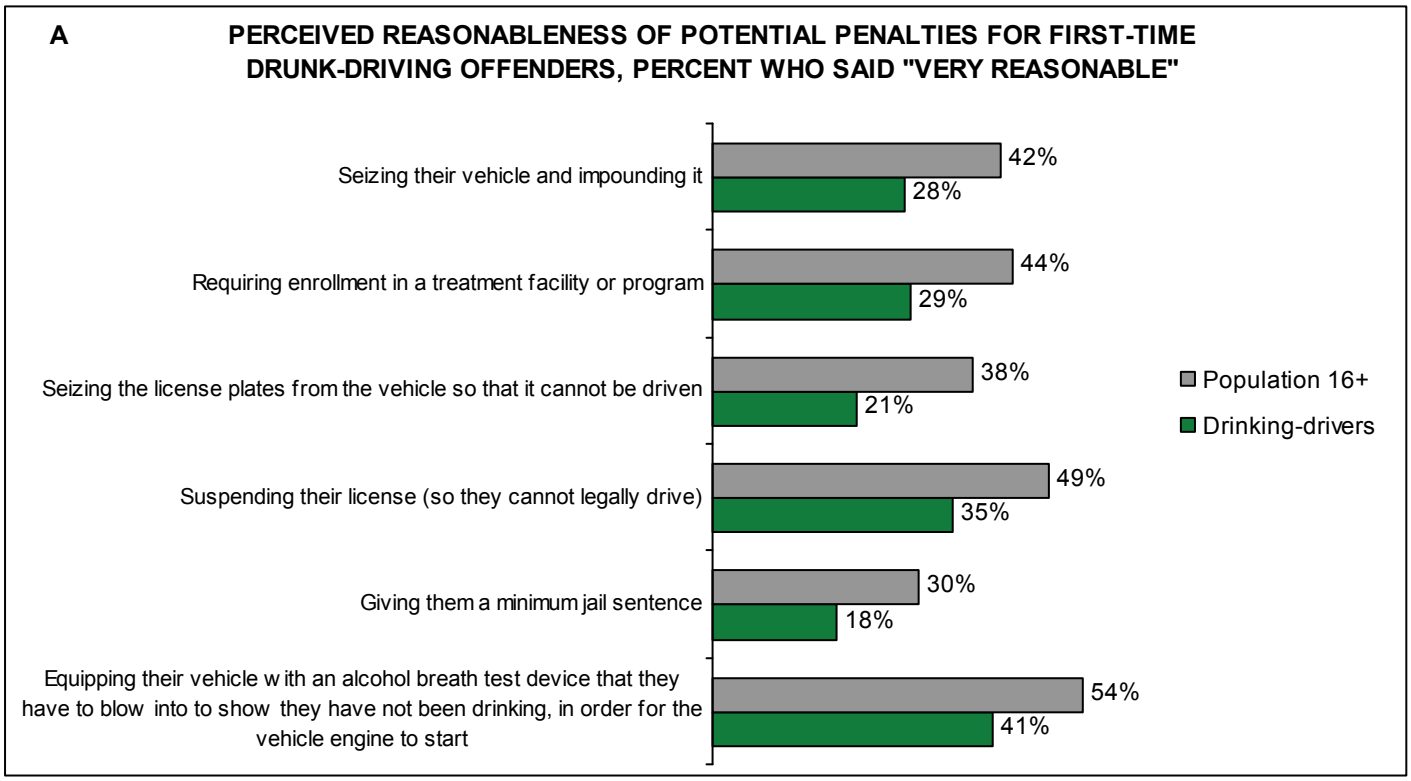
Perceived Appropriateness of Potential Penalties for First-Time Drunk-Driving Offenders

The driving-age public was asked to rate the reasonableness of six potential penalties for first-time drinking and driving law violations. Respondents perceived that the most reasonable penalties were having a breath-testing device installed in the vehicle to prevent the vehicle from starting if alcohol was detected (54% very reasonable) and suspending the offender's license (49% very reasonable). Although these two penalties were also viewed as very reasonable by drinking-drivers, a smaller proportion held this view compared to the rest of the driving-age public (41% for the breath-testing device, 35% for suspending the offender's license).

More than 4 in 10 of all respondents rated two other potential penalties as very reasonable: seizing and impounding the vehicle (42%) and requiring enrollment in a treatment facility or program (44%). Less than 3 in 10 drinking-drivers rated these two penalties as very reasonable, however.

Fewer respondents believed that seizing the license plates (38%) or imposing a minimum jail sentence (30%) were very reasonable penalties for first-time offenders. [Figure 28-A]

FIGURE 28: PERCEIVED APPROPRIATENESS OF POTENTIAL PENALTIES FOR FIRST-TIME DRUNK-DRIVING OFFENDERS



Q140a: How reasonable do you think each of the following penalties are for FIRST TIME drinking and driving law violations?
[Base: total n=6999, drinking-drivers n=1466]

Chapter 8: Social Events for Youth Under 21: Concerns and Actions by Hosts to Prevent Guests From Drinking and Driving

This chapter examines concerns and actions taken to prevent youth under the age of 21 from drinking at social events, and from drinking and driving.

Social Events for Youth Under 21: Concerns and Actions by Hosts to Prevent Guests From Drinking and Driving

Hosted a Social Event for Youth Under 21

Eleven percent (11%) of all respondents reported hosting a social event for youth under the age of 21 in the past year; this percentage did not vary by gender. One in five (20%) 16- to 20-year-olds hosted a social event for youth under the age of 21. [Figure 29-A]

Monitored to Prevent Alcohol Consumption by Guests Under 21

Among respondents who hosted a social event for youth under the age of 21, 76% stated that there was monitoring at the event to prevent guests under the age of 21 from consuming alcohol. Eighty-percent (80%) of females and 71% of males reported monitoring at these events. The percentage of those who reported monitoring guests increased with age through age 64. [Figure 29-B]

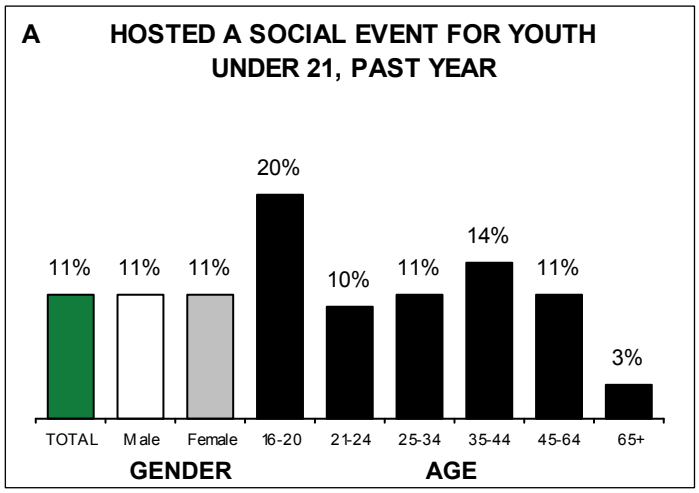
Hosted a Social Event Where Alcohol Was Consumed by Guests Under 21

Among respondents who hosted a social event for youth under the age of 21, 15% stated that alcohol was consumed by youth under the age of 21. A higher percentage of males than females hosted events where alcohol was consumed by underage youth (21% and 10% respectively). The highest percentages were among younger age groups; 49% of 16- to 20-year-old hosts and 36% of 21- to 24-year-old hosts reported holding events at which underage youths consumed alcohol. [Figure 29-C]

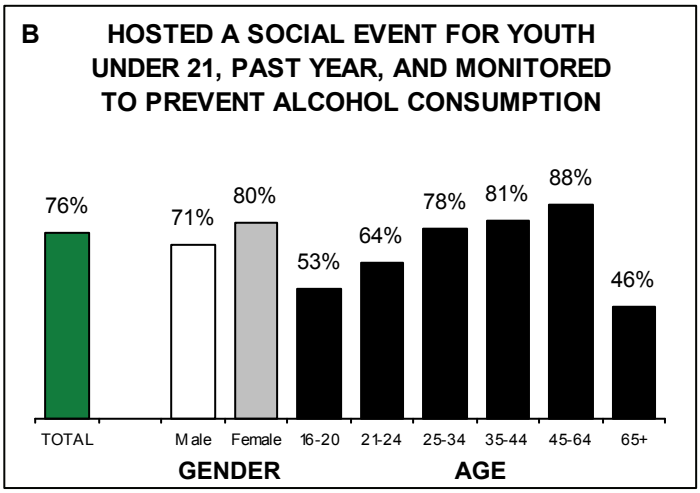
Actions Taken by Hosts to Prevent Impaired Driving by Guests Under 21

Respondents who reported hosting a party that was attended by individuals under the age of 21 were asked what steps (if any) were taken to keep guests under the minimum drinking age from driving after drinking too much to drive safely. About one in four (28%) reported doing nothing. Twenty-four percent of young hosts reported that they provided sleeping accommodations, while 25% of all hosts reported that they did not serve alcohol. [Figure 29-D]

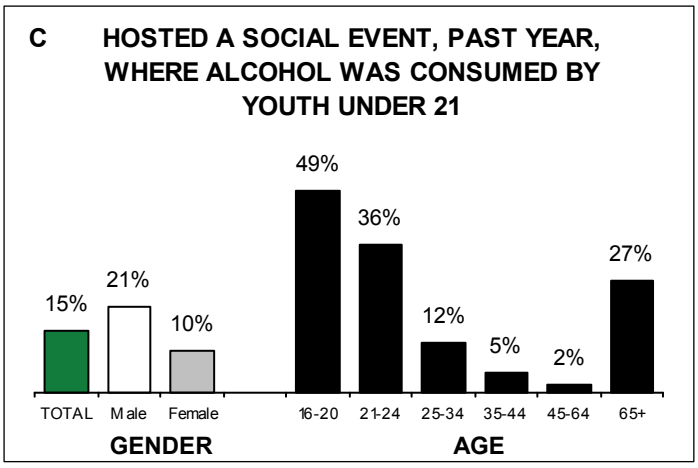
FIGURE 29: SOCIAL EVENTS FOR YOUTH UNDER 21: CONCERNS AND ACTIONS BY HOSTS TO PREVENT GUESTS FROM DRINKING AND DRIVING



Q89. In the past year, have you hosted a social event or party for youth under the age of 21?
*[Base: total n=6999**]*

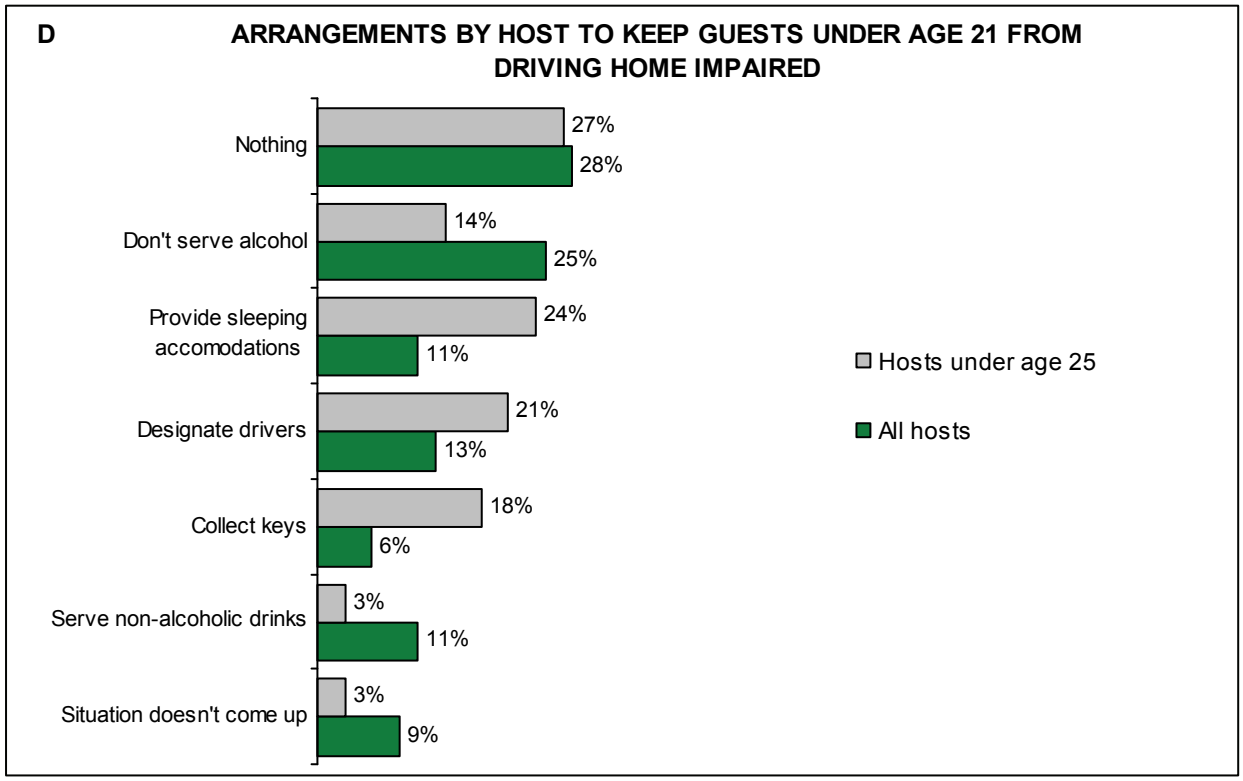


Q90: During the most recent youth event you hosted, was there monitoring to prevent guests under age 21 from drinking alcohol?
*[Base: hosted a social event or party for youth under 21 n=609**]*



*Q90a. At this event, did any of the youth under age 21 drink alcohol ? [Base: hosted a social event or party for youth under 21 n=609**]*

FIGURE 29: SOCIAL EVENTS FOR YOUTH UNDER 21: CONCERNS AND ACTIONS BY HOSTS TO PREVENT GUESTS FROM DRINKING AND DRIVING (CONTINUED)



Q91. At this event, what, if anything, did you do to keep youths under age 21 from driving after drinking too much to drive safely?
*[Base: respondents that hosted party for youth under 21 n=609**]*

**Sample bases for this page:

	Total	16-24
Total	6999	1004
Hosted party for youth	609	158

Section II: Racial and Ethnic Group Comparisons

Chapter 9: Racial and Ethnic Group Comparisons - 2008

While global programs and strategies can be useful in reducing drinking-driving episodes and resulting crashes, a NHTSA goal is to identify differences in behaviors and attitudes among racial and ethnic groups in order to address individual group needs. The 2008 survey collected data from diverse racial and ethnic groups including Non-Hispanic Whites, Non-Hispanic Blacks, Asians, American Indians/Alaska Natives, and Hispanics. However, because of the small sample sizes for several of these groups, many chapters in this section do not contain breakouts of the data for all of the groups. Note that the race/ethnicity categories are not mutually exclusive, as respondents were allowed to select multiple racial categories. This section provides group comparisons for the following topics:

- Past-year and past-month drinking and driving behavior
- Past-month drinking-driving trips
- Riding with unsafe drivers
- Perceptions of drinking and driving as a threat to personal safety
- Number of drinks before unsafe to drive
- Avoidance of driving after drinking too much
- Use of designated drivers
- Personal responsibility to intervene
- Perceptions of likely drinking and driving outcomes and current laws and penalties
- Perceptions and exposure to sobriety checkpoints
- Awareness and knowledge about BAC levels and the legal limit
- Involvement in a motor vehicle crash, past 2 years

Drove Within Two Hours of Consuming Alcohol, by Race/Ethnicity

While 20% of the general driving-age public reported having driven within 2 hours of consuming alcohol in the past year, this behavior varied considerably by racial and ethnic group. Non-Hispanic Blacks (10%) and Hispanics (13%) were less likely to have reported driving within 2 hours of drinking in the past year compared to Non-Hispanic Whites (23%). The percentages were higher for males than females across all racial and ethnic groups. [Figure 30-A]

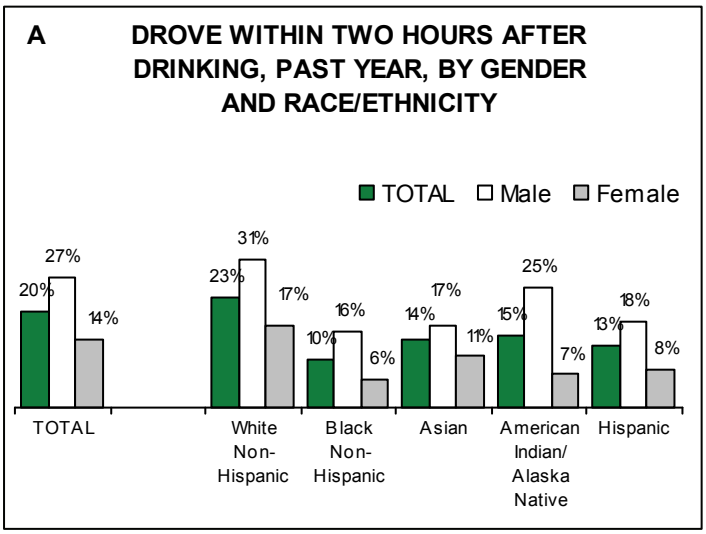
While one goal of this study was to obtain past-year estimates of drinking and driving behaviors, the accuracy of specific recall of drinking-driving trips over shorter periods is generally more reliable, particularly for behaviors that occur frequently. Thus, past-year drinking-drivers were also asked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

About 13% of the general driving-age public reported having driven within 2 hours of drinking alcohol within the past 30 days. As with past-year drinking and driving, the percentage was highest for Non-Hispanic Whites, and higher for males than females across all racial and ethnic groups. [Figure 30-B]

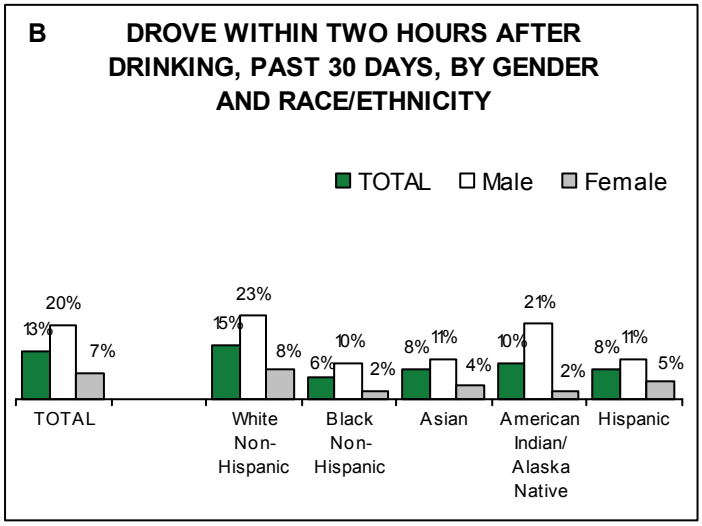
Frequency of Past-Month Drinking-Driving Trips

Overall, past-year drinking-drivers made an average of 1.8 drinking and driving trips in the month prior to the survey. The number was 1.8 for Non-Hispanic Whites and Hispanics and 1.1 for Non-Hispanic Black drinking-drivers. [Figure 30-C]

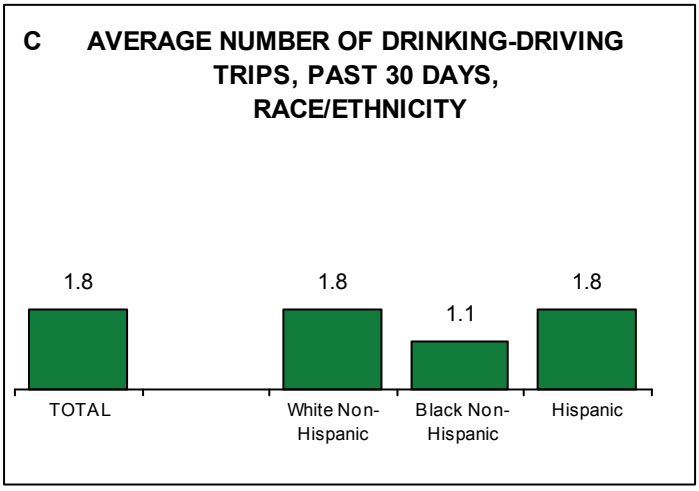
FIGURE 30: PAST-YEAR AND PAST-MONTH DRINKING AND DRIVING BEHAVIOR[15]



Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?
*[Base: total n=6999**]*



Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: total n=6999**]*



Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers n=1466**]*

**Sample bases:

	Total	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hawaiian/ Pacific Islander	Hispanic
Total	6999	5440	625	186	212	44	626
Drinking-drivers	1466	1272	66	29	25	5	84

[15] Non-Hispanic White respondents answered "White" to any of the five race responses and did not answer "Yes" to the Hispanic or Latino origin survey question (D5). Similarly, Non-Hispanic Black respondents were those who answered "Black or African-American" to any of the five race responses, and did not answer "Yes" to D5. Asians, American Indians/Alaska Natives, and Hawaiians/Pacific Islanders all identified with their respective racial group on one of the five race responses (regardless of their answer to D5). Hispanics answered "Yes" to the Hispanic or Latino origin survey question (D5).

Past-Month Drinking and Driving Trips

Percent of Past-Month Drinking-Driving Trips by Race/Ethnicity

Non-Hispanic White drinking-drivers accounted for the vast majority (85%) of all past-month drinking-driving trips. [Figure 31-A] This percentage was disproportionately high, as this group accounted for 72% of the total driving-age population. In contrast, Non-Hispanic Blacks and Hispanics composed smaller shares of total past-month drinking-driving trips compared to their percentages of the total population. [Figure 31-B]

Drinking-Driving Trips

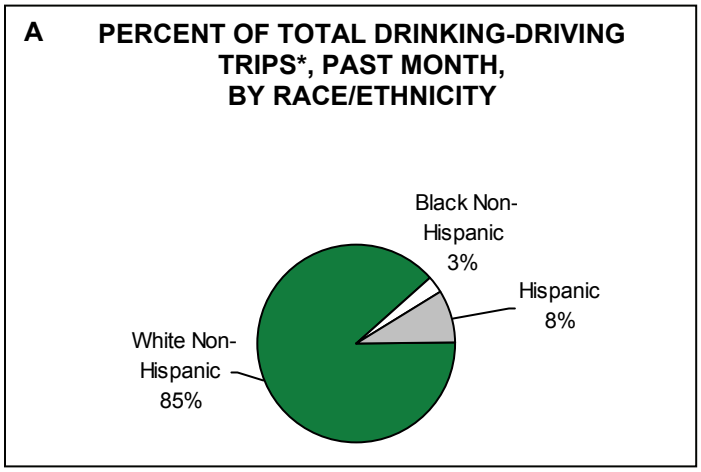
This analysis provides an approximation of the number of drinking-driving trips by race/ethnicity. It shows the estimated number of trips and the likely high and low number based on the error range of the estimate.

Overall, drinking-drivers made an estimated 85.5 million drinking-driving trips in the past 30 days, with the actual number expected to be somewhere between 74.3 million and 96.6 million at the 95% confidence interval. Non-Hispanic Whites made about 72.6 million (or 85%) of these drinking-driving trips, Non-Hispanic Blacks accounted for about 2.6 million trips (3%), and Hispanics accounted for 6.5 million trips (8%). [Figures 31-C]

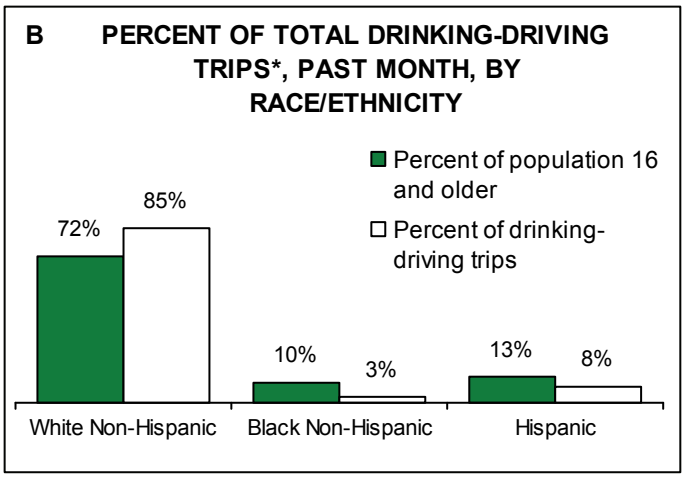
It is important to note that the total trip data presented here may not reflect the true number of drinking and driving trips made each month for a number of reasons: people may not be able to accurately recall the number of such trips, the previous month may not be indicative of the respondent's total year drinking-driving trips, and people may underreport such behavior if they feel that it is socially desirable to do so. Data are also aggregated across a 3-month field period, meaning that segments of the sample are referencing different times of the year when specifying their past-month behavior, with whatever seasonal fluctuation in behaviors that may entail.

Note: these figures do not sum to the population total due to missing responses on the race/ethnicity questions and the exclusion of individuals from 'other' racial groups.

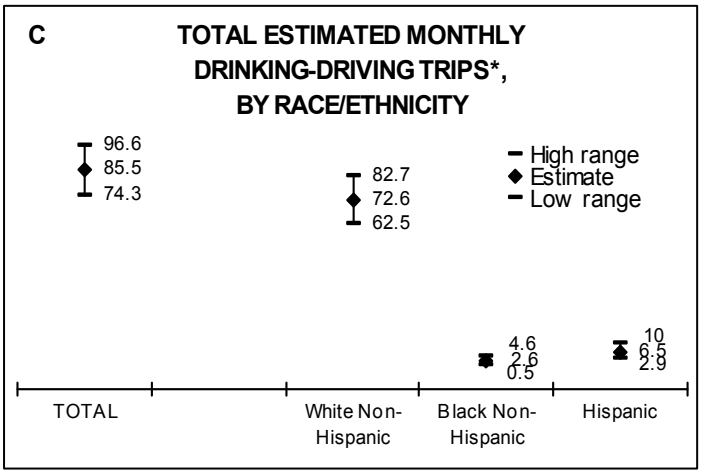
FIGURE 31: PAST-MONTH DRINKING AND DRIVING TRIPS



Q35: In the past 30 days, how many times have you driven within two hours after drinking any alcohol?
*[Base: drinking-drivers n=1466**]*



Q35: In the past 30 days, how many times have you driven within two hours after drinking any alcohol?
*[Base: drinking-drivers n=1466**]*



Q35: In the past 30 days, how many times have you driven within two hours after drinking any alcohol?
*[Base: drinking-drivers n=1466**]*

*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:

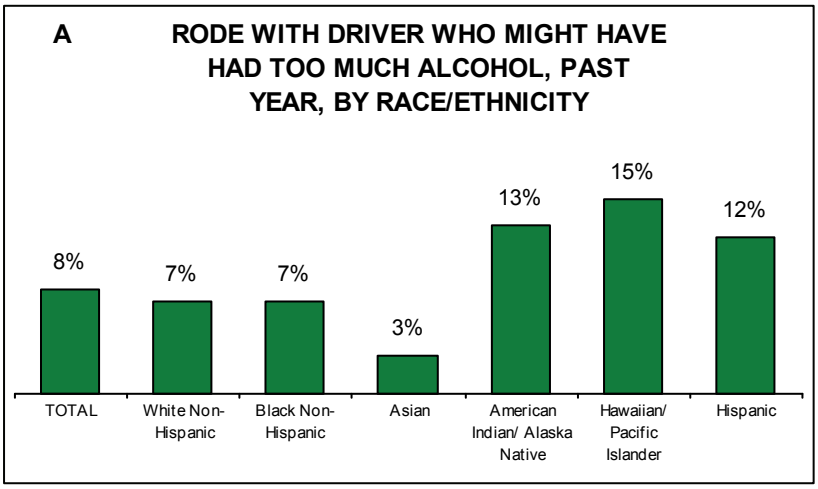
	Total	White Non-Hispanic	Black Non-Hispanic	Hispanic
Drinking-drivers	1466	1272	65	84

Note: Total drinking-driving trips were estimated by summing the number of trips across all respondents and projecting to the total U.S. population age 16 or older.

Riding With Unsafe Drivers

About 8% of individuals rode in the past year with a driver they thought may have consumed too much alcohol to drive safely. Twelve percent of Hispanics reported experiencing this situation compared to 7% of Non-Hispanic Blacks and Whites. [Figure 32-A]

FIGURE 32: RIDING WITH UNSAFE DRIVERS



Q57: 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: total n=6999**]*

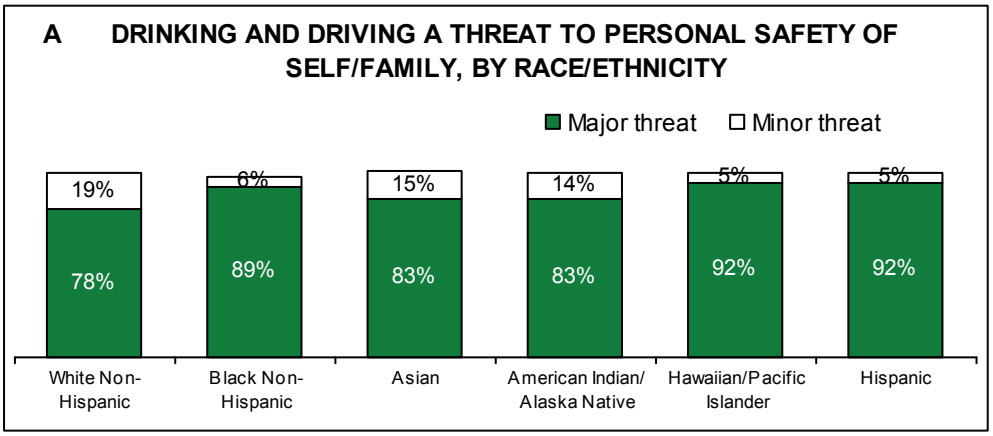
**Sample bases for this page:

	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hawaiian/ Pacific Islander	Hispanic
Total	5440	625	186	212	44	626

Perceptions of Drinking and Driving as a Threat to Personal Safety

The vast majority within all racial and ethnic groups considered drinking and driving by others to be a major threat to safety. [Figure 33-A]

FIGURE 33: PERCEPTIONS OF DRINKING AND DRIVING AS A THREAT TO PERSONAL SAFETY



Q103: In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family?
*[Base: total n=6999**]*

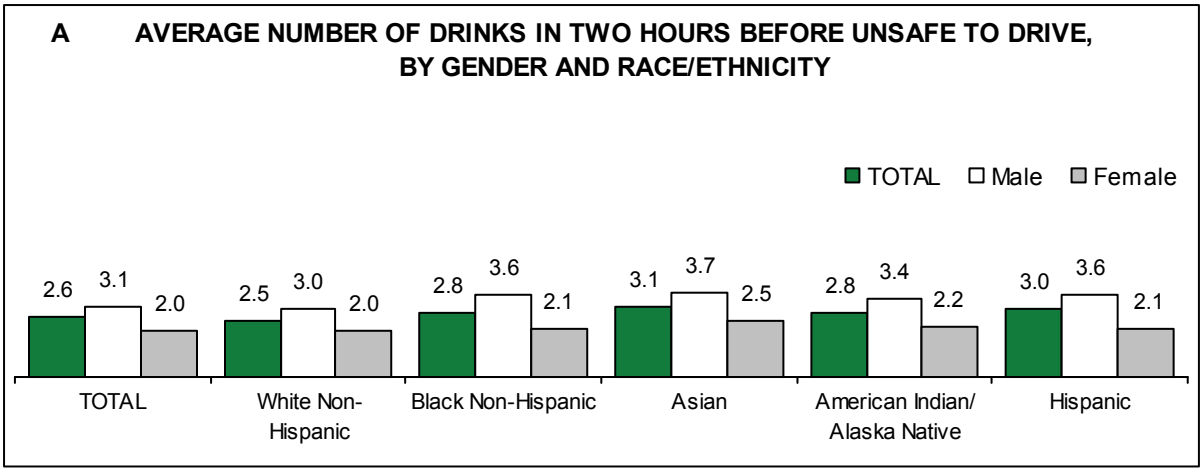
**Sample bases for this page:

	Total	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hawaiian/ Pacific Islander	Hispanic
Total	6999	5440	625	186	212	44	626

Number of Drinks Before Unsafe to Drive

On average, drivers who drink believed they could consume about 2.6 alcoholic beverages within 2 hours before it would be unsafe for them to drive. This figure did not vary greatly across racial and ethnic groups. As with the total population, all racial/ethnic groups had a higher perceived safety threshold reported by males than females. [Figure 34-A]

FIGURE 34: NUMBER OF DRINKS BEFORE UNSAFE TO DRIVE



Q31: In your opinion, how many [drinks of alcoholic beverage drunk most often] could you drink in two hours before it would be unsafe for you to drive?
*[Base: drivers who drink n=4023**]*

**Sample bases for this page:

	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hawaiian/ Pacific Islander	Hispanic
Drivers who drink alcohol:						
Total	4023	3334	259	90	112	288
Male	1958	1581	99	54	50	186
Female	2065	1753	160	36	62	102

Avoided Driving After Drinking Too Much

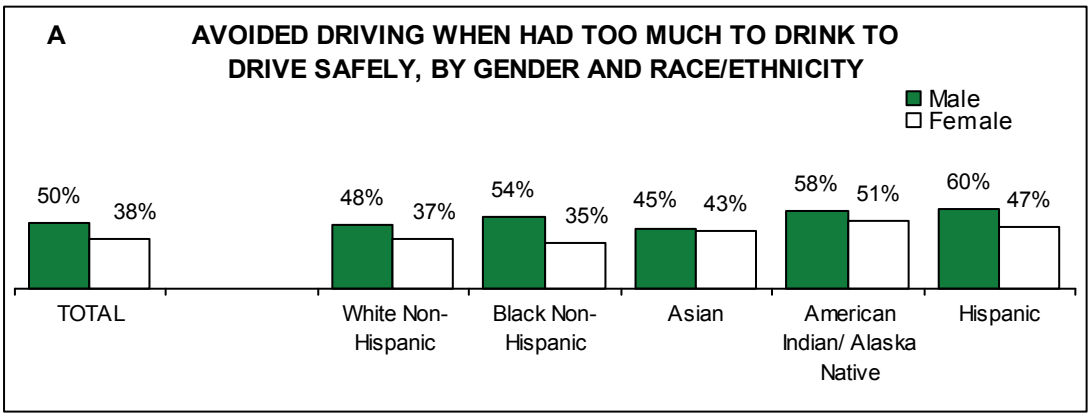
Avoided Driving When Had Too Much to Drink to Drive Safely

Slightly more than 4 in 10 (44%) drivers who drink have avoided driving a motor vehicle at least once in the past year because they felt they had too much to drink to drive safely, with males being more likely to have done so than females (50% to 38% respectively). Across racial and ethnic groups, the percentages of those who had avoided driving ranged from 45% of Asian males to 60% of Hispanic males, and from 35% of Black Non-Hispanic females to 51% of American Indian/Alaska Native females. [Figure 35-A]

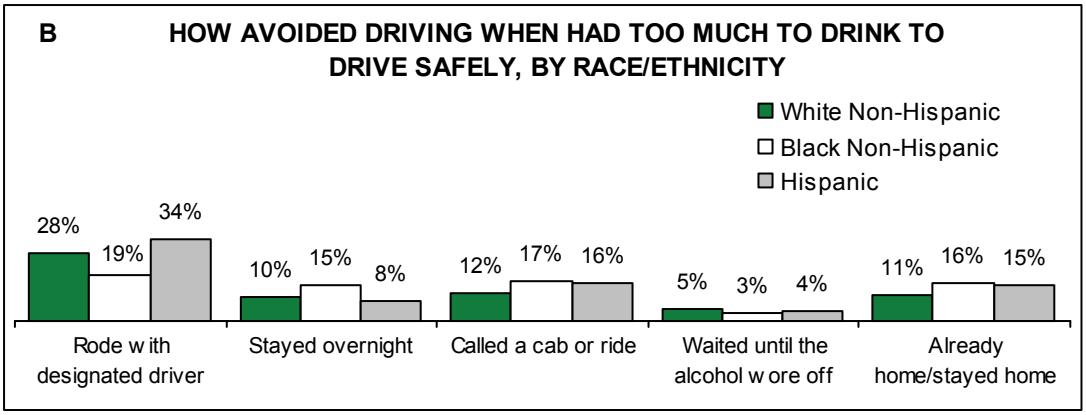
Actions to Avoid Driving After Drinking Too Much

Among those respondents who avoided driving a motor vehicle because they felt that they had too much to drink and drive safely, 28% of Non-Hispanic Whites, 19% of Non-Hispanic Blacks, and 34% of Hispanics reported riding with a designated driver as the method they used. Other ways of avoiding driving included staying overnight (15% of Non-Hispanic Blacks, 10% of Non-Hispanic Whites, and 8% of Hispanics), and calling a cab or ride (17% of Non-Hispanic Blacks, 16% of Hispanics and 12% of Non-Hispanic Whites). [Figure 35-B]

FIGURE 35: AVOIDED DRIVING AFTER DRINKING TOO MUCH



Q54: 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 also drink alcohol n=4023**]*



Q56: On the most recent time that you deliberately avoided driving after drinking, how did you do it? That is, what did you do instead?
*[Base: avoided driving after drinking, past year n=1626**]*

**Sample bases for this page:

Drivers who also drink alcohol:	Total	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hispanic
Male	1958	1581	99	54	50	186
Female	2065	1753	160	36	62	102
Avoided driving after drinking	1626	1332	95	41	54	141

Use of Designated Drivers

Riding With Designated Drivers

One in three (33%) persons of driving age rode with a designated driver at least once in the past year, with males slightly more likely than females to have done so (35% versus 31%, respectively). Among American Indians/Alaska Natives, 50% of males and 41% of females had ridden with a designated driver. [Figure 36-A]

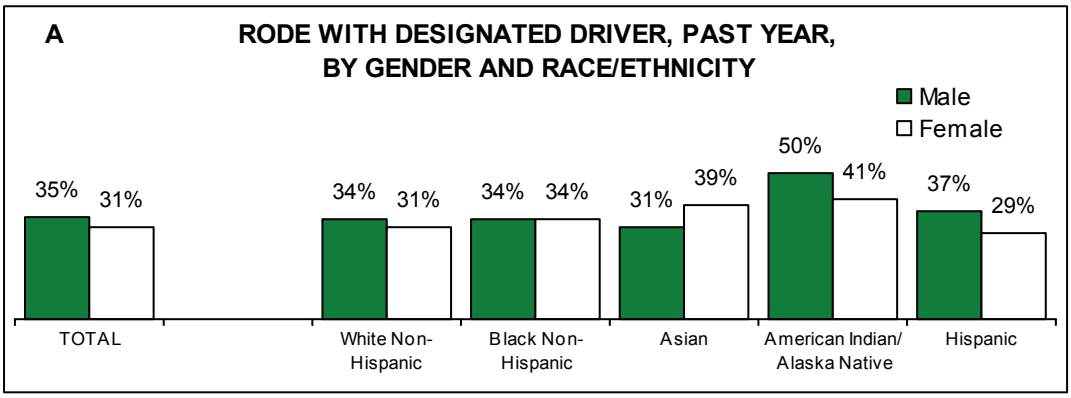
Being a Designated Driver

More than 4 in 10 drivers (44%) said they personally had been a designated driver for others in the past year, with 45% of females and 42% of males reporting doing so. Fifty-five percent of both Non-Hispanic Black male and American Indian/Alaska Native male drivers reported acting in this capacity, while 60% of American Indian/Alaska Native female drivers reported being a designated driver in the past year. [Figure 36-B]

Alcoholic Drinks by Designated Drivers

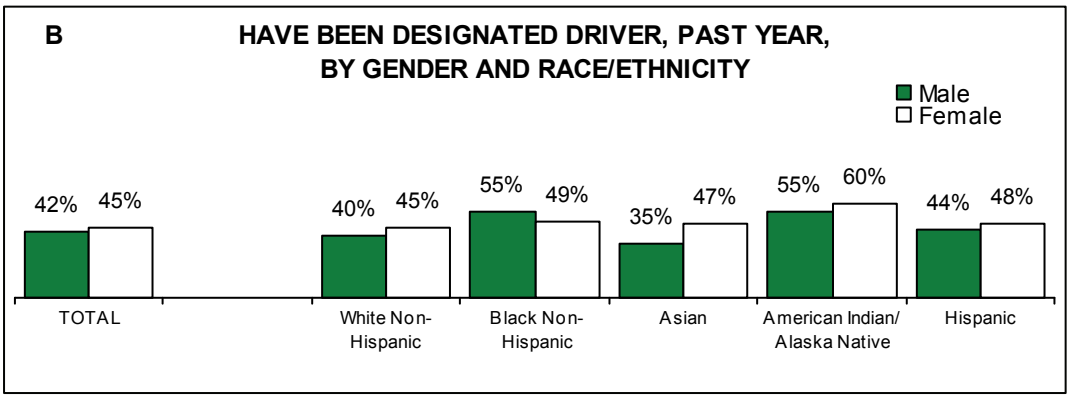
Across all racial/ethnic groups, more than one-fourth of drivers believed that a driver can have one or more drinks if he or she is a designated driver. [Figure 36-C]

FIGURE 36: USE OF DESIGNATED DRIVERS

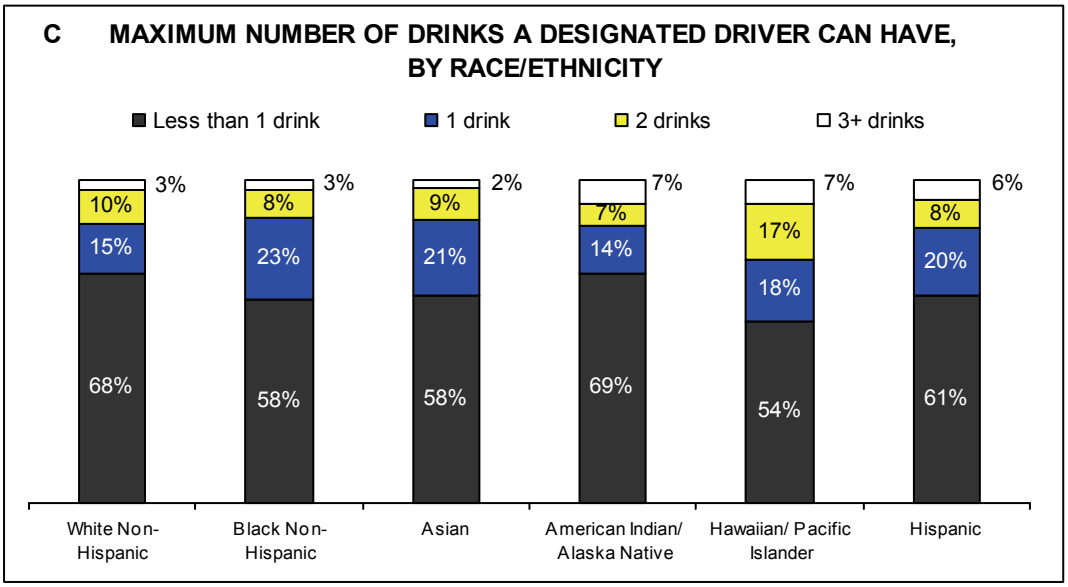


Q61: In the past year, have you ridden anywhere with someone else who had agreed to be the designated driver?
*[Base: total n=6999**]*

FIGURE 36: USE OF DESIGNATED DRIVERS (CONTINUED)



Q64b: Have you been a designated driver for other passengers in the past year?
*[Base: drivers n=6432**]*



Q66: What is the maximum number of alcoholic drinks a person can have if he or she is the designated driver?
*[Base: total n=6999**]*

**Sample bases for this page:

	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hispanic
Total	5440	625	186	212	626
Male	2383	250	101	89	335
Female	3057	375	85	123	291
Drivers	5113	527	164	183	527
Designated driver	2077	223	73	97	250
Rode with designated driver	1684	191	66	77	222

Ever Been With a Friend, Family Member, or Acquaintance Who Had Too Much Alcohol to Drive Safely but Was Planning to Drive

Slightly more than 4 in 10 (43%) persons of driving age had ever been in a situation with a friend, family member, or acquaintance who had too much to drink to drive safely but was planning to drive. The percentage ranged from 20% of Asians to 49% of Non-Hispanic Whites among males, and from 29% of Non-Hispanic Blacks to 46% of American Indians/Alaska Natives among females. [Figure 37-A]

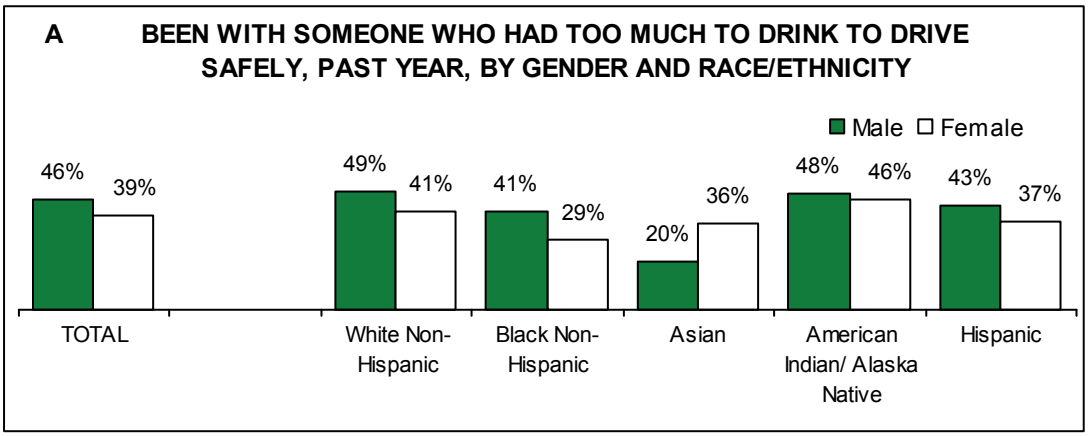
Attempted Intervention

Slightly less than 9 in 10 (88%) people who found themselves in this type of situation said they tried to stop the impaired driver from driving the most recent time this occurred. The percentage ranged from 87% of Non-Hispanic Blacks to 98% of Asians. [Figure 37-B]

Success of Intervention

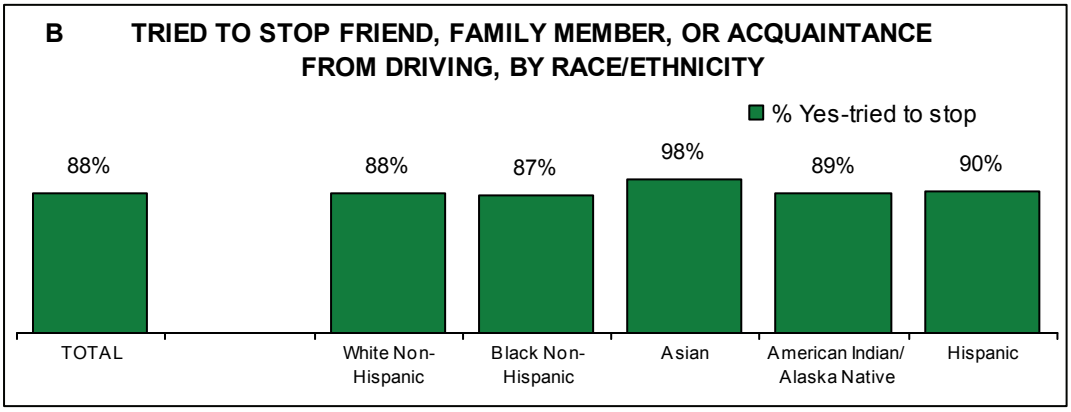
Eighty-five percent of those who attempted intervention reported that they were successful in preventing the impaired person from driving, while 14% said the person drove anyway. The percentage ranged from 8% of Non-Hispanic Blacks to 26% of Asians. [Figure 37-C]

FIGURE 37: PERSONAL RESPONSIBILITY TO INTERVENE

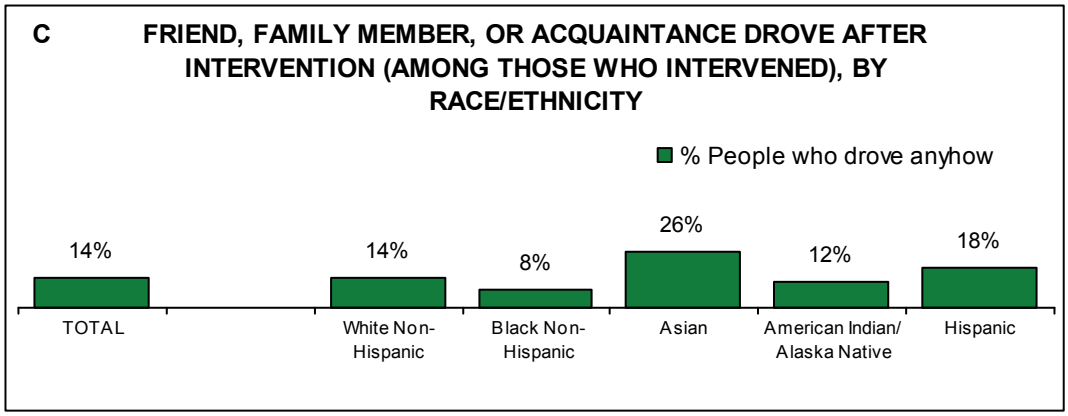


Q96a: Now I would like to ask you about situations when you were with a friend, family member, or acquaintance who had too much to drink to drive safely, yet was planning on driving. Have you ever been in this type of situation?
*[Base: total n=6999**]*

FIGURE 37: PERSONAL RESPONSIBILITY TO INTERVENE (CONTINUED)



Q100: Think of the most recent time you were in this situation. Did you do something to try to stop them from driving?
*[Base: with friend needing intervention n=2962**]*



Q102: Did they drive anyhow?
*[Base: tried to intervene n=2576**]*

**Sample bases for this page:

	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hawaiian/ Pacific Islander	Hispanic
Total	5440	625	186	212	44	626
Male	2383	250	101	89	20	335
Female	3057	375	85	123	24	291
With a friend needing intervention	2433	199	50	107	15	250
Tried to intervene	2102	179	48	97	14	222

Perceptions of Likely Drinking and Driving Outcomes and Current Laws and Penalties

Likelihood of Being Stopped or Arrested for Drinking and Driving

Non-Hispanic Whites were least likely to believe that drivers who have had too much to drink to drive safely would be almost certain or very likely to be stopped by police as compared to other racial and ethnic groups. [Figure 38-A]

Non-Hispanic Whites were also least likely to believe that an arrest was very likely or almost certain (37%). [Figure 38-B]

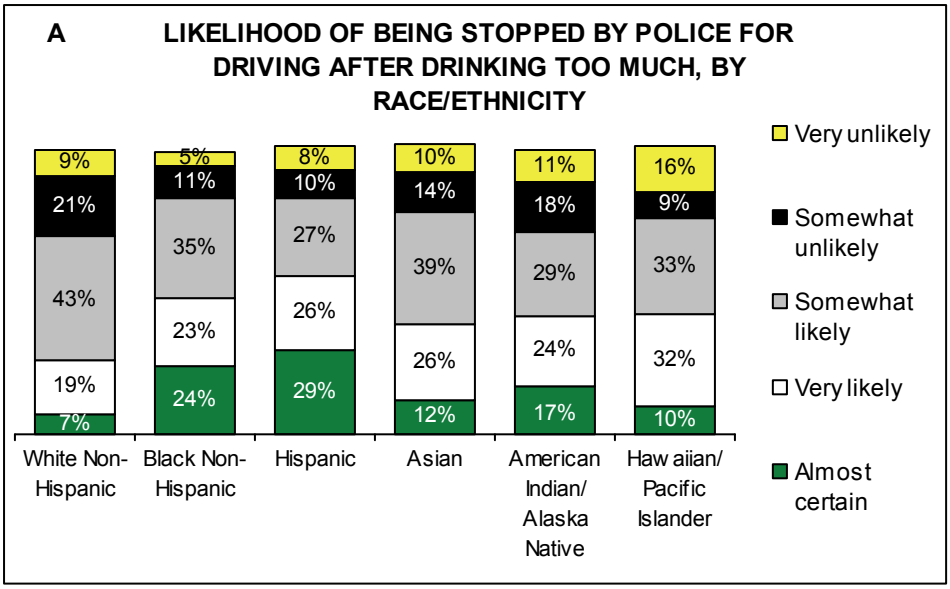
Likelihood of Being Stopped by Police Versus Crash

Regardless of racial/ethnic background, proportionally more persons were almost certain that drivers who had too much to drink to drive safely would get into a crash than were almost certain that they would be stopped by the police. [Figure 38-C]

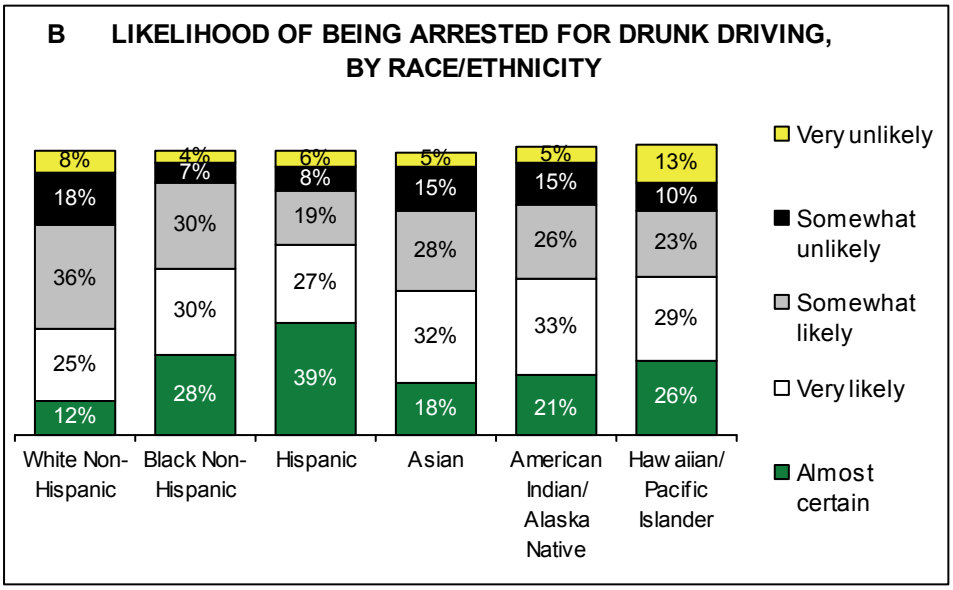
Perceptions of Current Laws and Penalties

There was some difference across racial and ethnic groups in the percentage that believed the penalties for violating drinking-driving laws should be much more severe. The percentage ranged from 33% of Asians to 52% of Hawaiian/Pacific Islanders. [Figure 38-D]

FIGURE 38: PERCEPTIONS OF LIKELY DRINKING-DRIVING OUTCOMES AND CURRENT LAWS AND PENALTIES

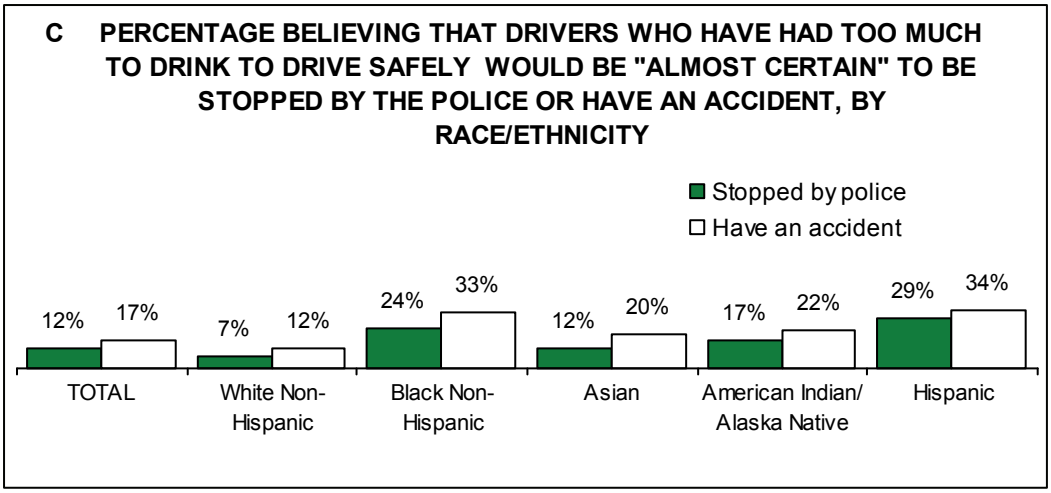


Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
A. Get stopped by the police?
*[Base: total n=6999**]*

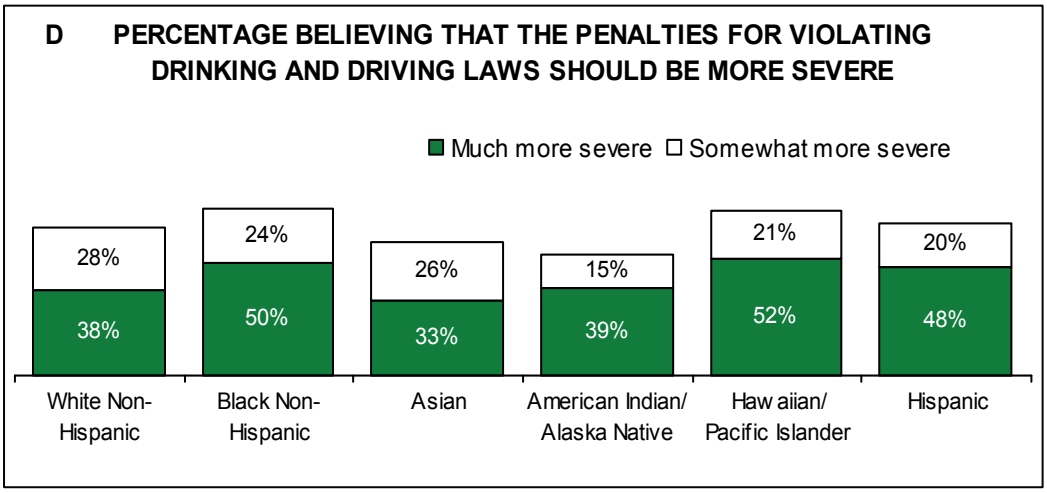


Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
D. Be arrested for drunk driving?
*[Base: total n=6999**]*

FIGURE 38: PERCEPTIONS OF LIKELY DRINKING-DRIVING OUTCOMES AND CURRENT LAWS AND PENALTIES (CONTINUED)



Q105b: How likely is it that drivers who have had too much to drink to drive safely will…
A. Get stopped by the police?
B Have an accident?
*[Base: total n=6999**}*



Q116: In your opinion, should the penalties for violating drinking and driving laws be…?
*[Base: total n=6999**]*

**Sample bases for this page:

	Total	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hispanic
Total	6999	5440	625	186	212	626

Perceptions and Exposure to Sobriety Checkpoints

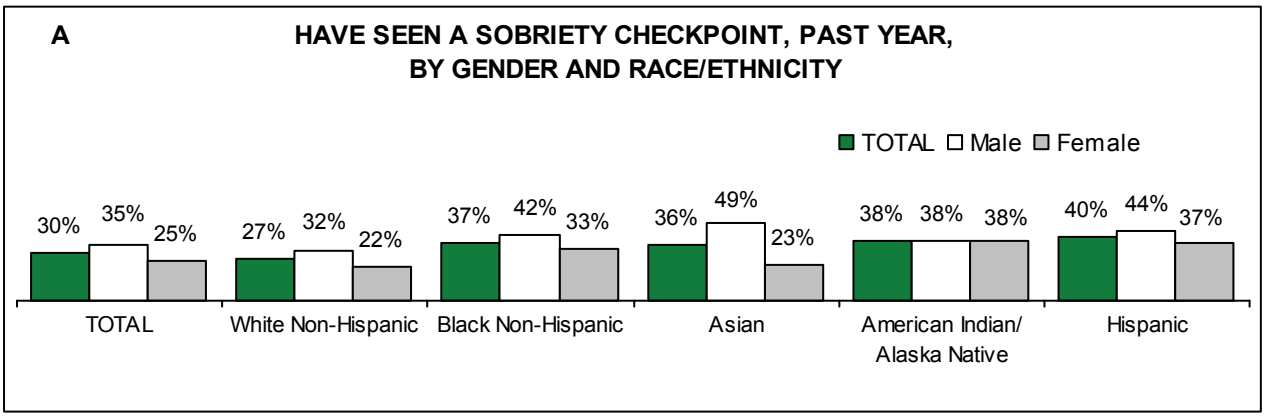
Have Seen Checkpoint Past Year

About one-fourth of Non-Hispanic Whites saw a sobriety checkpoint in the past year compared to more than one-third of other racial/ethnic groups. [Figure 39-A]

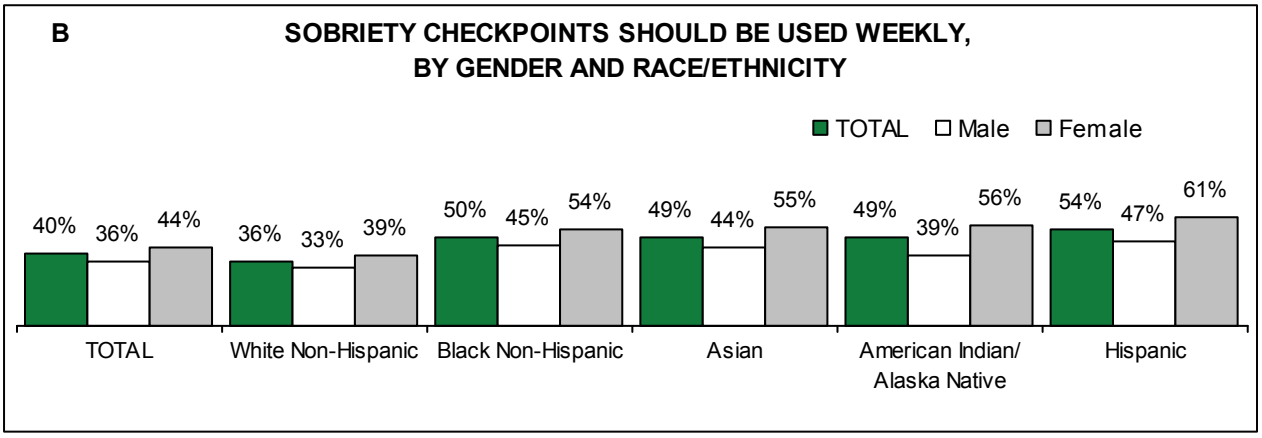
Preferred Frequency of Checkpoint Operations

About one-third of Non-Hispanic Whites preferred weekly set up of sobriety checkpoints compared to about one-half or more of other racial/ethnic groups. Females across all racial/ethnic groups were more likely than their male counterparts to support conducting weekly sobriety checkpoints. [Figure 39-B]

FIGURE 39: EXPERIENCE AND PERCEPTIONS OF SOBRIETY CHECKPOINTS



Q120: 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: total n=6999**]*



Q122C: About how often do you think sobriety checkpoint should be conducted (% Weekly)?
*[Base: total n=6999**]*

**Sample bases for this page:

	Total	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hispanic
Total	6999	5440	625	186	212	626
Male	3132	2383	250	101	89	335
Female	3867	3057	375	85	123	291

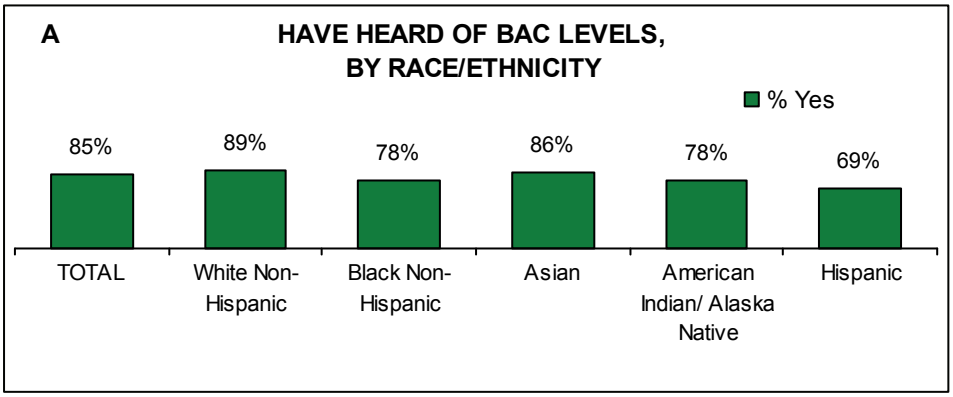
Heard of BAC Levels

The percentage of persons of driving age who had heard of blood alcohol concentration (BAC) ranged from 69% among Hispanics to 89% among Non-Hispanic Whites. [Figure 40-A]

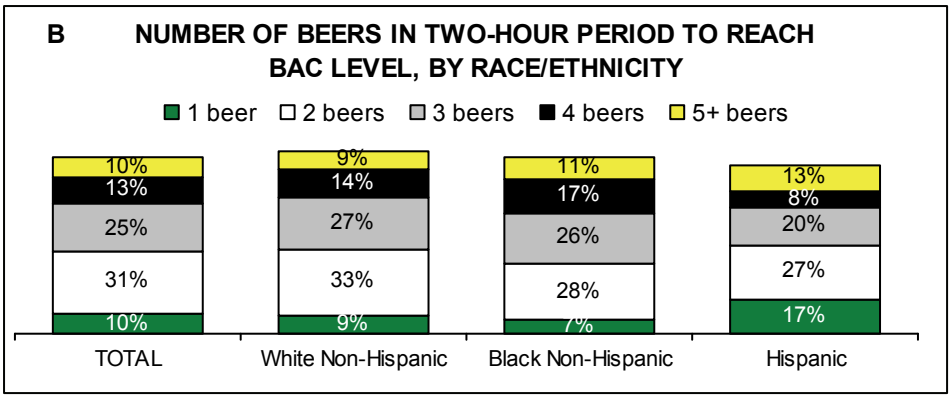
Number of Beers to Reach BAC Limit

Most people, regardless of racial and ethnic group, thought they would be able to consume no more than three beers before reaching the legal BAC limit of .08. [Figure 40-B]

FIGURE 40: AWARENESS AND KNOWLEDGE ABOUT BAC LEVELS AND THE LEGAL LIMIT



Q123: 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 ever heard of blood alcohol concentration or BAC levels before today?
*[Base: total n=6999**]*



Q126: The legal limit in your state is .08. In your opinion, how many 12 ounce beers would a male/female about your height and weight have to drink in a two-hour period to just reach the legal limit of .08?
*[Base: total n=6999**]*

**Sample bases for this page:

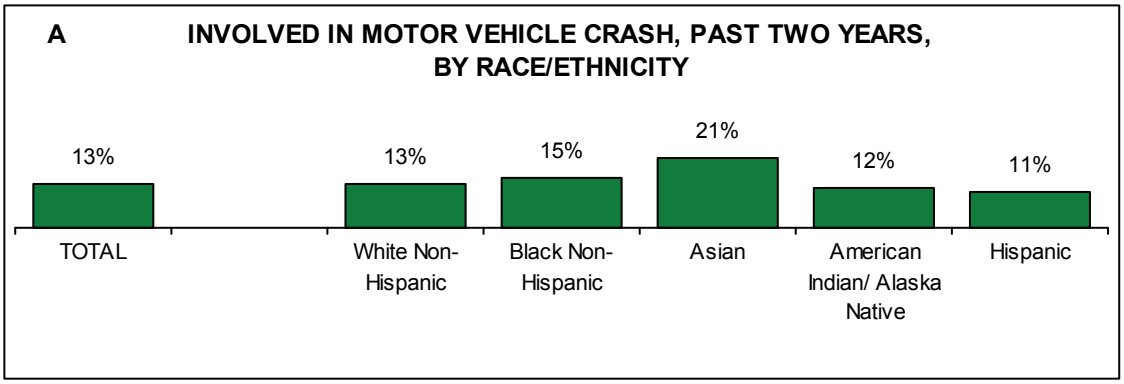
	Total	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hispanic
Total	6999	5440	625	186	212	626

Involvement in a Motor Vehicle Crash, Past Two Years

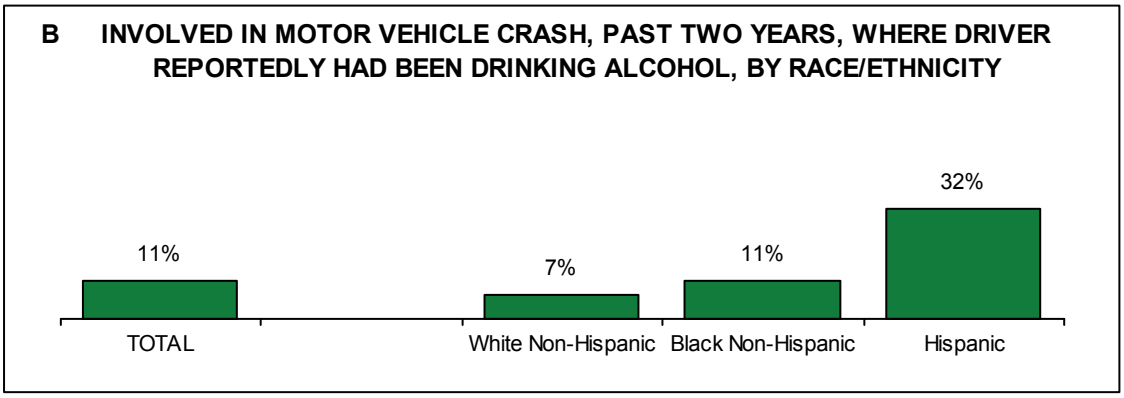
Involved in Crash While Driving

Across racial and ethnic groups, more than 1 in 10 persons had been in a motor vehicle crash in the past 2 years in which there had been vehicle damage. [Figure 41-A] Relatively few of these individuals reported that it was an alcohol-involved crash, with the exception of crashes reported by Hispanics (32%). [Figure 41-B]

FIGURE 41: INVOLVEMENT IN MOTOR VEHICLE CRASH, PAST TWO YEARS



Q131a: In the past two years, have you been involved in a motor vehicle crash in which there was damage to your vehicle or another vehicle?
*[Base: total n=6999**]*



Q132a: In the most recent occurrence, was there a driver involved who had been drinking alcohol?
*[Base: involved in a crash as a passenger or driver, past two years n=940**]*

**Sample bases for this page:

	Total	White Non-Hispanic	Black Non-Hispanic	Asian	American Indian/ Alaska Native	Hispanic
Total	6999	5440	625	186	212	626
Involved in crash	940	730	96	37	30	68

Section III: Findings From the Multivariate Analyses

Chapter 10: Multivariate Findings

In order to facilitate a deeper understanding of the factors associated with drinking and driving attitudes and behaviors, this section presents a series of multivariate analyses designed to highlight the factors that provide the strongest influence on these attitudes and behaviors. To accomplish this, the chapter presents a series of results generated by a backward stepwise logistic regression procedure. Those predictor variables that appear in subsequent tables are those that were statistically significant at the .05 level at the conclusion of the stepwise procedure.

This chapter presents a profile of the following groups of individuals:

- Those who drink and drive
- Problem drinkers who drink and drive
- Those who are not aware of the Minimum Drinking Age (MDA)
- Those who stated that they were aware of the MDA, but did not identify it correctly as 21
- Those who intervene to prevent a friend, family member, or acquaintance from driving after drinking
- Those who intervene effectively to prevent friend, family member or acquaintance from driving after drinking

Those Who Drink and Drive Versus Those Who Do Not, Past 12 Months

This multivariate model was designed to uncover the characteristics of persons who drink and drive as compared to those who do not. When analyzed in combination with other indicators, several demographic variables were found to significantly predict drinking and driving, including age, gender, income, educational attainment, and employment status. More specifically, among the six tested age categories, young adults between the ages of 16 and 20 were less likely to be drinking-drivers compared to older drivers. Females were less likely to be drinking-drivers than males. Drinking and driving was also associated with higher income levels, higher educational attainment, and employment. For example, adults who were unemployed or of "other" employment status (e.g., student, homemaker) were *less likely* than their full-time employed counterparts to be drinking-drivers. Those who began drinking alcohol earlier in life were also more likely to become drinking-drivers.

Several indicators were found to significantly increase the likelihood that an individual would be a drinking-driver. These include 1) being a host of a party where alcohol was served, 2) consuming a greater frequency of alcohol over the past month, 3) being in a situation in the past year where they were encouraged to drink more than they wanted, and 4) feeling that they had to drink because everyone else was drinking.

In contrast, several indicators were found to significantly decrease the likelihood of being a drinking-driver. These include those who 1) perceive drinking and driving as a "major threat," 2) believe that penalties for drinking and driving should be more severe, and/or 3) believe that checkpoints should be used more frequently. Additionally, drivers who reported being in an accident that caused vehicle damage in the past 2 years were less likely to be drinking-drivers than drivers who were not involved in such an accident.

TABLE 5: THOSE WHO DRINK AND DRIVE, PAST 12 MONTHS

	Beta				Odds Ratio		
Variable	**Estimate**	**Lower CI**	**Upper CI**	**P Value**	**Estimate**	**Lower CI**	**Upper CI**
Sociodemographic Measures							
Age							
16-20	-0.84	-1.39	-0.30	0.002	0.43	0.25	0.74
21-24	-0.25	-0.68	0.17	0.2390	0.78	0.51	1.18
25-34	-0.15	-0.55	0.25	0.4520	0.86	0.57	1.28
35-44	-0.07	-0.48	0.35	0.7522	0.94	0.62	1.42
45-64	-0.17	-0.52	0.18	0.3391	0.84	0.60	1.20
65+	(reference)	---	---	---	---	---	---
Gender							
Male	(reference)	---	---	---	---	---	---
Female	-0.29	-0.52	-0.05	0.0161	0.75	0.59	0.95
Income (1-7)[16]	0.09	0.01	0.17	0.0203	1.09	1.01	1.18
Employment Status							
Full Time	(reference)	---	---	---	---	---	---
Part Time	-0.07	-0.49	0.34	0.7276	0.93	0.61	1.40
Unemployed	-0.79	-1.42	-0.17	0.0125	0.45	0.24	0.84
Other	-0.66	-0.94	-0.38	0.0000	0.52	0.39	0.68
Education							
High School or Less	(reference)	---	---	---	---	---	---
Some College	0.32	-0.03	0.66	0.0713	1.37	0.97	1.93
4+ Years of College	0.39	0.04	0.73	0.0269	1.48	1.05	2.08
Drinking and Driving-Related Behaviors							
Age at First Drink	-0.06	-0.09	-0.03	0.0007	0.94	0.91	0.98
Hosted a Party for Adults	0.27	0.04	0.51	0.0235	1.31	1.04	1.67
Number of Days Drinking, Past 30	0.06	0.04	0.07	0.0000	1.06	1.04	1.07
Drinking and Driving-Related Situations							
Encouraged to Drink More Than Wanted	0.42	0.14	0.69	0.0029	1.51	1.15	1.99
Had to Drink Because Everyone Else Was	0.63	0.22	1.03	0.0027	1.87	1.24	2.81
Involved in an Accident, Past 2 Years	-0.68	-1.07	-0.28	0.0007	0.51	0.34	0.76
Drinking and Driving-Related Attitudes							
Drinking and Driving as a Major Threat	-0.49	-0.73	-0.25	0.0001	0.61	0.48	0.78
How Often Checkpoints Should Be Used	0.14	0.05	0.23	0.0021	1.15	1.05	1.26
Drinking and Driving Penalties Should Be More Severe	-0.52	-0.79	-0.26	0.0001	0.59	0.45	0.77

[16] There were seven response categories provided for income in the 2008 survey: 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"; and 7 = "$100,000 or more."

Problem Drinkers Who Drink and Drive Versus Problem Drinkers Who Do Not, Past 12 Months

This multivariate model was designed to determine the characteristics of problem drinkers who drink and drive versus those who do not. The likelihood of problem drinkers' drinking and driving was greater among persons with higher levels of education, with a greater number of days drinking in the past month, and those who have been in a situation where they felt that they were encouraged to drink more than they wanted. In contrast, problem drinkers who viewed drinking and driving as a "major threat" to their personal safety and the safety of their families were less likely to be a drinking-driver compared to problem drinkers who did not hold this view.

TABLE 6: PROBLEM DRINKERS WHO DRINK AND DRIVE, PAST 12 MONTHS

	Beta				Odds Ratio		
Variable	**Estimate**	**Lower CI**	**Upper CI**	**P value**	**Estimate**	**Lower CI**	**Upper CI**
Sociodemographic Measures							
Education							
High School or Less	(reference)	---	---	---	---	---	---
Some College	1.00	0.46	1.55	0.0003	2.73	1.58	4.73
4+ Years of College	1.49	0.84	2.14	0.0000	4.42	2.31	8.49
Drinking and Driving-Related Behaviors							
Number of Days Drinking, Past 30	0.04	0.01	0.07	0.0034	1.04	1.01	1.07
Drinking and Driving-Related Situations							
Encouraged to Drink More Than Wanted	0.54	0.04	1.05	0.0362	1.72	1.04	2.87
Drinking and Driving-Related Attitudes							
Drinking and Driving as a Major Threat	-1.11	-1.69	-0.54	0.0002	0.33	0.18	0.58

Those Who Are Not Aware of the Minimum Drinking Age (MDA) Versus Those Who Are

This multivariate model was designed to determine the characteristics of those individuals who were *unaware* of the existence of a Minimum Drinking Age (MDA). Those who were unaware of the existence of the MDA tended to be individuals who were 1) 65 or older, 2) Non-Hispanic White, 4) college educated, and/or 5) drank on a greater number of days in the past month compared to others. Unaware individuals were less likely to be those who 1) rode with someone who may have drank too much to drive safely, 2) rode with a designated driver in the past year, 3) believe that drinking and driving is a "major threat" to safety.

TABLE 7: THOSE WHO ARE NOT AWARE OF THE MDA

	Beta				Odds Ratio		
Variable	**Estimate**	**Lower CI**	**Upper CI**	**P Value**	**Estimate**	**Lower CI**	**Upper CI**
Sociodemographic Measures							
Age							
16-20	-0.93	-1.49	-0.37	0.0011	0.39	0.23	0.69
21-24	-1.76	-2.30	-1.22	0.0000	0.17	0.10	0.30
25-34	-1.41	-1.79	-1.02	0.0000	0.24	0.17	0.36
35-44	-0.80	-1.14	-0.47	0.0000	0.45	0.32	0.63
45-64	-0.37	-0.66	-0.08	0.0112	0.69	0.52	0.92
65+	(reference)	---	---	---	---	---	---
Race							
Non-Hispanic White	(reference)	---	---	---	---	---	---
Non-Hispanic Black	-1.00	-1.49	-0.50	0.0001	0.37	0.22	0.61
Hispanic	-0.74	-1.17	-0.30	0.0009	0.48	0.31	0.74
Other	-0.19	-0.68	0.31	0.4544	0.83	0.50	1.36
Education							
High School or Less	(reference)	---	---	---	---	---	---
Some College	0.23	-0.07	0.53	0.1315	1.26	0.93	1.71
4+ Years of College	0.58	0.30	0.85	0.0000	1.78	1.35	2.33
Drinking and Driving-Related Behaviors							
Number of Days Drinking, Past 30 Days	0.02	0.00	0.03	0.0083	1.02	1.00	1.03
Drinking and Driving-Related Situations							
Rode With Someone Who Had Too Much to Drink, Past Year	-0.53	-0.88	-0.19	0.0025	0.59	0.42	0.83
Rode With DD, Past Year	-0.29	-0.52	-0.07	0.0116	0.74	0.59	0.94
Drinking and Driving-Related Attitudes							
Drinking and Driving as a Major Threat	-0.35	-0.59	-0.11	0.0044	0.70	0.55	0.90

Those Who Report an Incorrect MDA Versus Those Who Do Not

A follow-up model was designed to determine, of those who stated they were aware of the existence of the MDA, whether they could identify it correctly as age 21. Those who stated the incorrect MDA tended to be 1) older than age 65, 2) Non-Hispanic Black or Hispanic, 4) persons of "other" employment status and/or 5) individuals who felt that those who drink and drive are "very likely" to be stopped by police.

TABLE 8: THOSE WHO REPORT AN INCORRECT MDA

	Beta				Odds Ratio		
Variable	**Estimate**	**Lower CI**	**Upper CI**	**P Value**	**Estimate**	**Lower CI**	**Upper CI**
Sociodemographic Measures							
Age							
16-20	-2.64	-3.16	-2.11	0.0000	0.07	0.04	0.12
21-24	-2.69	-3.34	-2.04	0.0000	0.07	0.04	0.13
25-34	-1.85	-2.41	-1.30	0.0000	0.16	0.09	0.27
35-44	-1.65	-2.26	-1.05	0.0000	0.19	0.10	0.35
45-64	-1.14	-1.52	-0.76	0.0000	0.32	0.22	0.47
65+	(reference)	---	---	---	---	---	---
Race							
Non-Hispanic White	(reference)	---	---	---	---	---	---
Non-Hispanic Black	0.53	0.08	0.98	0.0219	1.70	1.08	2.67
Hispanic	0.79	0.38	1.20	0.0002	2.21	1.46	3.34
Other	0.41	-0.17	0.99	0.1672	1.51	0.84	2.70
Employment Status							
Full Time	(reference)	---	---	---	---	---	---
Part Time	0.19	-0.26	0.64	0.4078	1.21	0.77	1.90
Unemployed	0.52	-0.12	1.16	0.1137	1.68	0.88	3.19
Other	0.58	0.18	0.98	0.0046	1.79	1.20	2.67
Drinking and Driving-Related Attitudes							
Very Likely to Be Stopped by Police	0.65	0.24	1.06	0.0019	1.91	1.27	2.87

Those Who Intervene to Prevent a Friend, Family Member, or Acquaintance From Driving After Drinking Versus Those Who Do Not

This multivariate model was designed to determine the characteristics of those individuals who intervene to prevent a friend, family member, or acquaintance from drinking and driving (when they had too much to drink to drive safely, yet were planning on driving anyway). Individuals who were more likely to intervene included those who 1) were between the ages of 25 and 64, 2) were aware of the minimum drinking age, 3) had been a designated driver in the past year and/or 4) rode with a designated driver in the past year. Those who view drinking and driving as a major threat were also more likely to intervene. In contrast, problem drinkers, and those who felt they had to drink because everyone else was drinking, were less likely to intervene than others.

TABLE 9: THOSE WHO INTERVENE TO PREVENT DRIVING AFTER DRINKING

	Beta				Odds Ratio		
Variable	**Estimate**	**Lower CI**	**Upper CI**	**P Value**	**Estimate**	**Lower CI**	**Upper CI**
Sociodemographic Measures							
Age							
16-20	0.26	-0.56	1.09	0.5318	1.30	0.57	2.96
21-24	0.49	-0.25	1.23	0.1944	1.63	0.78	3.42
25-34	0.65	0.10	1.20	0.0201	1.92	1.11	3.31
35-44	0.74	0.19	1.28	0.0085	2.09	1.21	3.61
45-64	0.81	0.37	1.25	0.0003	2.24	1.44	3.48
65+	(reference)	---	---	---	---	---	---
Drinking and Driving-Related Behaviors							
Been a Designated Driver, Past Year	0.90	0.52	1.28	0.0000	2.46	1.68	3.60
Problem Drinker	-0.75	-1.21	-0.28	0.0016	0.47	0.30	0.75
Aware of Minimum Drinking Age	0.43	0.09	0.77	0.0130	1.54	1.09	2.15
Drinking and Driving-Related Situations							
Had to Drink Because Everyone Else Was	-0.67	-1.19	-0.14	0.0127	0.51	0.30	0.87
Rode With DD Last Year	0.43	0.03	0.83	0.0332	1.54	1.03	2.29
Drinking and Driving-Related Attitudes							
Drinking and Driving as a Major Threat	0.42	0.04	0.80	0.0312	1.52	1.04	2.22

Those Who Intervene Effectively to Prevent a Friend, Family Member or Acquaintance From Driving After Drinking Versus Those Who Do Not

A follow-up model was designed to determine the characteristics of those individuals who intervene effectively to prevent a friend, family member, or acquaintance from driving after drinking too much to drive safely. For the purposes of this study, *effective intervention* occurred when an individual did something to try and prevent someone from driving after drinking, and the alcohol-impaired person refrained from driving. The comparison group refers to those who intervene, but the alcohol-impaired person did not refrain from driving. Several indicators were predictive of whether or not someone intervened effectively, including 1) being between the ages of 16 and 20, 2) being Non-Hispanic Black, and 3) believing that it is very likely that people who drink and drive will be stopped by police. In contrast, individuals who 1) reported hosting a party where youth younger than age 21 were drinking, 2) had been arrested for drinking and driving, and/or 3) reported riding with someone who may have had too much to drink to drive safely were less likely to be effective in their attempts to intervene.

TABLE 10: THOSE WHO INTERVENE EFFECTIVELY TO PREVENT DRIVING AFTER DRINKING

	Beta				Odds Ratio		
Variable	**Estimate**	**Lower CI**	**Upper CI**	**P Value**	**Estimate**	**Lower CI**	**Upper CI**
Sociodemographic Measures							
Age							
16-20	0.92	0.16	1.67	0.0170	2.50	1.18	5.29
21-24	-0.01	-0.57	0.56	0.9800	0.99	0.56	1.75
25-34	-0.18	-0.68	0.33	0.4914	0.84	0.51	1.39
35-44	0.00	-0.54	0.55	0.9901	1.00	0.58	1.73
45-64	0.16	-0.30	0.62	0.4897	1.18	0.74	1.86
65+	(reference)	---	---	---	---	---	---
Race							
Non-Hispanic White	(reference)	---	---	---	---	---	---
Non-Hispanic Black	0.63	0.05	1.21	0.0321	1.88	1.06	3.37
Hispanic	-0.24	-0.90	0.41	0.4628	0.78	0.41	1.51
Other	-0.18	0.80	0.44	0.5662	0.83	0.45	1.55
Drinking and Driving-Related Behaviors							
Hosted Party – Under 21s Drinking	-0.59	-1.12	-0.06	0.0294	0.56	0.33	0.94
Drinking and Driving-Related Situations							
Been Arrested for DD, Past 2 Years	-1.22	-2.09	-0.36	0.0057	0.29	0.12	0.70
Rode With Someone Who Had Too Much to Drink	-0.95	-1.32	-0.57	0.0000	0.39	0.27	0.56
Drinking and Driving-Related Attitudes							
Very Likely to Be Stopped by Police	0.66	0.07	1.25	0.0286	1.93	1.07	3.49

Section IV: Trends for 1993, 1995, 1997, 1999, 2001, 2004, and 2008

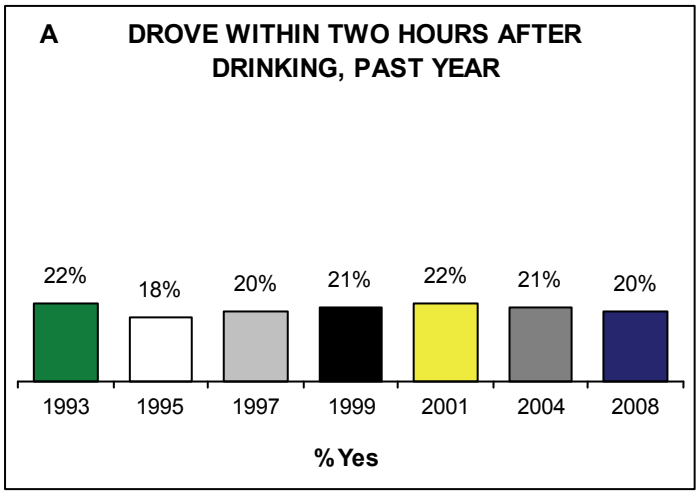
Chapter 11: Trends in Drinking and Driving Attitudes and Behaviors: Data From 1993, 1995, 1997, 1999, 2001, 2004, and 2008

This 2008 survey marks the eighth in a series of drinking and driving attitudes and behavior tracking surveys conducted by NHTSA. As such, this section presents trend data for measures that were included in previous versions of this survey to show how drinking and driving attitudes and behaviors have changed over time—both overall and by age and gender. Previous reports presented the data only for ages 16 through 64. This report presents the data for all ages 16 and older. Therefore, the survey results will not match those presented earlier. Additionally, because substantial changes in the survey instrument and sampling methodology were made between the 1991 and 1993 survey administrations, data from the 1991 survey are not presented here.

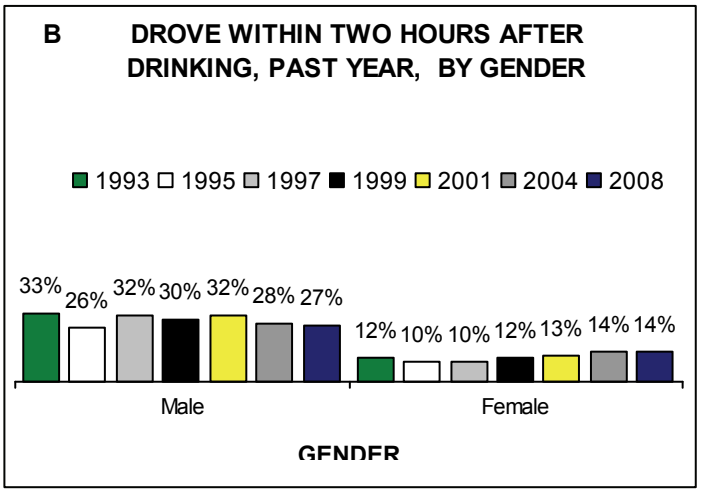
This chapter begins with data on past-year and past-month drinking and driving activity. It follows with a series of Figures and Tables addressing the perceived threat of drinking and driving, attitudes and awareness regarding alcohol impairment, participation in impaired driving (as driver and passenger), intervention and avoidance activity, and enforcement (attitudes and exposure).

In general, the 2008 data showed little change from earlier years, particularly when compared to the preceding 2004 survey. An exception was the increase in number of past-month drinking-driving trips (85.5 million), which reversed a decline in such trips since 1995. Noticeable improvements in aspects of the drinking and driving problem tended to be discernible only when comparing the 2008 data to the earliest years of the survey, with most or all of the gains having been realized quite some time ago.

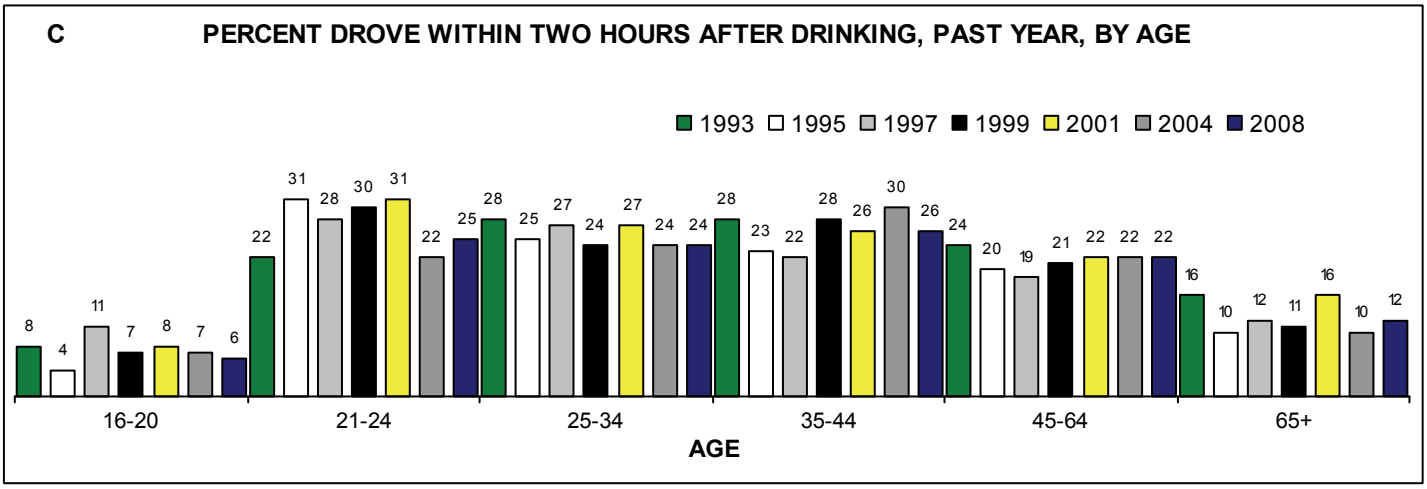
FIGURE 42: TRENDS IN PAST-YEAR DRINKING AND DRIVING



Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?
*[Base: total**]*



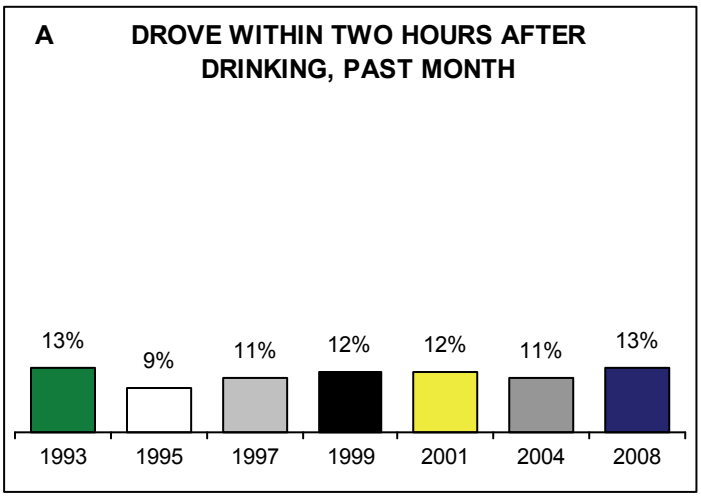
Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?
*[Base: total**]*



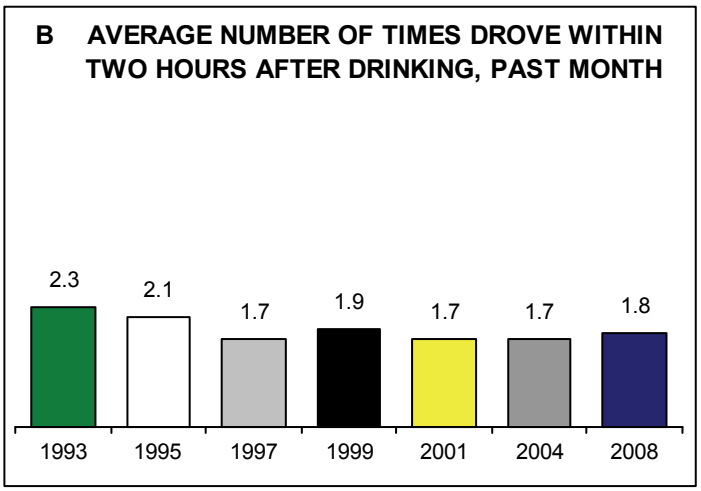
Q33: In the past 12 months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?
*[Base: total**]*

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

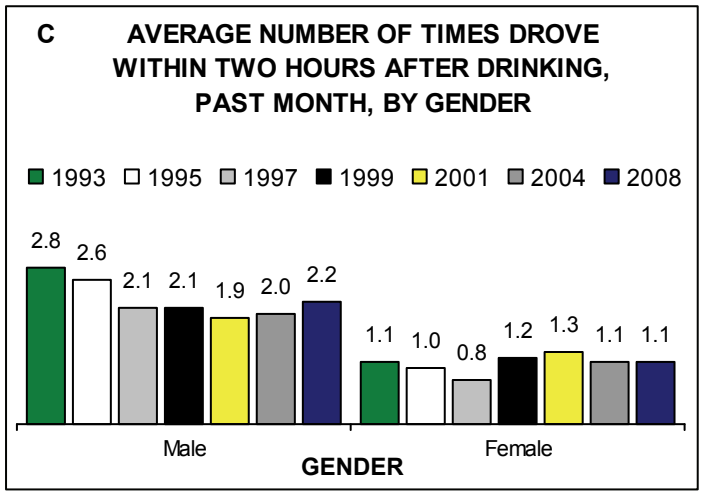
FIGURE 43: TRENDS IN PAST-MONTH DRINKING AND DRIVING



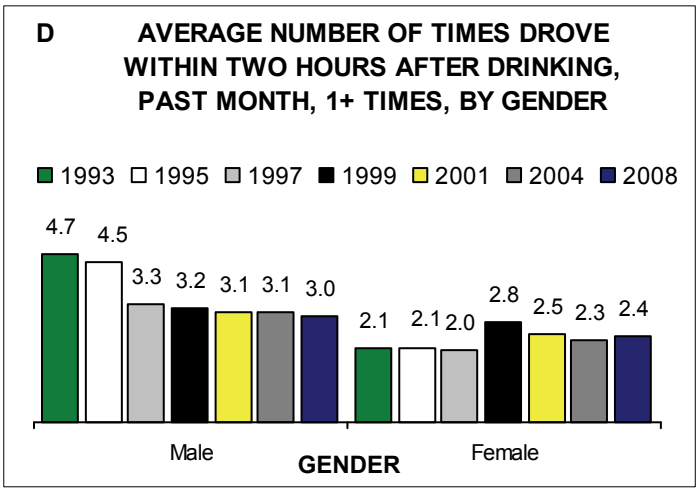
Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages? % one or more times.
*[Base: total**]*



Q35: In the past 30 days, how many times have you driven a motor vehicle within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers**]*



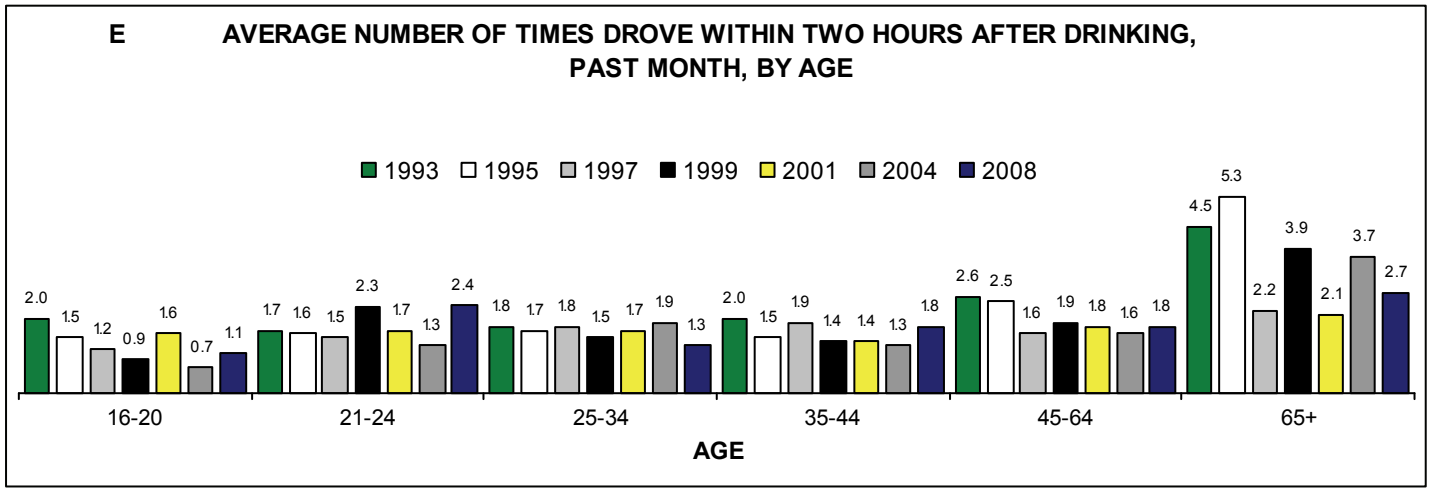
Q35: In the past 30 days, how many times have you ever driven within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers**]*



Q35: In the past 30 days, how many times have you ever driven within two hours after drinking alcoholic beverages?
*[Base: drinking-drivers, past 30 days, 1 or more times**]*

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

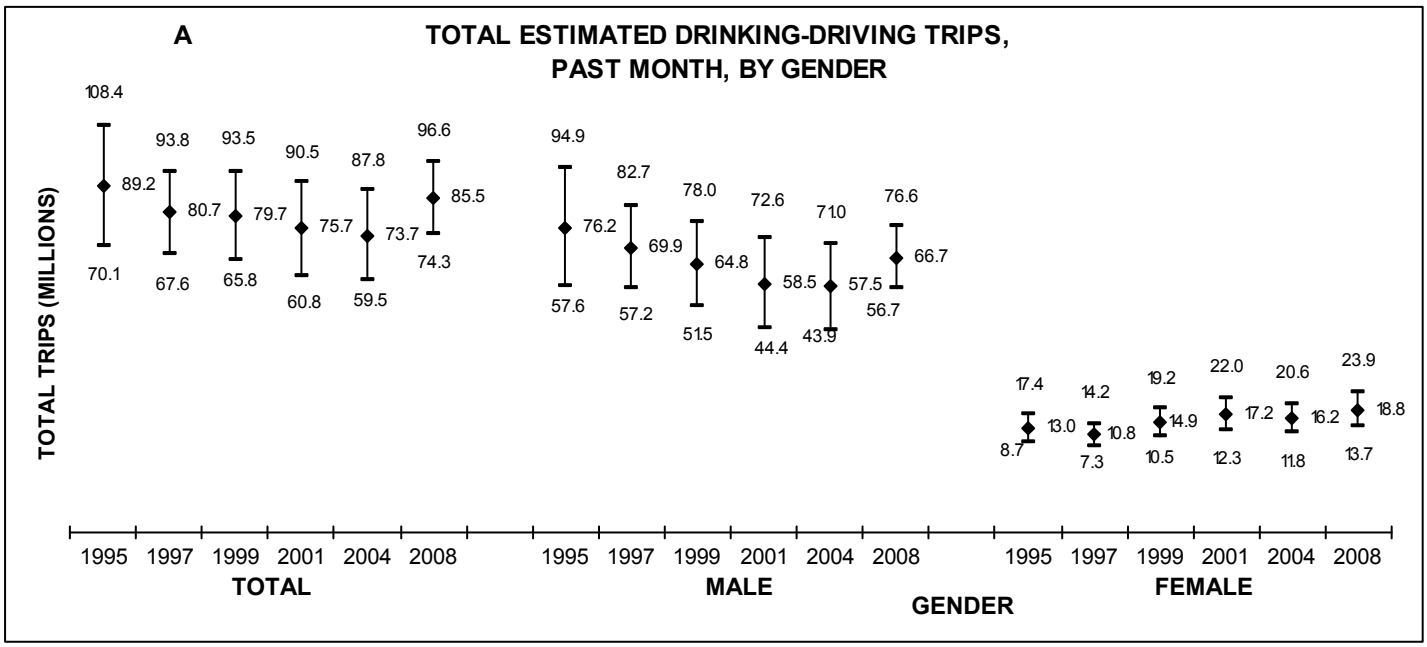
FIGURE 43: TRENDS IN PAST-MONTH DRINKING AND DRIVING (CONTINUED)

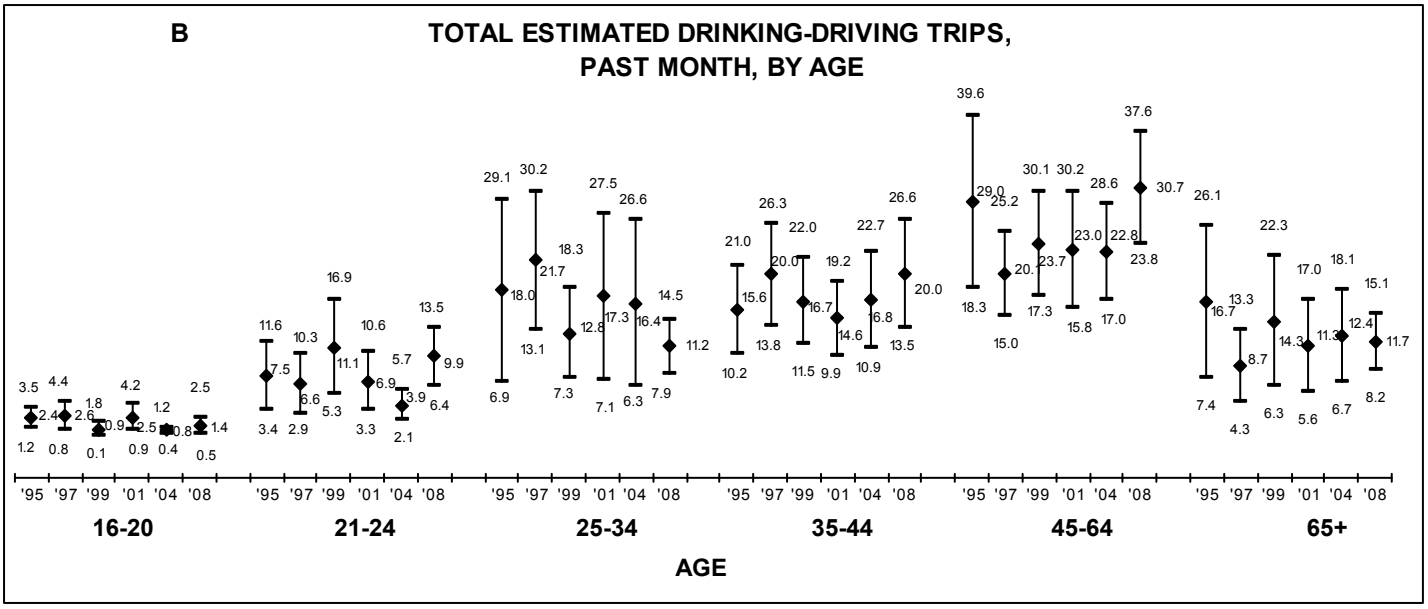


*Q35: In the past 30 days, how many times have you ever driven within two hours after drinking alcoholic beverages? [Base: drinking-drivers**]*

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

FIGURE 44: NATIONAL ESTIMATES OF TOTAL MONTHLY DRINKING-DRIVING TRIPS*

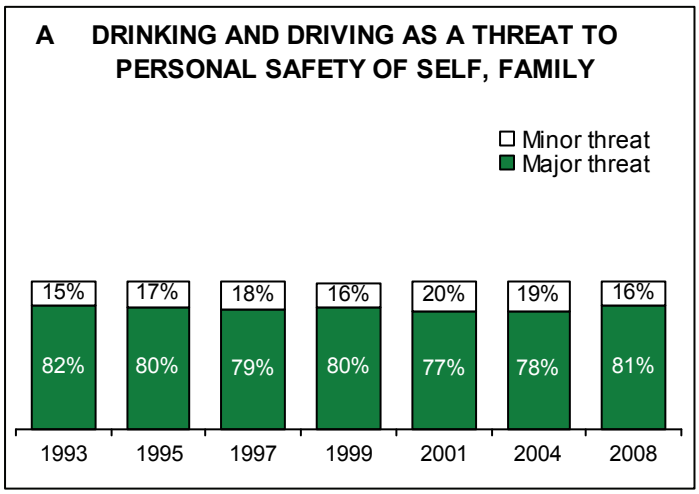




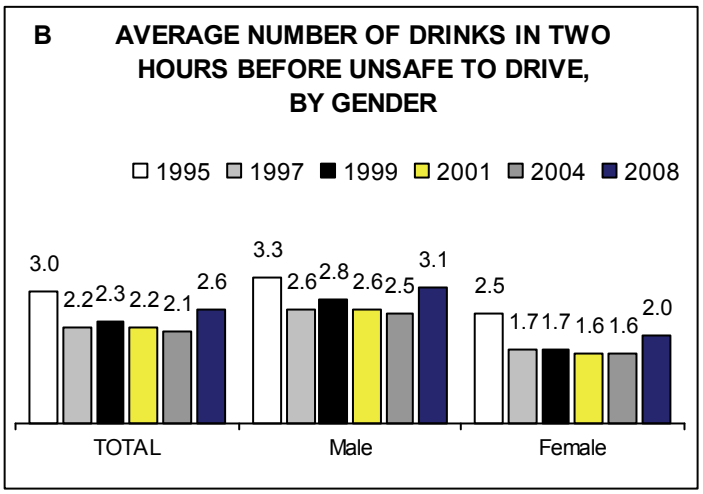
*Total trips were summed across all respondents and data were projected to the total U.S. population age 16 or older.

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

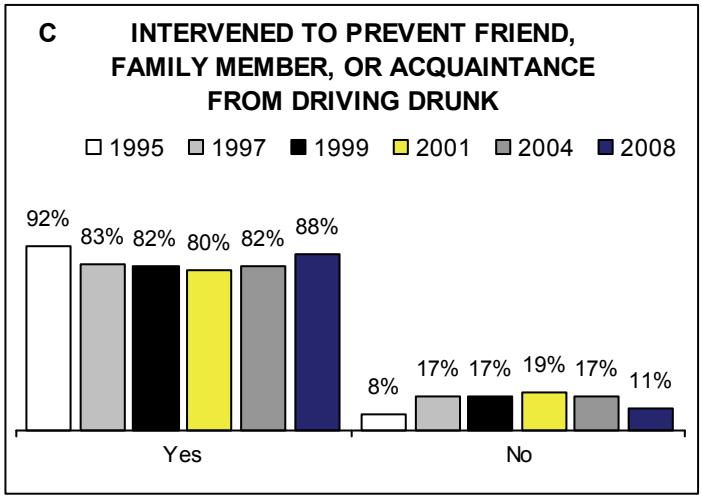
FIGURE 45: TRENDS IN ATTITUDES ABOUT DRINKING AND DRIVING AND AWARENESS AND KNOWLEDGE OF BAC LEVELS



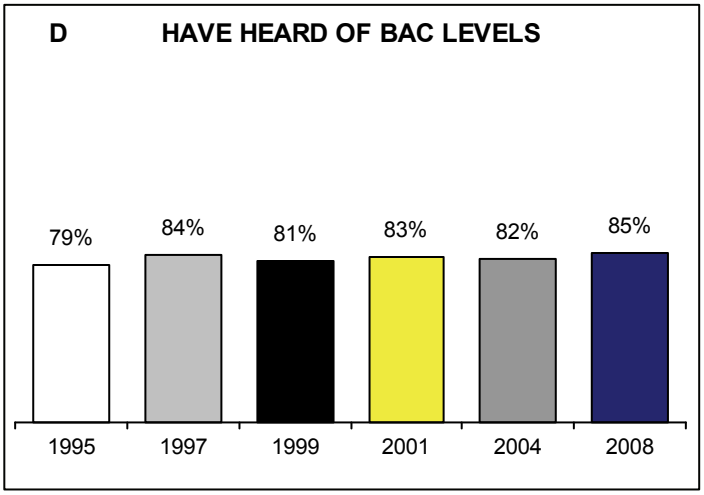
Q103: In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family? Would you say it is a major threat, a minor threat, or not a threat?
*[Base: total**]*



Q31: How many [drinks of alcoholic beverage drunk most often] could you drink in two hours before it would be unsafe for you to drive?[17]
*[Base: drivers who drink**]*



Q100: Think of the most recent time you were in this situation. Did you do something to stop them from driving?
*[Base: total with a friend, family member, or acquaintance who had too much to drink to drive safely yet was planning to drive anyway, one or more times in past year**]*



Q123: The amount of alcohol in a person's body can be measured in terms of "Blood Alcohol Concentration" which is often called BAC level. Have you ever heard of blood alcohol concentration or BAC levels before today?
*[Base: total**]*

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

[17]Averages were calculated excluding outliers greater than '30' drinks (Figure 45B).

TABLE 11: NUMBER OF TIMES DRIVING WHEN THOUGHT ONE WAS OVER THE LEGAL LIMIT, PAST 12 MONTHS, BY GENDER AND AGE

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1999	2.3	3.0	0.8	2.4	2.4	6.0	2.0	0.6	0.3
2001	1.7	1.9	1.1	9.9	3.8	1.9	0.8	1.1	0.3
2004	1.5	1.8	0.8	1.5	1.4	2.1	0.7	2.1	0.2
2008	1.6	2.1	0.6	2.5	2.9	2.3	1.9	0.8	0.7

Q52: About how many times in the PAST 12 MONTHS did you drive when you thought you were OVER THE LEGAL LIMIT FOR ALCOHOL AND DRIVING? That is, the amount of alcohol in your body was greater than the law allows.
*[Base: drinking-drivers**]*

Note: the question was not asked in 1993 or 1997, and sample sizes were too small to report answers to the question in 1995.

TABLE 12: NUMBER OF DRINKS, MOST RECENT DRINKING-DRIVING OCCASION, BY GENDER AND AGE

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1995	2.9	3.1	2.4	5.0	3.4	3.0	2.8	2.4	2.4
1997	2.5	2.7	2.2	4.6	3.2	2.8	2.3	2.1	1.6
1999	2.7	2.9	2.2	6.3	3.3	3.3	2.6	1.9	1.9
2001	2.6	2.8	2.1	5.1	3.5	2.9	2.5	2.1	1.7
2004	2.5	2.7	2.1	5.0	2.7	2.7	2.6	2.3	1.8
2008	2.5	2.7	2.1	4.9	3.8	2.8	2.5	2.0	.7

Q38: How many drinks did you have on that (most recent) occasion?
*[Base: drinking-drivers**]*

Note: the question was not asked in 1993. Averages were calculated excluding an outlier of '60' drinks in 2008.

TABLE 13: TIME (IN MINUTES) BETWEEN DRINKING AND DRIVING, MOST RECENT DRINKING-DRIVING OCCASION, BY GENDER AND AGE

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1995	57.7	55.1	63.7	61.9	53.8	52.4	57.6	62.6	65.0
1997	45.7	44.2	49.6	64.3	41.1	44.1	41.5	44.7	60.2
1999	44.1	43.0	46.7	44.4	44.3	42.1	41.0	48.4	44.4
2001	43.2	40.7	49.2	44.7	44.1	40.9	49.9	42.0	36.9
2004	44.6	41.9	50.0	40.5	52.7	39.2	44.8	47.4	41.5
2008	42.0	39.2	47.1	43.4	39.1	46.1	39.9	40.9	45.7

Q41: How long after your last drink did you start driving?
*[Base: drinking-drivers**]*

Note: the question was not asked in 1993.

TABLE 14: RODE WITH A DRIVER WHO MAY HAVE CONSUMED TOO MUCH ALCOHOL TO DRIVE SAFELY, BY GENDER AND AGE (IN PERCENTAGES)

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1993	12%	12%	12%	25%	24%	16%	11%	8%	5%
1995	9%	10%	8%	22%	20%	13%	8%	5%	3%
1997	10%	10%	9%	23%	18%	11%	9%	6%	4%
1999	11%	11%	11%	27%	23%	14%	11%	5%	4%
2001	11%	12%	10%	21%	26%	14%	9%	7%	4%
2004	8%	8%	7%	14%	15%	13%	8%	5%	2%
2008	8%	8%	7%	12%	18%	9%	9%	5%	3%

Q57: 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: total**]*

TABLE 15: RODE WITH A DESIGNATED DRIVER IN PAST YEAR, BY GENDER AND AGE (IN PERCENTAGES)

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1993	33%	36%	31%	53%	59%	49%	32%	23%	13%
1995	29%	32%	26%	44%	59%	39%	30%	17%	13%
1997	32%	35%	30%	57%	68%	42%	30%	23%	10%
1999	32%	33%	31%	53%	53%	49%	35%	20%	10%
2001	33%	35%	30%	52%	68%	45%	35%	21%	12%
2004	32%	35%	29%	46%	59%	47%	36%	24%	9%
2008	33%	35%	31%	45%	61%	44%	35%	27%	12%

Q61: In the past 12 months, have you ever ridden anywhere with someone else who agreed to be the designated driver?
*[Base: total**]*

TABLE 16: BEEN A DESIGNATED DRIVER IN PAST YEAR, BY GENDER AND AGE (IN PERCENTAGES)

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1993	40%	38%	42%	59%	70%	53%	42%	28%	17%
1995	36%	36%	36%	52%	57%	52%	39%	27%	9%
1997	42%	41%	44%	66%	73%	56%	45%	30%	15%
1999	44%	41%	47%	68%	77%	61%	50%	32%	11%
2001	43%	42%	44%	61%	72%	59%	48%	35%	13%
2004	41%	40%	42%	58%	75%	55%	46%	31%	12%
2008	44%	42%	45%	53%	72%	58%	50%	38%	16%

Q64b: In the past 12 months, have you ever been the designated driver when driving with others?
*[Base: drivers **]*

TABLE 17: AVOIDED DRIVING BECAUSE FELT THAT ONE HAD TOO MUCH TO DRINK TO DRIVE SAFELY, PAST 12 MONTHS, BY GENDER AND AGE (IN PERCENTAGES)

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1993	46%	45%	48%	77%	78%	61%	45%	30%	9%
1995	49%	48%	51%	78%	80%	66%	44%	30%	18%
1997	48%	48%	50%	90%	79%	59%	47%	31%	18%
1999	45%	45%	45%	87%	84%	60%	42%	28%	12%
2001	50%	52%	47%	81%	82%	75%	44%	39%	12%
2004	51%	53%	46%	84%	70%	70%	47%	43%	20%
2008	53%	54%	50%	93%	90%	72%	55%	39%	10%

Q54: 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: drinking-drivers]

TABLE 18: PERCEIVED MAXIMUM NUMBER OF DRINKS A DESIGNATED DRIVER CAN HAVE, BY GENDER AND AGE

Year	Total	Gender		Age					
		Male	Female	16-20	21-24	25-34	35-44	45-64	65+
1995	1.43	1.49	1.38	.95	1.36	1.39	1.10	1.55	2.35
1997	.48	.55	.42	.70	.60	.54	.50	.39	.40
1999	.53	.53	.53	.59	.90	.65	.51	.40	.48
2001	.51	.58	.45	.53	.82	.63	.48	.40	.48
2004	.51	.54	.48	.58	.86	.63	.40	.45	.48
2008	.50	.53	.48	.56	.66	.51	.49	.42	.59

Q66: What is the maximum number of alcoholic drinks a person can have if he or she is the designated driver?
*[Base: total **]*

Note: the question was not asked in 1993. Averages were calculated excluding an outlier of '97' in 2000 and 2008.

TABLE 19: BELIEVE THAT THE PENALTIES FOR VIOLATING DRINKING AND DRIVING LAWS SHOULD BE MORE, OR LESS, SEVERE (IN PERCENTAGES)

Year	Much more severe	Somewhat more severe	Somewhat less severe	Much less severe	Stay the same as they are now	Don't know/Refused
1993	38%	33%	2%	1%	23%	3%
1995	47%	25%	2%	1%	21%	4%
1997	44%	31%	2%	0%	22%	0%
1999	43%	30%	3%	1%	21%	2%
2001	43%	27%	3%	1%	24%	2%
2004	44%	26%	3%	1%	25%	2%
2008	40%	26%	3%	1%	28%	2%

Q116: In your opinion, should the penalties for violating drinking and driving laws be…?
*[Base: total**]*

TABLE 20: PERCENT OF DRIVERS WHO HAVE SEEN A SOBRIETY CHECKPOINT IN THE PAST YEAR, BY AGE

Year		Total		Age					
				16-20	21-24	25-34	35-44	45-64	65+
1993		47%		53%	58%	53%	52%	43%	31%
1995		29%		37%	42%	35%	31%	25%	17%
1997		29%		40%	47%	36%	31%	24%	14%
1999		33%		37%	47%	40%	41%	28%	19%
2001		32%		41%	34%	40%	34%	31%	19%
2004		32%		40%	41%	39%	34%	28%	20%
2008		30%		38%	42%	36%	32%	28%	16%

Q120: 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: total**]*

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

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

TABLES 21-23: UNWEIGHTED SAMPLE SIZES FOR FIGURES IN TRENDS SECTION

Base Tables for Figures 42-45.

TOTAL ADULTS 16+												
		Gender		Age						Drinking-drivers	Other drivers who drink	Total drivers who drink
	Total 16+	Male 16+	Female 16+	16-20	21-24	25-34	35-44	45-64	65+			
1993	4010	1969	2041	617	474	1082	679	738	420	1116	1421	2537
1995	4008	1982	2026	946	212	693	709	911	537	823	1264	2087
1997	4010	1734	2276	282	225	778	895	1159	619	964	1487	2451
1999	5127	2205	2922	318	323	930	1077	1601	863	1155	1875	3030
2001	6002	2607	3395	901	324	1018	1087	1728	944	1300	2188	3488
2004	6049	2592	3457	890	237	829	991	1879	1166	1162	2275	3437
2008	6999	3132	3867	537	467	961	1005	2412	1548	1466	2548	4014

TOTAL ADULTS 16+, Drank Alcohol, Past Year												
		Gender		Age						Drinking-drivers	Other drivers who drink	Total drivers who drink
	Total 16+	Male 16+	Female 16+	16-20	21-24	25-34	35-44	45-64	65+			
1993	2670	1423	1247	331	367	829	495	455	193	1112	1421	2361
1995	2237	1231	1006	402	153	493	447	529	213	823	1264	2087
1997	2590	1261	1329	149	179	590	643	727	276	964	1487	2451
1999	3156	1501	1655	156	251	662	740	972	366	1155	1875	3030
2001	3634	1742	1892	416	249	774	756	1014	425	1300	2188	3488
2004	3575	1655	1920	376	170	581	677	1220	520	1162	2275	3437
2008	4235	2057	2178	198	356	687	691	1535	730	1466	2548	4014

TOTAL ADULTS 16+, Drove Within Two Hours of Drinking, Past Year									
		Gender		Age					
	Total 16+	Male 16+	Female 16+	16-20	21-24	25-34	35-44	45-64	65+
1993	1116	774	342	83	162	397	221	185	68
1995	823	577	246	87	72	208	189	211	56
1997	964	651	313	34	71	252	252	269	79
1999	1155	737	418	33	118	263	318	330	90
2001	1300	823	477	80	99	296	305	395	125
2004	1162	736	426	62	59	210	256	439	128
2008	1466	887	579	39	127	270	278	544	199

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