National Survey on Distracted Driving Attitudes and Behaviors 2012

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16. Abstract The 2012 National Survey on Distracted Driving Attitudes and Behaviors (NSDDAB) is the second in a series of surveys on distracted driving that have provided data to help further the understanding of driving behavior and to contribute to the development of countermeasures and interventions to reduce distracted driving on the Nation's roadways. Like the previous 2010 study, this survey yields national estimates of behavior and attitudes toward distracted driving in the United States. The present study differs from the earlier study in that it developed and used a driver typology based on the pattern of responses across multiple distracted driving behavior questions. Cluster analysis identified two distinct groups of drivers with similar overall behavioral tendencies and, among those categorized, 33% are distraction-prone and 67% are distraction-averse. Driver type is a powerful predictor of norms and attitudes towards distracted driving behavior and sanctions for distracted driving. This report details the findings from the 2012 NSDDAB, examining the data using the above mentioned driver typology as well as standard demographics. In the final chapter, results from the current study are compared to those of the 2010 NSDDAB.		
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TABLE OF CONTENTS

EXECUTIVE SUMMARY

The 2012 National Survey on Distracted Driving Attitudes and Behaviors (NSDDAB) is the second survey conducted by NHTSA to assess attitudes and self-reported behaviors related to distracted driving, cell phones, and texting. The first Distracted Driving Survey was conducted in 2010. The 2012 survey was designed and administered by Abt SRBI, Inc, a national survey research organization. The survey employed a partial overlapping dual frame sample design of households with landline telephones as well as households that relied on cell phones, and collected data from interviews with drivers 16 and older. Because younger respondents tend to be underrepresented in landline telephone surveys, the survey included a landline telephone oversample of drivers 16 to34 years old. Interviewing began on February 27, 2012, and ended on June 11, 2012.

This report presents the survey findings from the 2012 NSDDAB. The data is weighted to yield national estimates. Readers are cautioned that some subgroup analyses are based on a smaller number of cases. A full description of the survey methodology and the questionnaire are presented in the appendices to this report.

Driver Characteristics

- **Driver Types**. A driver typology based on the pattern of responses across 10 questions concerned with distracted driving classified 99% of respondents into two distinct groups of drivers with similar overall behavioral tendencies. Of those respondents categorized, 33% were classified as *distraction-prone* drivers and 67% were classified as *distraction-averse* drivers. Drivers classified as distraction-prone tend to be younger, be more affluent, and have more formal education than distraction-averse drivers. More than half of drivers 35 years and younger were classified as distraction-prone compared to 5% of drivers 65 or older. Almost half of drivers with annual household incomes exceeding $100,000 were classified as distraction-prone compared to 26% of drivers with annual household incomes below $15,000. Among drivers without a high school degree, only one-quarter were classified as distraction prone, compared to almost half (47%) of drivers with college degrees. There was almost no difference in the proportion of distraction-prone and distraction-averse drivers by gender.

- **Driving Frequency.** More than 4 in 5 respondents (83%) drive every day or almost every day. Thirteen percent report driving a few days a week, while 4% drive a few days a month or less often. The highest proportions of distraction-prone drivers were among those who drove every day (41%) and also those who drove only a few days a year (38%). The lowest proportion was among drivers who drove a few days a week (18%).

- **Vehicle Type.** The majority of drivers (56%) report they most often drive a passenger car. Seventeen percent of respondents report driving a pickup truck, 16% report driving an SUV, and 8% report driving a van or a minivan most often. The proportion of distraction-prone drivers showed little variation across vehicle types.

Phone-Related Distracted Driving

- **Cell Phone Ownership.** Overall, 91% of respondents report owning some type of cell phone, and 93% of respondents who report driving every day state that they currently own a cell phone.

- **Talking on Cell Phone While Driving.** Almost half (48%) of drivers report answering their cell phone when driving at least some of the time. Two in 5 drivers (40%) report never answering their phones while driving.

  More than half of drivers (58%) who answer their phones while driving continue to drive while completing the conversation. Seventeen percent of drivers inform the callers they will call them back, 14% report handing the phone to a passenger in the car, and 11% pull over to safe locations to continue the conversation.

  Almost a quarter of drivers (24%) report that they are at least sometimes willing to make a cell phone call while driving. Nearly half (49%) report that they are never willing to initiate a cell phone call while driving.

  The majority of drivers who report making or accepting calls at least rarely while driving (77%) report that the frequency with which they use cell phones when driving has not changed in the past 30 days, 19% report a decrease, and 3% report an increase in their frequency of cell phone use. Of those who reported a decrease, 24% cited an increased awareness of safety as the reason for the change.

- **Text Messaging and E-Mailing While Driving.** One in 10 respondents (10%) reported sending text messages or e-mails while driving at least sometimes, while almost 80% of respondents stated that they never do so. An additional 11% reported sending text messages or e-mails on rare occasions. Reading text messages or e-mails while driving was slightly more common, with 14% of respondents stating that they do so at least some of the time and almost three-quarters (74%) stating that they never do so.

  Of drivers who send text messages or e-mails, 44% state that they wait until they reach stop lights to send the text messages. About one-third (35%) of drivers continue to drive when sending text messages. Less frequently, drivers report handing the phone to a passenger (8%), using a voice command feature to send a text message (7%), or pulling over to the side of the road (6%).

  The majority of drivers (67%) reported no changes in the frequency of sending text messages in the past 30 days, 27% reported a decrease, and 5% reported an increase. Reasons given by those who reported decreases included an increased awareness of safety (38%), the law banning text messages (8%), and influence and pressure from others (7%).

- **Perception of prevalence of talking and texting while driving.** Overall, respondents perceive distracted driving behavior to be fairly common, with 70% of respondents stating that more than half of drivers talk on cell phones at least occasionally while driving, while 43% of respondents estimate that more than half of drivers at least occasionally send text messages or e-mails while driving.

Perceptions of Safety

Half of drivers who talk on the cell phone while driving reported no difference in their driving when compared to not talking on the cell phone. However, 18% reported that they drove more slowly, 17% reported that they were distracted and not as aware, and another 5% stated that they were more focused and paid more attention to driving when on the phone. One-third of drivers who send text messages or e-mails while driving stated that there was no difference in their driving compared to times when they are not texting. However, 24% reported they were

distracted and not aware, 21% reported that they drove more slowly, and 11% reported that they tended to drift out of their lane of travel.

- **When asked about their feelings concerning safety if they were passengers in a car driven by a driver who was also doing various activities while driving**, most respondents indicated they would feel very unsafe if the driver was watching a movie (96%), using a laptop computer (95%), or reading a book or newspaper (95%). A majority reported that they would feel very unsafe if the driver were sending e-mails or text messages (86%) or reading e-mails or text messages (85%). Distraction-averse respondents were more likely than distraction-prone respondents to report feeling unsafe as passengers if their driver were reading or sending text messages. Almost all distraction-averse drivers (95%) reported they would feel very unsafe as passengers if their driver were reading or sending text messages, compared to 67% of respondents classified as distraction-prone drivers.

  Driver activities perceived as least unsafe by passengers included drivers singing along to the radio and drivers talking to other passengers. In these cases, 70% and 59% of respondents respectively stated they would feel safe. Approximately 2 out of 5 respondents (41%) reported that they would feel safe if their driver were talking on a cell phone with a hands-free device.

- **Respondents were asked how likely they would be to intervene if their driver were engaged in a series of other activities while driving.** Overall, 66% of respondents stated that they were at least somewhat likely to intervene if they were passengers in a car in which the driver were talking on a cell phone while holding the phone. Respondents who were classified as distraction-averse were more likely to intervene than respondents classified as distraction-prone. Among those classified as distraction-averse, 72% stated they would intervene compared to 57% of respondents who were classified as distraction–prone drivers.

  Overall, 87% of respondents indicated that they were at least somewhat likely to intervene if they were passengers in a car in which the driver was sending e-mails or text messages. Of respondents classified as distraction-averse drivers, 90% stated that they would intervene, compared to 81% of respondents classified as distraction-prone drivers.

Crashes

- Six percent of respondents were involved in a crash and 7% were involved in a near-crash in the past year. Of those, 2% involved cell phone-related distracted driving and 3% involved sending or reading text messages.

Distracted Driving Laws

- **Awareness of State Law Banning Talking and Texting on a Hand-Held Cell Phone While Driving.** Overall, more than half of respondents (54%) reported that their State does have a law banning talking on a cell phone while driving, while 15% of respondents were unsure if their State had such a law. Regarding a texting ban, 69% reported that their State has a law banning texting or e-mailing on a cell phone while driving. Seventeen percent of respondents were unsure if their State has such a law.

In States with laws banning cell phone use while driving, 88% of drivers were aware of the law and 4% thought their State had no such law. In States without laws banning cell phone use while driving, 42% of drivers accurately stated that their State did not have a law banning cell phone use, while 28% incorrectly thought their State had such a law, when it did not.

In States that ban sending or reading text messages and e-mails while driving, 65% of drivers knew about the law and 8% thought their State did not have a law. In States without laws that ban sending and receiving text messages and e-mails while driving, 29% were aware that their State did not have such a law, and 37% incorrectly thought their State had such a law, when it did not.

- **Support of a Law Banning Talking on a Hand-Held Cell Phone and Texting or E-mailing While Driving**. The majority of drivers support State laws banning talking on hand-held cell phones while driving (74%). An overwhelming majority (94%) support State laws that ban texting or e-mailing while driving. On average, these drivers thought the fine should be $209 for talking on a hand-held cell phone while driving and $279 for sending a text message or e-mail while driving.

Enforcement Program Awareness

Most respondents (86%) were not aware of any programs or special effort by police to ticket drivers in their communities for using hand-held cell phones while driving. Only 12% indicated they had heard of any such program.

The ways in which drivers were made aware of special efforts by police to ticket drivers for using cell phones while driving included TV news (28%), TV advertisement/public service announcements (15%), radio programs or radio news (8%), radio advertisement/public service announcements (9%), and billboards/signs (16%). Others were informed by friends or relatives (12%), witnessed enforcement activity (11%), or had direct contact with police officers (3%).[1]

Chances of Receiving a Ticket for Distracted Driving

Overall, slightly more than half of respondents in States with laws banning some form of cell phone use while driving (52%) thought a driver who regularly talks on a cell phone while driving was likely to get a ticket in the next 6 months, and 44% stated that it was unlikely that the driver would be ticketed. There was little difference between distraction-prone and distraction-averse drivers in this belief. However, drivers with less formal education were more likely to believe that the driver would be ticketed, while those with more formal education were more likely to believe that the driver would not be ticketed.

Just under half of respondents (46%) in States with laws banning texting or e-mailing believed that it was at least somewhat likely that drivers who frequently send text messages or e-mails while driving would get a ticket for this infraction in the next 6 months. However, 37% thought it was at least somewhat unlikely. Overall, there was little difference in this perception by driver type.

[1] This question was multiple response and some respondents provided more than one answer.

Educational Messages

Of all respondents, 63% had seen or heard a message discouraging distracted driving in the past 30 days. Drivers who drove every day were more likely than those who drove less frequently to report having seen or heard these messages. Respondents who were classified as distraction-averse were also more likely than distraction-prone respondents to report hearing or seeing these messages. Almost three-quarters of respondents (72%) reported TV as the source of the message. Billboards were reported by 27% of respondents, and 30% of respondents stated that the radio was the source of the message.

Safe Driving Slogans

Over 6 out of 10 respondents (61%) reported having heard or seen at least 4 safe driving slogans in the past 30 day, with men somewhat more likely than women to report so (66% versus 57%). The most frequent slogan reported was *Click It or Ticket*, with 75% of these respondents stating that they heard or saw it in the past 30 days. About 1 in 5 respondents indicated that they heard or saw "No Phone Zone," "Just drive," "One Text or Call Could Wreck It All," or "On the Road. Off the Phone," and 1 in 10 reported seeing or hearing "Phone in One Hand. Ticket in the Other" and "Put it Down."

Trends in Distracted Driving

Although the rates of engaging in the various distracted activities while driving varied slightly from 2010 to 2012, there was little change in the proportion of respondents who reported these behaviors. Approximately half of respondents (52% in 2010 and 49% in 2012) stated that they always or almost always talked to passengers while driving. In 2010, 14% of respondents reported always or almost always eating or drinking while driving, while in 2012, this percentage was 11%. In both 2010 and 2012, approximately 1% of respondents reported always or almost always reading and driving.

The proportion of respondents who always or almost always answer the phone while driving decreased between 2010 and 2012. In 2010 and 2012, 33% and 28% of respondents, respectively, answered incoming calls. The percentage of respondents always or almost always initiating phone calls decreased from 10% in 2010 to 6% in 2012.

The percentage of drivers who send text messages while driving increased slightly from 12% in 2010 to 14% in 2012. However, the proportion of drivers who always send or read text messages while driving remained the same at approximately 1%.

Both in 2010 and 2012, when asked if their rates of talking on the cell phone while driving or texting and driving had changed in the past 30 days, most drivers who engaged in these activities, indicated that the rates of these activities remained the same. Declines in cell phone conversations while driving were reported by 12% of respondents in 2010 and 19% in 2012. Among these drivers, an increased awareness of safety was the reason most often cited (by 31% in 2010 and 24% in 2012). Decreases in texting in the last 30 days were reported by 31% of respondents in 2010 and 27% of respondents in 2012. Among these drivers, reasons given for the decrease were an increased awareness of safety (32% in 2010 and 38% in 2012), the law (6% in 2010 and 8% in 2012), and influence and pressure from others (1% in 2010 and 7% in 2012).

Approximately 6 in 10 drivers in both 2010 and 2012 reported having seen or heard at least one educational message discouraging talking on cell phones or sending text messages or e-mails while driving in the past 30 days.

Support for laws banning hand-held cell phone use increased from 68% of all respondents in 2010 to 74% in 2012. Support for laws banning texting or e-mailing remained about the same with 93% of respondents in 2010 and 94% of respondents in 2012 supporting such a law.

CHAPTER 1
INTRODUCTION

Background

The National Highway Traffic Safety Administration of the U.S. Department of Transportation promotes the safety of motor vehicles and their occupants. The broad mission of NHTSA includes the reduction of traffic-related fatalities and injuries, reducing the economic repercussions of crashes, and promoting issues surrounding improved safety and responsible behavior among drivers. The increase in cell phone ownership and usage combined with the widespread availability of many other devices that can easily divert drivers' attention from the task of driving an automobile have made information on drivers' behaviors and attitudes toward distracted driving important to the safety of America's roadways.

The most common activities that drivers engage in while driving include talking with other passengers, changing radio stations or searching for CDs, making cell phone calls, receiving cell phone calls, dealing with children in the back seat, reading maps or directions, personal grooming, reading printed material, responding to pagers or beepers, using wireless Internet, and using GPS such as in-car navigation systems (Royal, 2003).

The use of technological devices while driving has become a focus of distracted driving research. In particular, use of cell phones while driving has been of increasing interest in the past decade. In 2010, 41% of drivers in the United States reported using cell phones to make or receive calls on at least some of their driving trips, and 17% reported using some type of hands-free device when using cell phones (Tison, Chaudhary, & Cosgrove, 2011).

Driver distraction contributes to crash-related fatalities and injuries, particularly among younger drivers, with 13% of drivers in fatal distraction-affected crashes under age 20. Overall, 9% of fatal crashes in the United States in 2010 involved driver distraction, and 13% of the drivers in these fatal crashes were reported to have been using a cell phone at the time of the crash (National Center for Statistics and Analysis, 2012).

To better understand the attitudes and self-reported behaviors related to cell phones, texting, and distracted driving, NHTSA conducted the National Survey on Distracted Driving Attitudes and Behaviors in 2010, and again in 2012. This report presents findings from the 2012 National Survey on Distracted Driving (NSDDAB). Specifically, the 2012 NSDDAB survey assessed the extent to which drivers are distracted by various activities; demographic and typological descriptions of drivers prone to distractions; the extent and frequency of using cell phones while driving; attitudes and perceptions about distracted driving; the extent and frequency of texting while driving; knowledge of and attitudes toward measures to deter distracted driving; perceptions about the danger of distracted driving; exposure to the consequences of distracted driving; willingness to intervene when someone is distracted while driving; and changes and trends in distracted driving behavior and attitudes since 2010.

Methodology

A total of 6,016 interviews were conducted among a national representative sample of people 16 or older who had driven a motor vehicle. To account for the current shift to cell phone use and the underrepresentation of younger people in samples using landline telephones, a partial overlapping dual sampling frame of households with landline phones, and households that relied only or mostly on cell phones, together with a landline phone oversample of people 16 to 34 years old was used. In all, 3,190 interviews were completed with people from landline households, 2,144 interviews with people from cell phone-only or cell phone-mostly households, and an additional 682 interviews of people 16 to 34 were completed from the landline phone oversample. The samples were combined and weighted to produce national estimates of the target population within specified limits of expected sampling variability, from which valid generalizations can be made to the general population of drivers in the United States.

The interviews were conducted from February 27 to June 11, 2012. Appendix B contains the complete description of the methodology and sample dispositions, including information on the computation of weights. There are also tables in Appendix B that show the margin of error for specific estimates (Table B-6), a given "N" size (Table B-7), and the comparison of subgroups (Table B-8) given the design effect associated with the study. These margins of error should be kept in mind when reviewing the figures and tables throughout the report.

The percentages presented in this report are weighted to accurately reflect the national population 16 or older. Unweighted sample sizes (Ns) are included so that readers know the exact number of respondents answering a given question, allowing them to estimate sampling precision.

Percentages for some items may not add to 100% due to rounding, or because the question allowed for more than one response. In addition, the number of cases involved in subgroup analyses may not sum to the grand total who responded to the primary questionnaire item being analyzed. Reasons for this include some form of non-response on the grouping variable (e.g., "Don't Know" or "Refused"), or use of only selected subgroups in the analysis.

For rounding purposes, all variables are rounded based on two decimal places. Any value that had a decimal of .50 or greater was rounded up and any value that had a decimal below .50 was rounded down.

CHAPTER 2
DESCRIPTION OF RESPONDENT POPULATION

To capture a sample of respondents that was representative of drivers 16 and older in the United States, a landline cross section sample, a landline oversample of respondents 16 to 34, and a cell phone sample were used (see Table 2-1). Of the 6,016 survey respondents, 3,190 (53.0%) were sampled from the landline cross section sample, 682 from the landline oversample, and 2,144 from the cell phone sample (35.6%). The cell phone sample captured several groups often unreachable by landline phones. Drivers younger than 20 make up 8.4% of the cell phone sample, and more than 19% of the cell phone sample are younger than 25. By contrast, 2.6% of respondents in the landline cross section sample are younger than 25. The landline oversample captured more respondents in the younger age groups, with 41% of respondents in the landline oversample being 24 or younger.

Table 2-1: Demographics by Sample Type – Unweighted

	Cell Phone Sample (N=2,144)	Landline Cross Section (N=3,190)	Landline Oversample (N=682[2])	Total Sample (N=6,016)
Gender				
Female	42.5%	58.0%	53.4%	48.0%
Male	57.5%	42.0%	46.6%	52.0%
Age				
Mean	39.98	55.67	25.95	46.64
16 to 20	8.4%	1.4%	24.5%	6.5%
21 to 24	10.8%	1.2%	16.6%	6.4%
25 to 34	23.9%	6.9%	58.9%	18.8%
35 to 44	16.5%	13.8%	0.0%	13.2%
45 to 54	18.8%	20.8%	0.0%	17.7%
55 to 64	12.6%	24.8%	0.0%	17.7%
65 or older	7.3%	28.7%	0.0%	17.8%
2011 Household Income				
Less than $10,000	7.4%	3.5%	4.4%	5.0%
$10,000 to $14,999	6.2%	4.3%	5.6%	5.1%
$15,000 to $24,999	9.2%	8.1%	7.8%	8.4%
$25,000 to $49,999	22.9%	18.5%	20.8%	20.3%
$50,000 to $99,999	27.3%	28.6%	25.2%	27.8%
$100,000 to$149,999	10.9%	12.1%	11.4%	11.6%
$150,000 to $199,999	4.0%	4.5%	5.3%	4.4%
$200,000 or more	3.4%	5.8%	4.0%	4.7%
Education				
No HS degree	10.2%	5.5%	19.1%	8.7%
HS graduate	28.3%	25.5%	25.4%	26.5%
Some college	24.3%	23.3%	25.2%	23.9%
College graduate	21.2%	21.6%	17.0%	20.9%

[2] 100 respondents completed the oversample survey, but reported that they were older than 34. Those respondents were treated as part of the landline survey for analysis purposes.

Table 2-1: Demographics by Sample Type – Unweighted (Continued)

	Cell Phone Sample (N=2,144)	Landline Cross Section (N=3,090)	Landline Oversample (N=782)	Total Sample (N=6,016)
Some graduate school	2.4%	3.4%	2.3%	2.9%
Graduate degree	12.3%	19.5%	10.4%	15.9%
Number of Children 15 or Younger in Household				
0	60.6%	71.0%	42.1%	64.0%
1 to 3	35.6%	25.6%	52.5%	32.2%
4 or more	2.2%	1.4%	3.8%	2.0%
Ethnicity				
Hispanic	16.1%	6.6%	14.1%	10.8%
Not Hispanic	82.6%	92.4%	85.3%	88.1%
Race/Ethnicity				
White	68.6%	80.0%	68.8%	74.7%
Black	9.9%	8.2%	10.9%	9.1%
Asian	5.2%	2.3%	4.8%	3.6%
American Indian/Alaska Native	3.4%	2.7%	3.2%	3.0%
Native Hawaiian or other Pacific Islander	0.9%	0.3%	1.6%	0.7%
(VOL) Hispanic	9.3%	3.6%	7.9%	6.1%
Other	0.7%	0.9%	0.9%	0.8%
Homeowner Status				
Own	52.0%	82.3%	47.2%	67.5%
Rent	38.9%	13.5%	29.5%	24.4%
Some other arrangement	7.8%	2.6%	21.7%	6.6%
Frequency of Driving				
Everyday	73.9%	69.4%	72.1%	71.3%
Almost everyday	11.7%	14.5%	12.8%	13.3%
Few days a week	10.2%	12.5%	10.6%	11.5%
Few days a month	2.8%	3.0%	3.5%	3.0%
Few days a year	1.3%	0.6%	1.0%	0.9%
Primary Type of Vehicle				
Car	56.3%	57.7%	60.1%	57.5%
Van/mini-van	8.1%	8.1%	9.2%	8.2%
SUV	14.9%	18.9%	17.4%	17.3%
Pickup truck	17.6%	13.9%	10.7%	14.9%
Other truck	2.2%	0.7%	1.0%	1.3%
Motorcycle	0.1%	0.3%	0.6%	0.3%
Other	0.5%	0.2%	0.4%	0.3%

For the remainder of this report, all percentages that appear in figures and tables are based on the weighted data unless otherwise noted.

In examining drivers' attitudes and self-reported distracted behaviors, it is useful to group drivers by their distracted driving tendencies. Rather than rely on any single indicator of general distracted driving or assumptions about appropriate categories of drivers, this study developed a typology of drivers using cluster analysis of responses to 10 questions about the frequency of distracted driving behaviors. Cluster analysis allowed the identification of discrete types of drivers based on the overall pattern of responses across all 10 distracted driving behavior questions.

Table 2-2 shows the 10 distracted driving questions used in the cluster analysis and the response distributions for each. Talking to passengers in the vehicle is the activity drivers most often engage in while driving with 49% reporting they always or almost always do so while driving. This was followed by adjusting the car radio (27%) and interacting with children in the back seat (15%). Activities in which drivers are the least likely to engage while driving include reading, with 96.3% of drivers saying they never do so, followed by personal grooming (80%), sending text messages or mails (79%), and reading e-mails or text messages (74%).

Table 2-2: Distracting Behavior Frequency (Used in Cluster Analysis)

How often do you…	N	Always	Almost Always	Sometimes	Rarely	Never
Q4a. Talk to other passengers in the vehicle	6,016	30.8%	17.8%	30.9%	14.1%	6.0%
Q4b. Eat or drink	6,016	5.0%	5.5%	36.5%	25.6%	27.4%
Q4c. Make or accept phone calls	6,016	6.3%	5.8%	27.5%	22.1%	38.2%
Q4d. Read, such as a book, newspaper, iPad or Kindle	6,016	0.4%	0.1%	0.8%	2.4%	96.3%
Q4e. Read e-mails or text messages	6,016	1.4%	1.8%	10.9%	11.8%	74.0%
Q4f. Send text messages or e-mails	6,016	1.0%	1.0%	8.3%	11.0%	78.7%
Q4g. Talk or interact with children in the back seat	6,016	9.0%	5.5%	21.0%	13.0%	51.2%
Q4h. Do personal grooming, such as put on make-up, shave, or look at yourself in the mirror	6,016	1.0%	0.8%	7.4%	10.7%	80.1%
Q4i. Adjust the car radio	6,016	15.8%	11.3%	41.3%	15.9%	15.6%
Q4j. Change CDs, DVDs, or tapes?	6,016	3.2%	2.2%	19.2%	19.0%	56.4%

Cluster analysis was able to classify 99% of respondents into one of two distinct groups based on their responses to the 10 questions. There were 59 respondents that could not be classified because some had answered "Don't know" or "Refused" to one or more distracted driving behavior questions or because their responses to these questions did not fit well with any of the clusters. The core characteristic of each of the two groups identified in the cluster analysis was determined by examining how each group scored on each distracted driving behavior variable. As can be seen in Table 2-3, one group was composed of drivers who consistently reported engaging in distracted driving behaviors and the other group was composed of drivers who reported distracted driving behaviors less often. The groups were named distraction-prone and distraction-averse, respectively, for the purposes of this report. Of those respondents categorized, 33% are distraction-prone drivers (N=1,989) and 67% are distraction-averse drivers (N=3,968).

Table 2-3: Distracted Driving Behaviors, by Driver Type

How often do you…	N[3]	Always	Almost Always	Sometimes	Rarely	Never
Talk to other passengers in the vehicle						
Distraction-prone drivers	1,989	51.2%	20.9%	20.3%	6.0%	1.6%
Distraction –averse drivers	3,968	19.5%	16.3%	37.1%	18.6%	8.5%
Eat or drink						
Distraction-prone drivers	1,989	9.5%	10.8%	49.6%	22.1%	8.1%
Distraction –averse drivers	3,968	2.6%	2.6%	29.3%	27.8%	37.8%
Make or accept phone calls						
Distraction-prone drivers	1,989	15.2%	13.7%	43.7%	21.5%	6.0%
Distraction –averse drivers	3,968	1.4%	1.4%	18.7%	22.5%	55.9%
Read, such as a book, newspaper, iPad, or Kindle						
Distraction-prone drivers	1,989	1.0%	0.3%	1.8%	5.8%	91.1%
Distraction –averse drivers	3,968	--	--	0.3%	0.5%	99.2%
Read e-mails or text messages						
Distraction-prone drivers	1,989	4.0%	5.1%	30.4%	30.9%	29.6%
Distraction –averse drivers	3,968	--	0.1%	0.2%	1.3%	98.4%
Send text messages or e-mails						
Distraction-prone drivers	1,989	2.8%	2.8%	23.3%	30.5%	40.5%
Distraction –averse drivers	3,968	--	--	--	0.2%	99.8%
Talk or interact with children in the back seat						
Distraction-prone drivers	1,989	19.3%	9.1%	21.7%	12.2%	37.7%
Distraction –averse drivers	3,968	3.4%	3.6%	20.8%	13.3%	58.8%
Do personal grooming, such as put on make-up, shave, or look at yourself in the mirror						
Distraction-prone drivers	1,989	2.2%	1.8%	14.0%	18.0%	63.9%
Distraction –averse drivers	3,968	0.3%	0.2%	3.8%	6.7%	88.9%

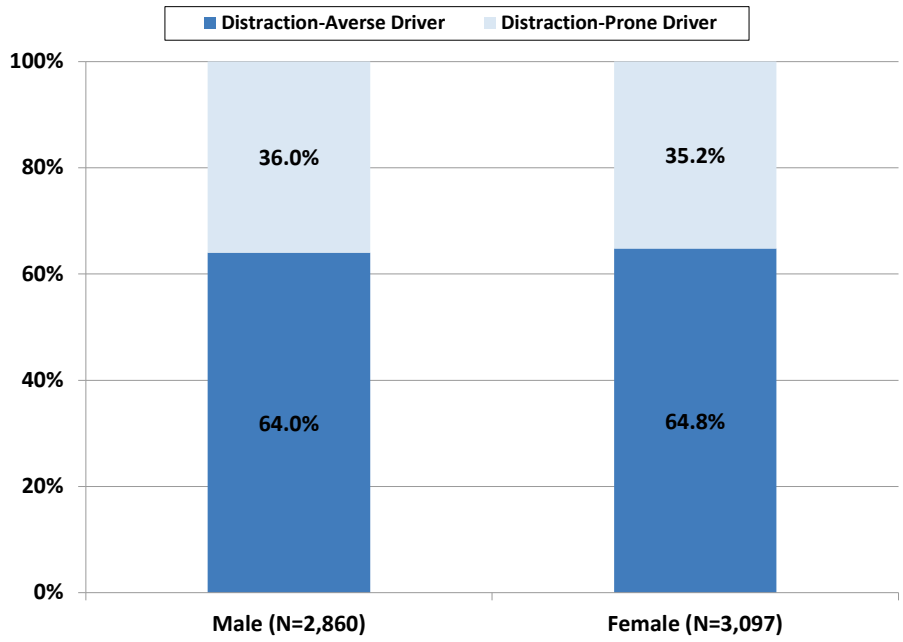
[3] The 59 respondents who answered "don't know" or "refused" to one of the distracted driving behavior questions or whose responses did not fit the cluster analysis are excluded from this chart.

Table 2-3: Distracted Driving Behaviors, by Driver Type (Continued)

How often do you…	N	Always	Almost Always	Sometimes	Rarely	Never
Adjust the car radio						
Distraction-prone drivers	1,989	36.6%	19.5%	32.8%	8.5%	2.6%
Distraction –averse drivers	3,968	4.4%	6.9%	46.3%	19.9%	22.5%
Change CDs, DVDs, or Tapes						
Distraction-prone drivers	1,989	8.3%	4.9%	23.6%	22.6%	40.5%
Distraction –averse drivers	3,968	0.3%	0.7%	16.8%	17.2%	65.0%

Examining driver type by gender shows no relationship between driver type and gender. Just over one-third of men (36%) and women (35%) are classified as distraction-prone drivers based on the cluster analysis.

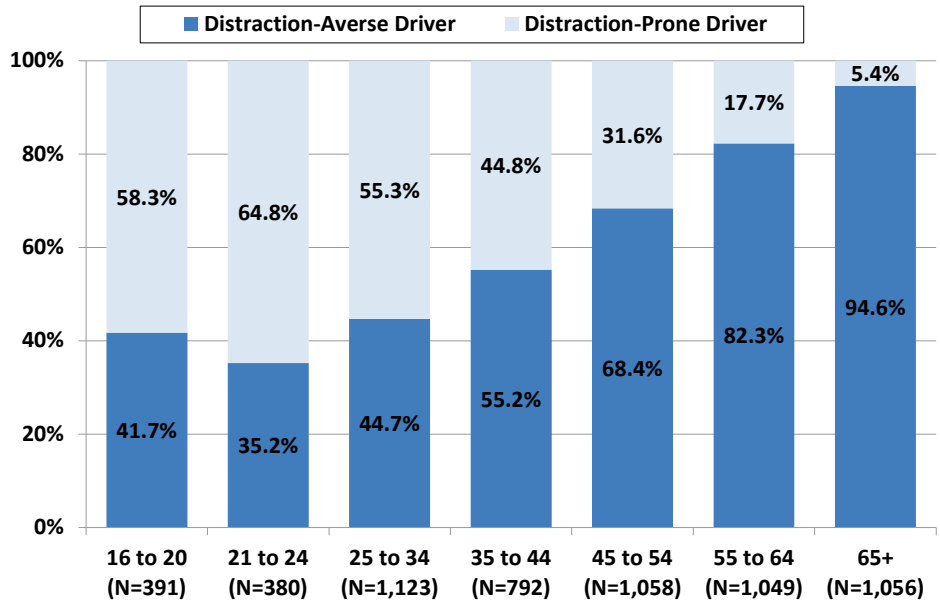
Figure 2-1: Driver Type, by Gender



Sa3. Record gender from observation. (Ask only if necessary.)
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 2-2 shows a clear age effect on distracted driving tendency. Distraction-averse drivers tend to be older while distraction-prone drivers are more likely to be younger. Less than half of drivers between 16 and 34 were categorized as distraction-averse, while more than half of drivers 35 and older were categorized as distraction-averse.

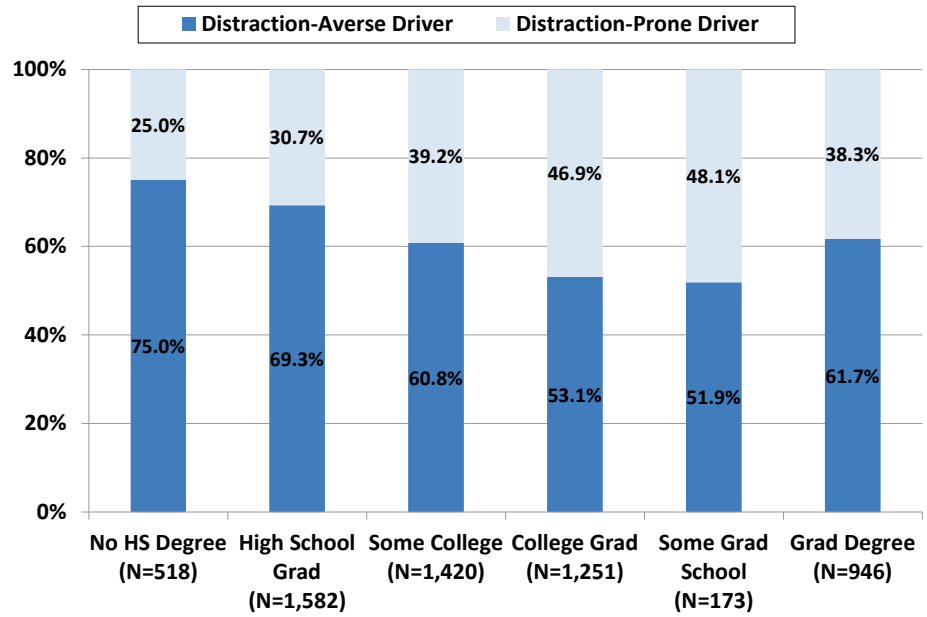
Figure 2-2: Driver Type, by Age



Q24. What is your age?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 2-3 examines the relationship between distracted driving tendency and the highest level of education completed. Respondents with some graduate school education and college graduates had the largest percentage of distraction-prone drivers (48% and 47%, respectively) compared to respondents without a high school degree (25%). Additionally, 47% of college graduates were categorized as distraction-prone drivers. Overall, drivers with a high school degree or less are more likely to be classified as distraction-averse while drivers with at least some college education are more likely to be classified as distraction-prone.

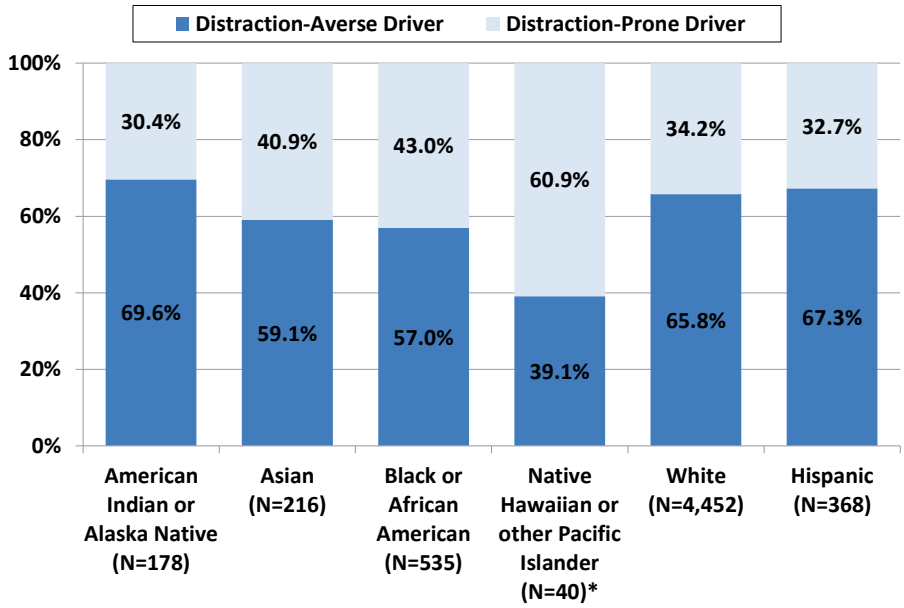
Figure 2-3: Driver Type by Highest Level of School Completed



Q24e. What is highest grade or year of regular school you have completed?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 2-4 shows that the tendency toward distracted driving behavior is relatively similar across most racial groups. The highest proportion of distraction-prone drivers was among Black/African-American respondents (43%), and the lowest was among American Indian and Alaska Native drivers. The percentage of distracted drivers was highest for Native Hawaiian or other Pacific Islander respondents (61%); however, due to the small number of respondents in this group (N=40), these results should not be interpreted too widely.

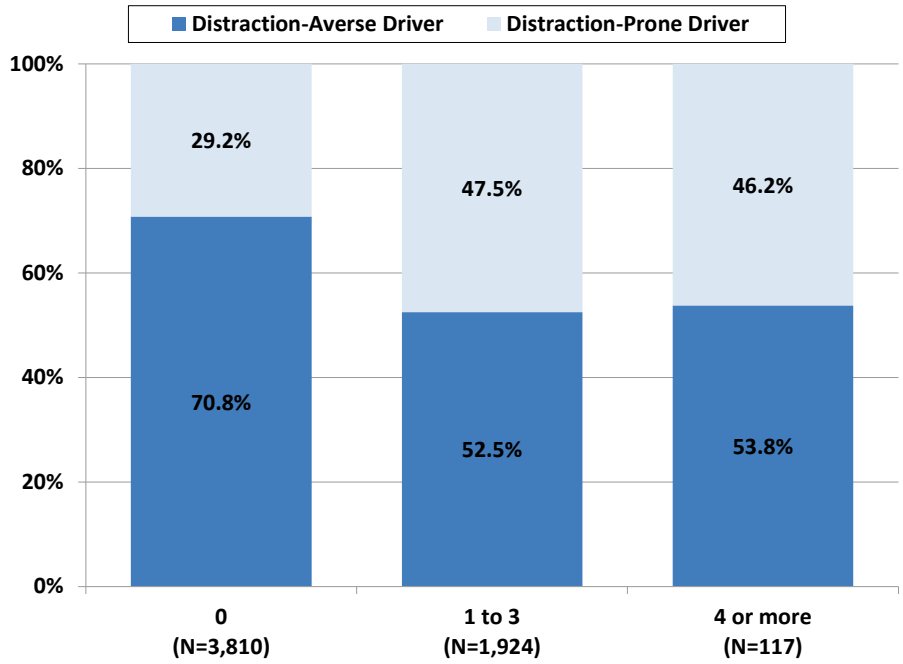
Figure 2-4: Driver Type, by Race



Q24d. Which of the following racial categories describe you? You may select more than one. [Multiple Record]
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart
*Sample size was less than 50.

Figure 2-5 shows that the presence of children 15 or younger in the household is related to distracted driving tendencies. Respondents without children under 16 in their household (71%) are more likely than respondents with children that age to be classified as distraction-averse drivers (53% and 54%). Because the presence of children under 16 is often correlated with age, the relationship between the number of children and age was examined. Respondents who were categorized as distraction-averse and have no children tend to be older than respondents who were categorized as distraction-prone and report having no children.

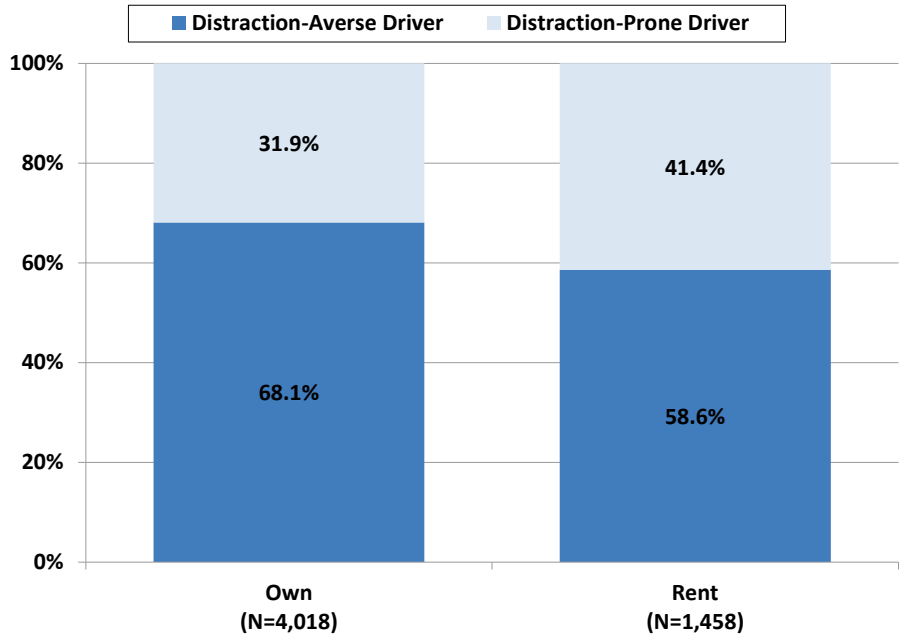
Figure 2-5: Driver Type, by Children 15 or Younger in Household



Q24b. How many children age 15 or younger are living in your household at least half of the time or consider it their primary residence?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

The relationship between homeownership and driver type was also explored. Homeowners were more likely to be categorized as distraction-averse drivers (68%) compared to those that rent (59%). Because this relationship reflects the age of the respondent, the relationship between age and homeownership was examined. Age of respondent and homeownership are correlated, with older respondents more likely to be homeowners than younger respondents. Homeowners that were classified as distraction-averse were more likely to be older than homeowners that were classified as distraction-prone, which supports the conclusion that homeowners tend to be distraction-averse because home-owners tend to be older than renters.

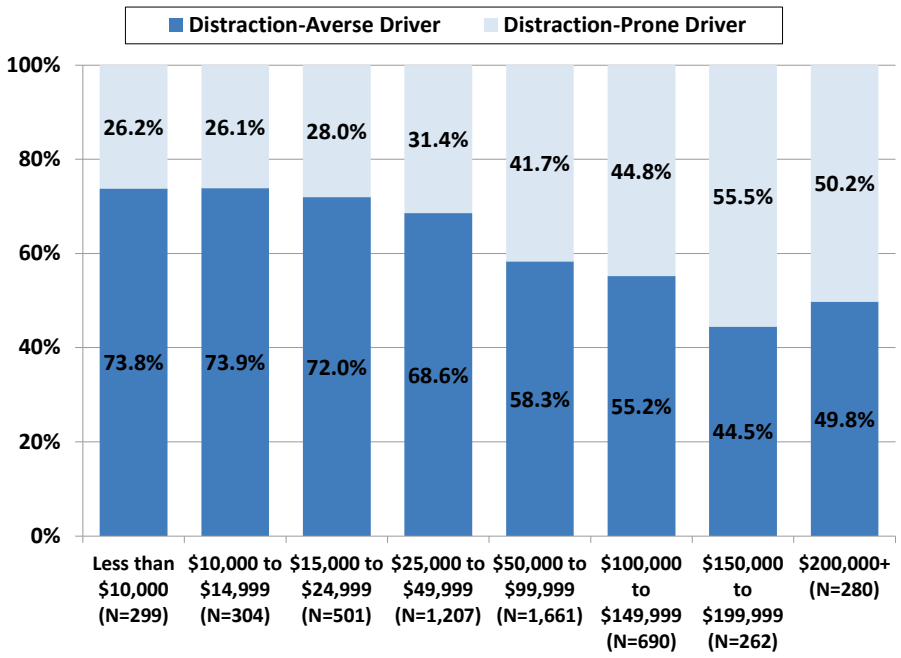
Figure 2-6: Driver Type, by Home Ownership



Q24e1. Do you own or rent your home?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 2-7 shows a clear pattern between income and distracted driving tendency. Overall, as annual household income increases, drivers were more likely to be classified as distraction prone. In the highest household income group ($200,000+), half of drivers were categorized as distraction-prone. In contrast, of those in the lowest household income group (<$10,000), only 26% were classified as distraction-prone. While income tends to increase with age, very young and very old respondents with high household incomes are an exception to this trend. Respondents younger than 20 were more likely to report household incomes over $150,000 a year than respondents in their early twenties, probably because they still live at home with parents who are older and thus have higher incomes. In addition, respondents over 55 were less likely to report household incomes over $150,000 a year than respondents in their 30s and 40s. As a result, respondents who live in households that have incomes of more than $150,000 a year tend to be younger than those who report a household income less than $150,000, which would account for the increase in distraction-prone drivers in this demographic group.

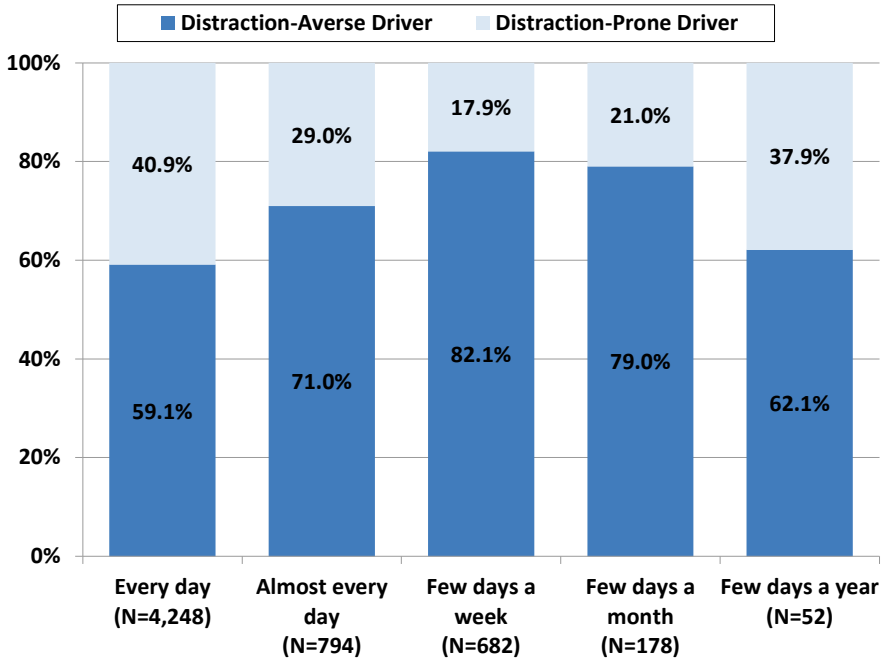
Figure 2-7: Driver Type, by Income



Q24j. What is your approximate household income? [Read List]
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 2-8 shows the tendency toward distracted driving by respondents' frequency of driving. The highest proportion of distraction-averse drivers is among respondents who drove a few days a week or a few days a month, with only about 1 in 5 respondents classified as a distraction-prone driver (18% and 21%, respectively). Among respondents who drove every day, 41% were classified as distraction-prone. Interestingly, 38% of the respondents who drove least often were classified as distraction-prone. This indicates that the frequency of one's driving is not directly related to one's distracted driving tendencies.

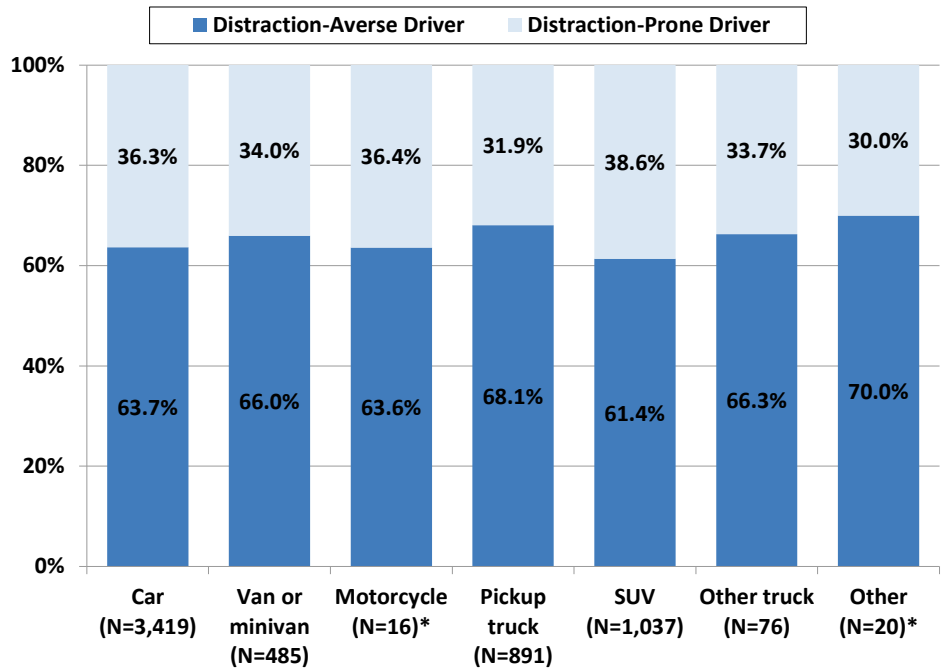
Figure 2-8: Driver Type, by How Often Do You Drive a Motor Vehicle



Q1. How often do you drive a motor vehicle, regardless of whether it is for work or for personal use? Every day, almost every day, a few days a week, a few days a month, a few days a year, or do you never drive?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 2-9 shows that there is no relationship between the tendency toward distracted driving and the type of vehicle most often driven. Approximately one-third of drivers with each vehicle type were classified as distraction-prone drivers. Respondents who drove SUVs were slightly more likely (39%) and those who drove "other" vehicles were slightly less likely (30%) to be classified as distraction-prone. Examples of "other" types of vehicles that respondents listed include "ambulance," "school bus," "golf cart," and "motorhome."

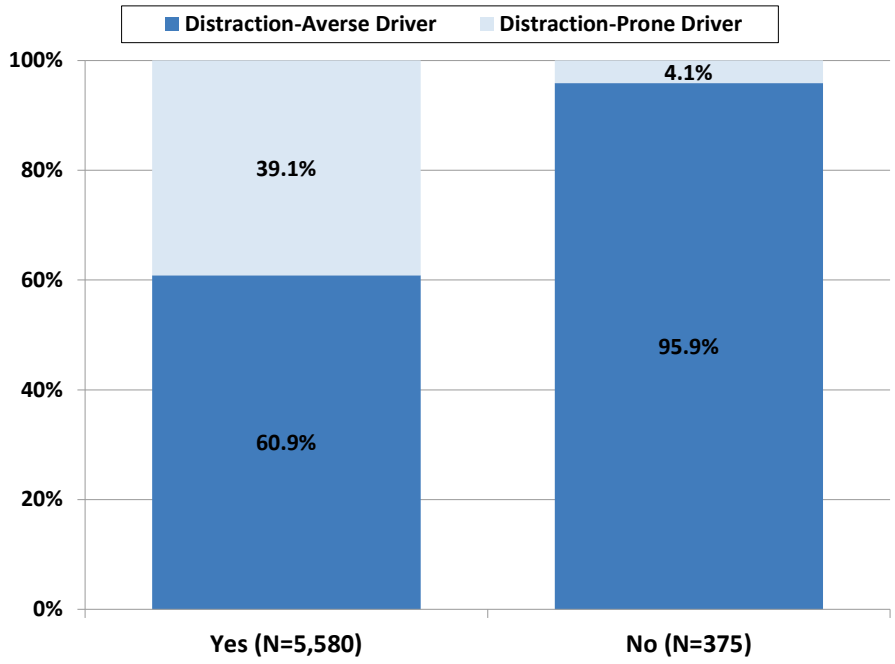
Figure 2-9: Driver Type, by Car Type



Q1a. Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart
*Sample size was less than 50.

Figure 2-10 shows those respondents who own a cell phone are much more likely to be classified as a distraction-prone driver (39%) compared to those who do not own a cell phone (4%). The majority of respondents owned a cell phone (N=5,580), so these results should be interpreted with this fact in mind. Those who do not own cell phones and rely solely on a landline tend to be older, so this is another relationship that is attenuated by the age of the respondent.

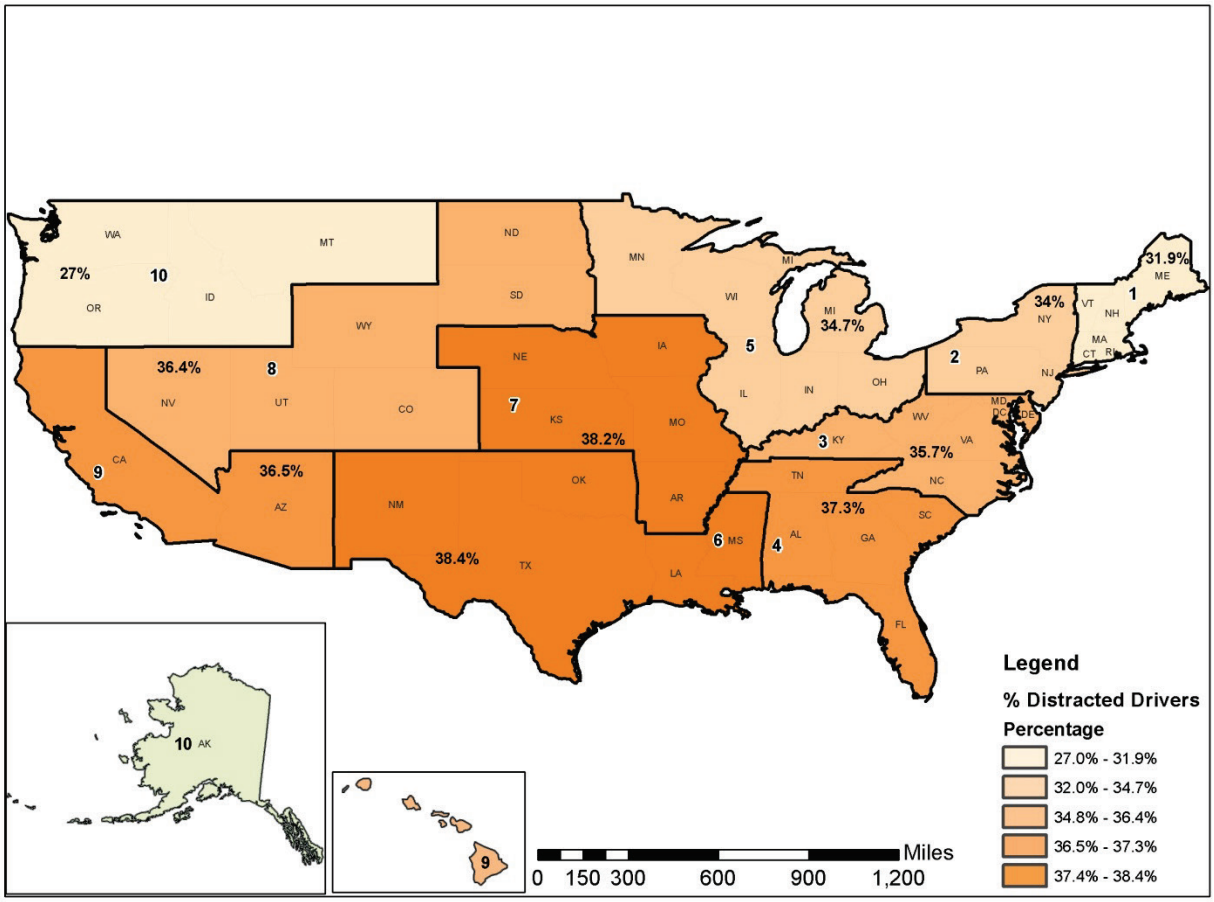
Figure 2-10: Driver Type, by Cell Phone Ownership



Q3a. Do you CURRENTLY own any of the following devices? A cell phone [Code 1 (Yes) if mentions any cell phone including a smartphone]
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

In Figure 2-11, the percentage of distraction-prone drivers by NHTSA region is shown. It is important to note that there is not a large difference in the proportion of distracted drivers between the NHTSA Regions. The lowest proportion of distraction-prone drivers is found in Region 10 (27.0%) while the highest proportions were found in Region 7 at 38.2% and Region 6 at 38.4%.

Figure 2-11. Proportion of Distraction-Prone Drivers, by NHTSA Region



CHAPTER 3
PHONE-RELATED DISTRACTED DRIVING

This chapter examines the use of cell phones for initiating and receiving calls and text messages, including the reasons respondents gave for engaging in this behavior. Table 3-1 shows the proportion of respondents who own devices that can distract drivers when operated while driving. Among these, ownership of cell phones is the highest at 91%[4]

Table 3-1. Ownership of Electronic Devices

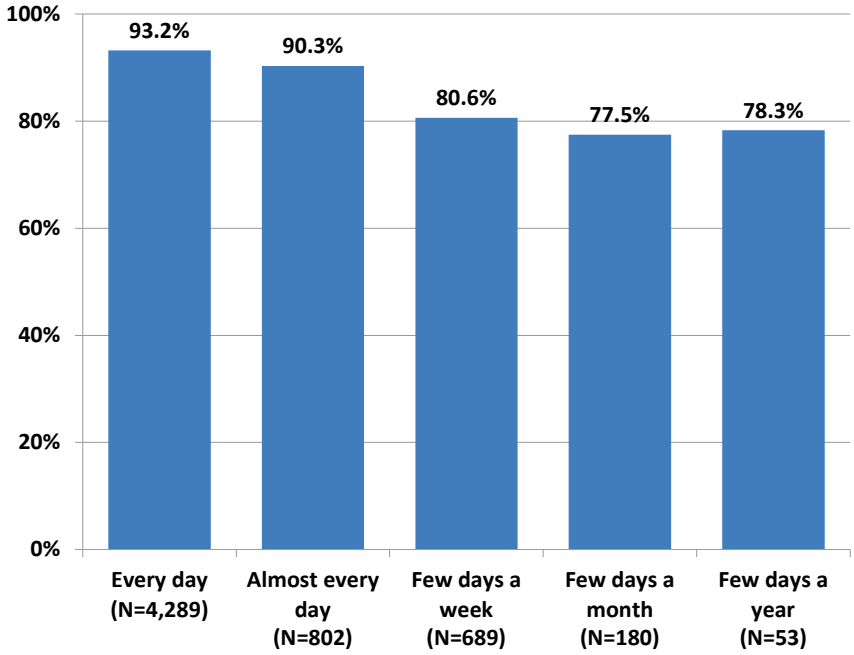
Q3. Do you currently own any of the following devices? [Multiple Record]	Percent Yes
A cell phone (Code Yes if mentions any cell phone including smartphone)	90%
A "smartphone" such as a Droid, iPhone, or Blackberry	44%
A pager or beeper	2%
A portable music play, such as a CD player, iPod, or Zune	46%
A portable navigation system, such as TomTom or Garmin	36%
A navigation system built into the vehicle, such as Onstar or Sync	16%
A laptop computer, iPad, Kindle, or Nook	59%
*A Bluetooth or other hands-free device for your cell phone, such as one that plugs into the phone, works wirelessly, or works through your vehicle's car stereo	38%

Unweighted N = 6,016
Base: All respondents
*Asked of respondents who reported owning a cell phone or smartphone.

[4] While only 90% of respondents reported that they own "a cell phone," that percentage increases to 91% when respondents who reported owning "a 'smartphone' such as a Droid, iPhone, or Blackberry" is included.

Figure 3-1 shows the proportion of respondents who own cell phones by their frequency of driving. Respondents who drove every day, or almost every day, are more likely to own cell phones than respondents who drove less frequently. Ownership of cell phones is 93% among those who drove every day, and 90% among those who drove almost every day. Among those who drove less frequently, cell phone ownership is just under 80%.

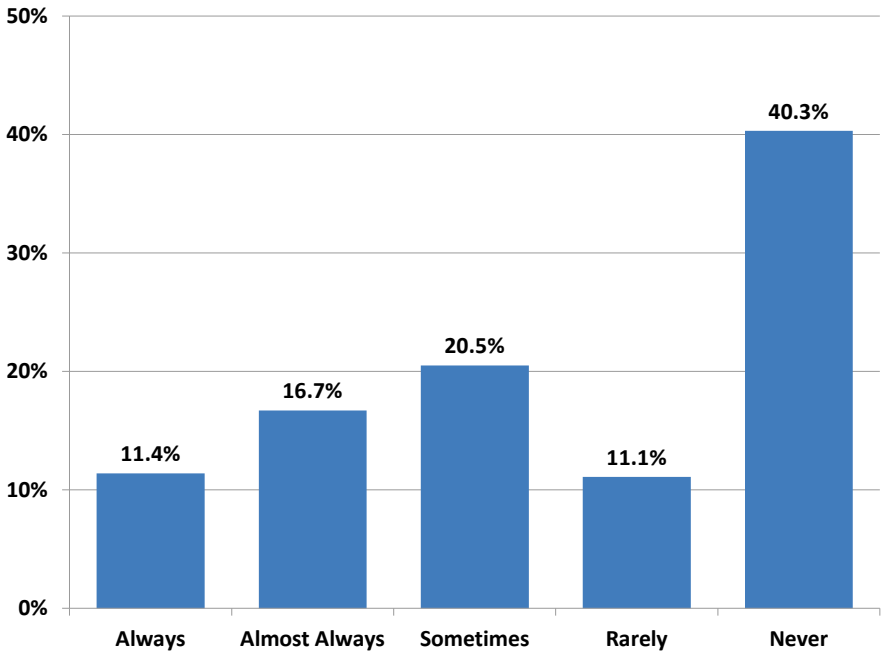
Figure 3-1: Cell Phone Ownership, by Frequency of Driving



Q1. How often do you drive a motor vehicle, regardless of whether it is for work or for personal use? Every day, almost every day, a few days a week, a few days a month, a few days a year, or do you never drive?
Q3. Do you CURRENTLY own any of the following devices? [Multiple Record]
Base: All Respondents
Unweighted N= See Chart

When asked how often they answer an incoming cell phone call when driving, 28% of respondents reported that they always or almost always answer the phone, and 21% reported that they sometimes answer an incoming call while driving. However, more than half of respondents said that they rarely (11%) or never (40%) answer the phone while driving. (Figure 3.2)

Figure 3-2: How Often Do Answer Your Phone When Driving



Q5a. When you RECEIVE a phone call while you are driving, how often do you ANSWER the call? [Read List]
Base: All Respondents
Unweighted N= 6,016

Table 3-2 lists the reasons why respondents are likely to answer an incoming call while driving. The most common reason given is the identity of the person calling (39%), followed by how important they think the call is (27%). More than 1 in 7 (15%) drivers are likely to answer the phone if it is work-related, while 10% state that they answer all calls received while driving. A Smaller percentage of drivers reported that they are likely to answer if the call is from someone they know (7%), the call is personal or social (7%), the call is routine or expected (3%), or it is an emergency situation (3%).

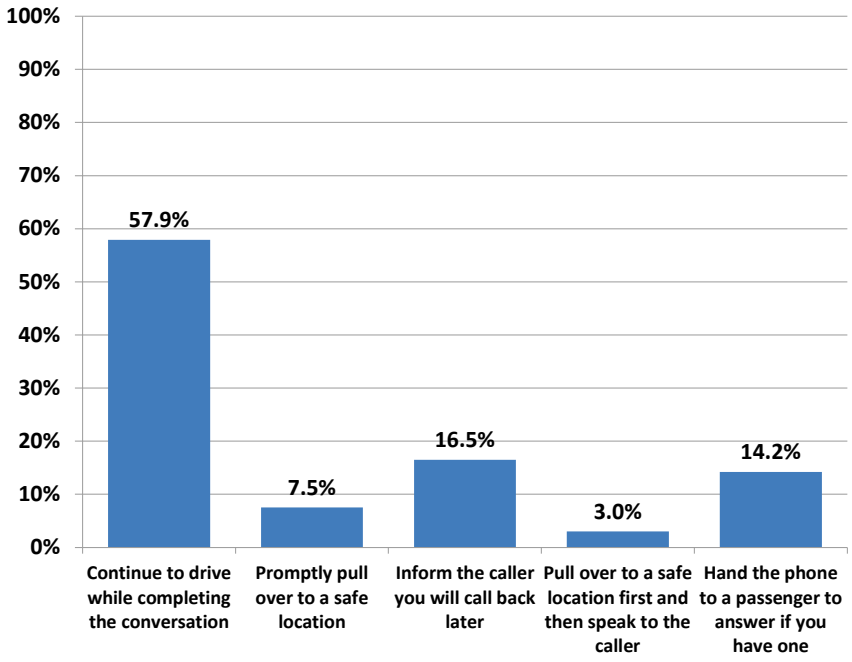
Table 3-2. Reasons for Answering Phone While Driving

Q5b.What are the reasons you are more likely to ANSWER a call while driving? [Multiple Record]	**Percent**
Who is calling	38.6%
How important I think the call is	27.2%
Call is work-related	15.2%
I answer all calls	10.0%
Call is from someone I know	7.2%
Call is personal or social	6.8%
Call is routine or expected	3.4%
Urgent/emergency situation	2.6%
Non-stressful traffic conditions	1.6%
Availability of the phone	1.4%
When Bluetooth/hands free technology available	1.2%
Call is unexpected	1.0%
In need of directions or other information	0.8%
Personal safety	0.7%
Boredom	0.4%
Traveling at a low speed	0.2%
Time of day	0.2%
Call is from a number I don't recognize	0.2%
Good weather conditions	0.1%
Tired (talking keeps me awake)	0.1%

Base: Answer phone call while driving at least rarely
Unweighted N = 3,847

More than half of respondents who reported answering an incoming phone call while driving stated that they usually continue to drive while completing the conversation (58%). Almost 1 in 5 (17%) drivers usually inform the caller they will call them back later, and 14% usually hand the phone to a passenger in the car. Fewer than 1 in 10 (8%) respondents state that they pull over to a safe location after answering the phone, while 3% report that they first pull over to a safe location and then answer the call.

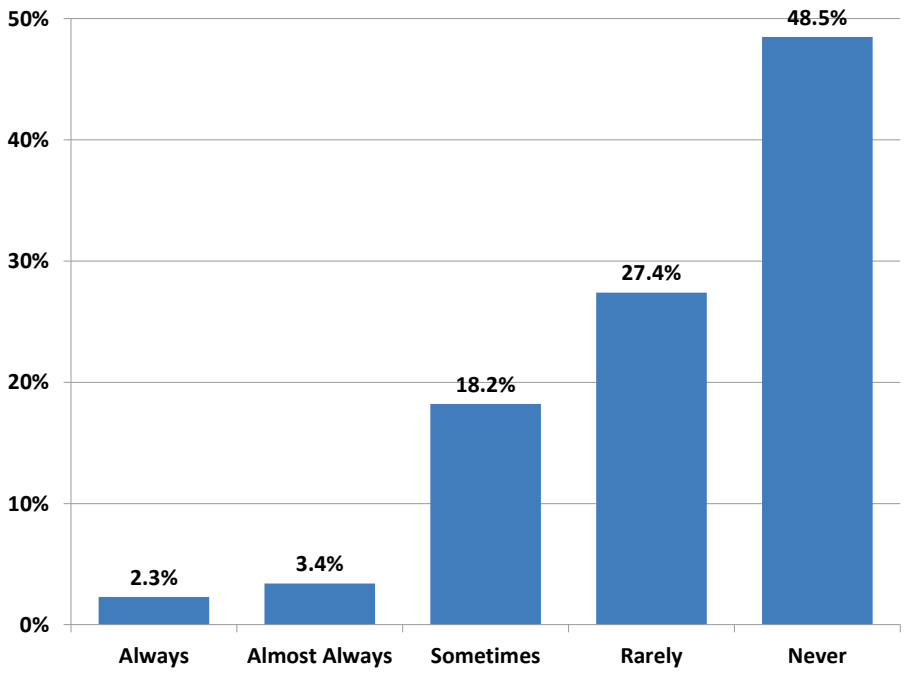
Figure 3-3: Behavior After Answering a Call While Driving



Q5c. When you answer a call while driving, do you USUALLY… [READ LIST]
Base: Respondents Who Answer the Phone While Driving
Unweighted N= 3,847

When asked how often they are willing to make a phone call while driving, 49% of drivers stated that they are never willing to make a phone call when driving. Few respondents stated that they are always (2.3%) or almost always (3.4%) willing to make a call while driving. While 18% indicated that they sometimes and 27% indicated that they rarely are willing to do so.

Figure 3-4: Willingness to Make Phone Calls When Driving



Q6a. When you are driving, how often are you willing to MAKE a phone call? [Read List]
Base: All Respondents
Unweighted N= 6,016

Table 3-3 shows the reasons respondents gave for making calls on their cell phone while driving. Almost half of respondents (45%) stated that they are willing to make phone calls if they think it is important or urgent, and 16% are willing to initiate a phone call if it is work related. More than 1 in 10 respondents stated that they are willing to make calls if they need directions or other information (13%), that it depends on who they are calling (13%), or if it's a personal or social call (11%). Other reasons for making calls while driving included reporting an emergency (5%) and boredom (2%).

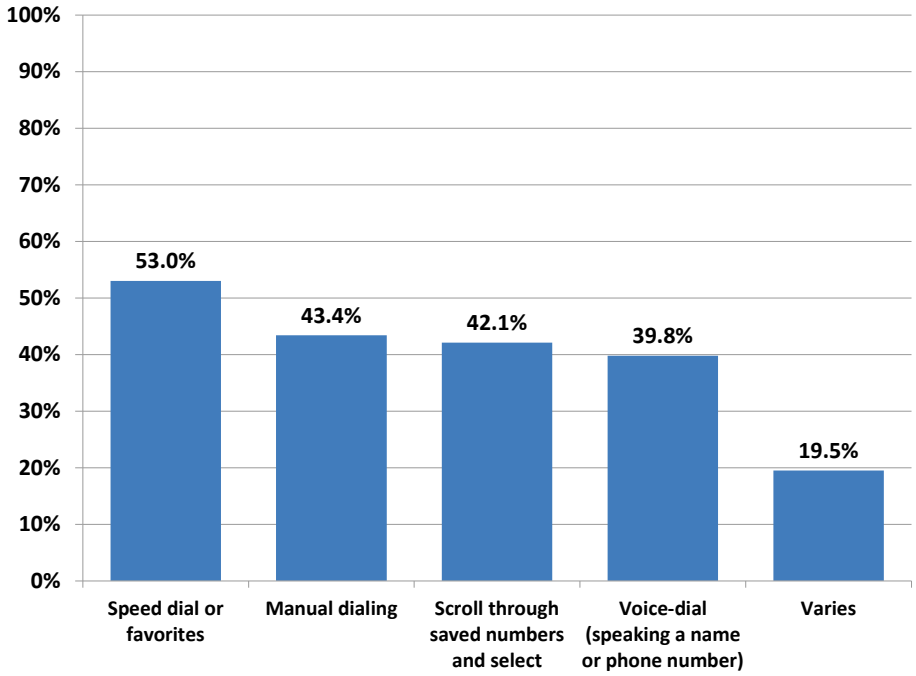
Table 3-3. Reasons For Making Calls While Driving

Q6b. What are the reasons you are more likely to MAKE a call while driving? [Multiple Record]	**Percent**
How important/urgent I think the call is	45.3%
Work-related	15.6%
If I need directions or other information	12.7%
Who I'm calling	12.7%
Personal or social	11.4%
Report a traffic crash/emergency	5.5%
Boredom	2.4%
Report a medical emergency	1.7%
Availability of the phone	1.2%
Personal Safety	1.0%
Non-stressful traffic conditions	0.9%
I think it's safe to call	0.5%
Time of day	0.3%
Traveling at a low speed	0.3%
Tired (talking keeps me awake)	0.2%
Good weather conditions	0.2%
No police officers in sight	0.1%
If state law permits	0.1%

Base: Make phone calling while driving at least rarely
Unweighted N = 3,324

When asked how they make a call while driving, 53% of respondents stated that they use the speed dial or the favorites feature on their cell phone. Over 2 in 5 respondents mentioned dialing manually (43%), 42% mentioned selecting the number by scrolling through saved numbers, and 40% mentioned using voice dialing by speaking the number or person's name into the microphone of the cell phone. One in 5 respondents (20%) said that the method varies.

Figure 3-5: Method of Dialing Phone Number While Driving



Q6c. Which of the following ways do you usually MAKE a call while driving? Please answer Yes or No after I read each item.
Base: Respondents Who Make Phone Calls Driving
Unweighted N= 3,324

Respondents were asked if their driving is any different when they are talking on a cell phone. Half (50%) of respondents stated that there is no difference in their driving Almost 1 in 5 respondents (18%) reported that they drove more slowly when they were on the phone and 17% reported that they are more distracted and not as aware if they were driving and talking on the phone. One out of 20 respondents (5.2%) believe they are more focused and pay more attention to the road if they are on the phone, while a small percentage noted that they may drift out of the lane or roadway (1.6%), or drive more erratically (0.4%) while on the phone.

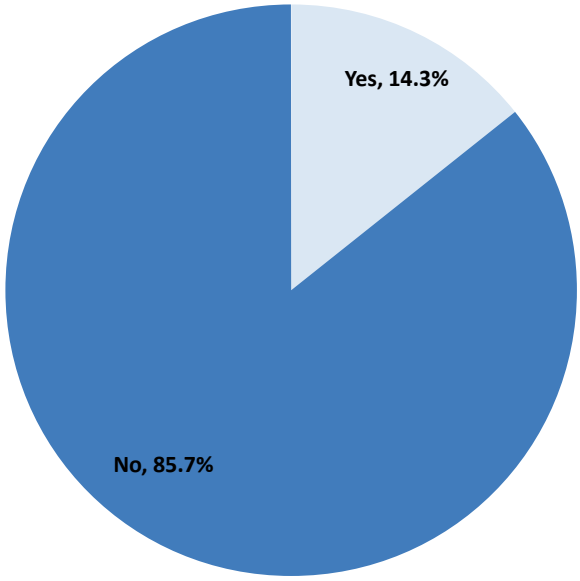
Table 3-4. Perceived Difference in Driving When Talking on a Cell Phone

7. How, if at all, would you say your driving is different when you are TALKING on the phone? [Multiple Record]	**Percent**
No difference	50.3%
Drive slower	17.9%
Distracted/not as aware of things	17.2%
More focused/pay more attention	5.2%
Drift out of the lane or roadway	1.6%
Never use cell phone with car is in motion	1.0%
Change lanes less frequently	0.9%
Avoid changing lanes altogether	0.9%
Drive faster	0.9%
Look in your rear or side view mirrors more frequently	0.5%
Apply the brakes suddenly	0.5%
Drive erratic/less careful	0.4%
Look in your rear or side view mirrors less frequently	0.4%
Follow lead vehicle more closely	0.2%
Increase distance from lead vehicle	0.1%
Change lanes more frequently	0.1%

Base: Answer a call at least rarely, or make a call at least rarely
Unweighted N = 3,887

Earlier in the survey, 21% of respondents answered that they sent text messages (either always, almost always, sometimes, or rarely – See Table 2-2, Q4f). These respondents were asked a follow-up question to confirm this behavior. More than two-thirds of respondents (67%) who had previously stated that they rarely, sometimes, almost always, or always sent texts or e-mails while driving confirmed this was the case by responding positively when asked if they had ever done so. Upon further examination, it appears that respondents who earlier in the survey stated that they rarely or sometimes send texts or e-mails while driving were less likely to state that they send texts or e-mails while driving when asked again. Thus, the overall percentage of all drivers who admit to sending text messages while driving is 14%.

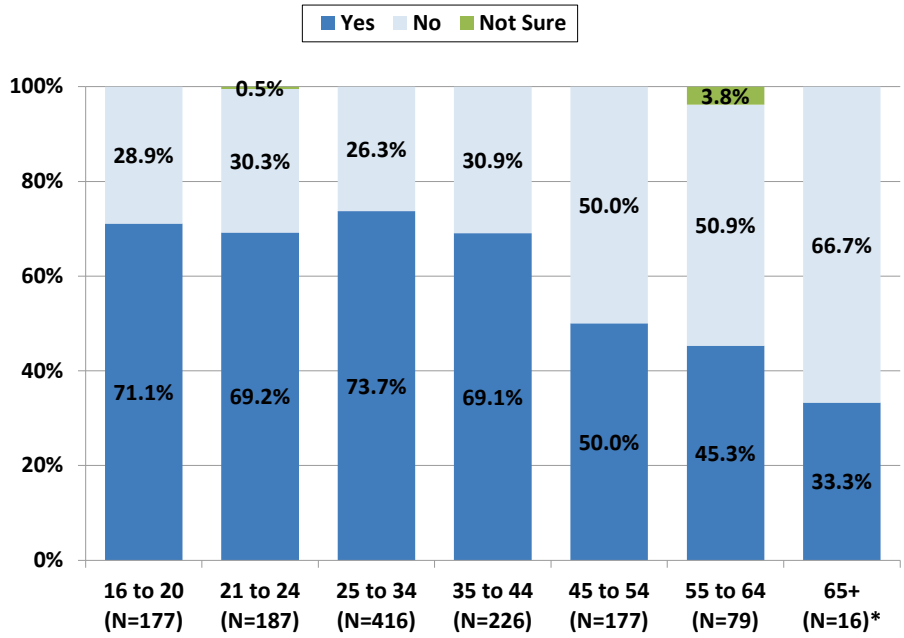
Figure 3-6: Confirmation - Do You Send Text Messages or E-mails While Driving



Q9. Do you ever SEND text messages or e-mails when you are driving?
Base: All respondents
Unweighted N= 6,016

Examining the confirmation question by age shows that younger drivers were more likely to confirm that they send messages while operating a vehicle. Around 7 in 10 respondents 16 to 20 (71%) confirm that they have sent messages while driving. More than two-thirds of respondents (69%) 35 to 44, and 50% of those in the 45-to-54 age group confirm that they send text messages. Among older drivers who initially stated that they had at least rarely sent a text message while driving, less than half (55 to 64 (45%) and 65 or older (33%)) confirm that they send messages while driving.

Figure 3-7: Confirmation of Text Messaging Behavior, by Age



Q9. Do you ever SEND text messages or e-mails when you are driving?
Q24. What is your age?
Base: Respondents Who Send Text Messages While Driving
Unweighted N= See Chart
*Sample size was less than 50.

Respondents who confirmed that they send texts or e-mails while driving were asked under what conditions they are more likely to do so (see Table 3-5). Almost half of these respondents (49%) report that they are more likely to send a message if it is important. Another 14% reported that it depends on who they are messaging and 12% are more likely to send a message if it is work-related. Another 1 in 10 (10%) are more likely to send a message if it is personal or social in nature, and 9% will do so if the message is a short reply. Respondents were less likely to cite reasons such as being in need of directions (2.4%), non-stressful traffic conditions (1.8%), or boredom (1.6%).

Table 3-5. Reasons for Sending Text Message or E-mail While Driving

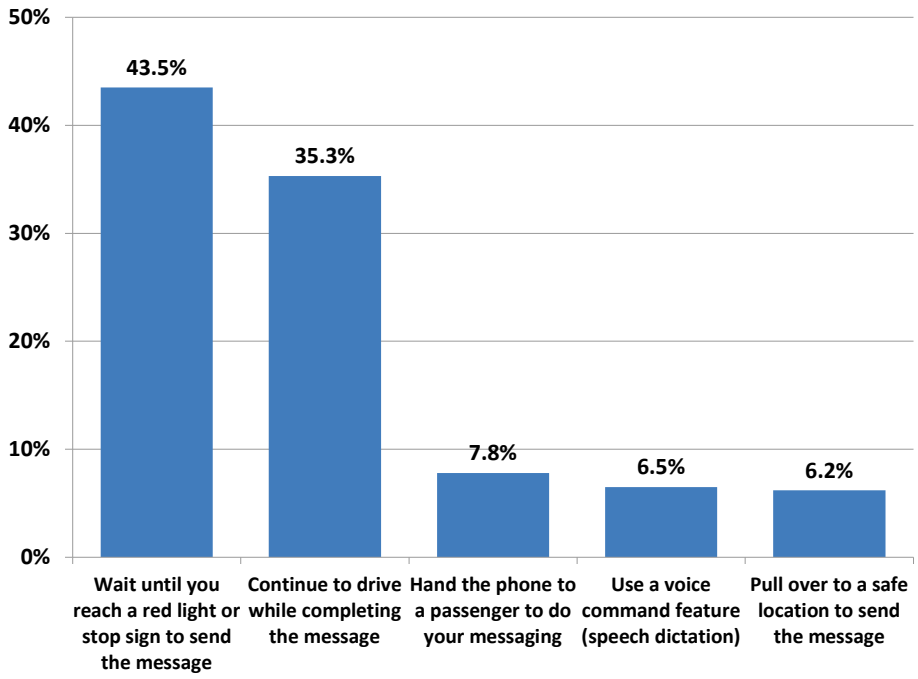
10a. What makes it more likely you will SEND a text message or e-mail while driving? [Multiple Record][5]	**Percent**
How important I think the message is	48.8%
Who I'm messaging	13.6%
Work-related	12.2%
Personal or social	10.0%
Making/responding to a quick/short message/call	9.1%
In need of directions or other information	2.4%
Non-stressful traffic conditions	1.8%
Boredom	1.6%
Time of day	0.9%
I think it's safe to call	0.9%
Personal Safety	0.8%
Report a traffic crash/emergency	0.7%
Report a medical emergency	0.6%
Traveling at a low speed	0.6%
Good weather conditions	0.3%
If state law permits	0.3%
If no police officers are in sight	0.3%

Base: Ever send text messages or e-mails while driving
Unweighted N = 872

[5] Respondents volunteered the answers to this question and were not read answer options.

When asked what they usually do when sending a message while driving, 44% reported that they wait until they are stopped at a red light or a stop sign to send the message. More than one-third of respondents (35%) stated that they continue to drive while composing and sending the message, while 8% hand the phone to a passenger and dictate the message. Slightly more than 1 in 20 (7%) respondents use a voice command feature or pull over to a safe location to compose and send the message (6%). Overall, 79% of respondents, who send text messages report that they are manually composing messages while on the roadways.

Figure 3-8: How Text Messages Are Sent While Driving



Q10. If you SEND a text message or e-mail while driving, do you USUALLY…[Read List]
Base: Respondents Who Send Text Messages While Driving
Unweighted N= 872

Respondents who sent messages while driving were asked how their driving was different when they were sending messages from their normal driving (Table 3-6). One-third of drivers (33%) claimed that there was no difference in their driving. About one-quarter (24%) said they were distracted and not as aware of things happening on the roadway, and 21% reported that they drive more slowly while messaging. More than 1 in 10 respondents (11%) reported that they drift out of the roadway or lane while messaging, while 3% claimed they are more focused and pay more attention to what is going on around them.

Table 3-6. Perceived Difference in Driving When Sending Text Messages

Q11. How would you say your driving is different when you are SENDING TEXT OR E-MAIL MESSAGES? [Multiple Record]	**Percent**
No difference	32.9%
Distracted/not as aware of things	24.3%
Drive slower	21.1%
Drift out of the lane or roadway	10.9%
More focused/pay more attention	2.7%
Drive erratic/less careful	2.1%
Never use cell phone with car is in motion	1.6%
Drive faster	1.0%
Avoid changing lanes altogether	0.9%
Change lanes more frequently	0.8%
Follow lead vehicle more closely	0.7%
Apply the brakes suddenly	0.6%
Change lanes less frequently	0.5%
Look in your rear or side view mirrors more frequently	0.5%
Look in your rear or side view mirrors less frequently	0.4%
Increase distance from lead vehicle	0.4%
Use turn signal less regularly	0.2%

Base: Ever send text messages while driving
Unweighted N = 872

CHAPTER 4
PERCEPTIONS OF SAFETY OF DISTRACTED DRIVING

This chapter examines the respondents' assessment of safety in a variety of situations in which they are passengers in vehicles operated by drivers who are engaged in other activities while driving. All respondents were asked how safe they would feel as a passenger if the driver were to engage in certain activities listed in Table 4-1. Almost all respondents stated that they would feel very unsafe if their driver was watching a movie (96%), using a laptop computer (95%) or reading (95%) while operating the vehicle. A large majority of respondents stated that they would feel very unsafe if the driver was sending (86%) or reading (85%) text messages or e-mails. More than 7 in 10 respondents (72%) said that they would feel very unsafe if the driver was doing personal grooming. About 3 in 5 respondents (63%) stated that they would feel very unsafe if the driver was wearing headphones and listening to music, and 42% said they would feel very unsafe if the driver was talking on the cell phone with the phone in hand. In addition, 34% of respondents would feel very unsafe if the driver was manipulating the navigation system for driving directions while driving.

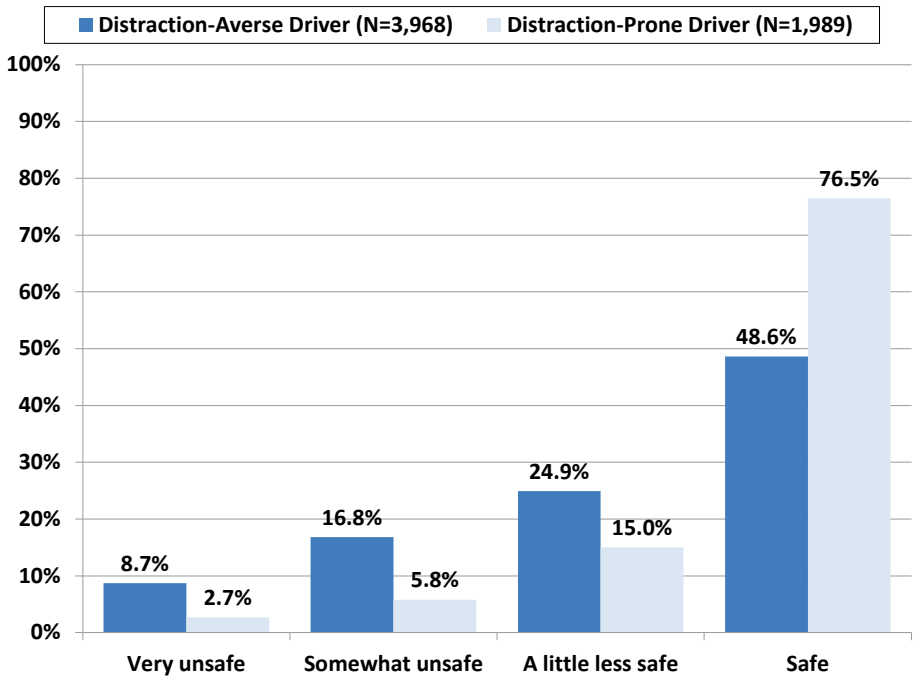
Table 4-1. Perceived Safety as a Passenger

Q14. How safe would you feel if the driver was to…	N	Very unsafe	Somewhat unsafe	A little less safe	Safe
Talk to other passengers in the vehicle	6,016	6.6%	12.9%	21.3%	58.5%
Eat or drink	6,016	18.5%	22.6%	33.4%	24.8%
Talking on a cell phone while holding the phone	6,016	41.8%	24.3%	23.1%	10.3%
Talking on a cell phone with a hands-free device	6,016	14.7%	19.7%	23.4%	41.4%
Read, such as a book, newspaper, iPad or Kindle?	6,016	94.7%	3.2%	1.5%	0.5%
Read e-mails or text messages	6,016	84.9%	10.3%	3.8%	0.8%
Send text messages or e-mails	6,016	85.9%	9.4%	3.7%	0.9%
Talk or interact with children in the back seat	6,016	22.7%	33.7%	23.8%	18.8%
Do personal grooming, such as put on make-up, shave, or look at yourself in the mirror	6,016	72.0%	18.4%	7.8%	1.6%
Adjust the car radio, tapes, or CD player	6,016	13.4%	31.9%	23.5%	30.6%
Singing along to a song on the radio	6,016	3.6%	11.6%	13.7%	70.5%
Using a laptop computer	6,016	94.8%	3.4%	1.3%	0.4%
Using a portable music player with headphones on	6,016	63.0%	22.4%	8.3%	5.7%
Manipulating a navigation system for driving directions	6,016	34.3%	37.1%	18.2%	9.2%
Watching a movie	6,016	96.4%	2.2%	1.0%	0.2%

Base: All respondents

Responses to the questions listed in Table 4-1 were examined by driver type to assess if an individual's perceptions of safety while a passenger were related to his/her behavioral tendencies toward distracted driving. When certain behaviors are broken out by driver type, distraction-prone drivers tend to be less likely to feel unsafe as a passenger when the driver engages in distracted behaviors. Figure 4-1 shows the perceptions of safety by driver type of respondents who are passengers in a vehicle in which the driver is talking to other passengers while driving. Slightly less than half of respondents classified as distraction-averse drivers (49%) compared to 77% of respondents classified as distraction-prone drivers stated that they would feel safe if the driver was conversing with others in the car while driving. More than one-quarter of respondents classified as distraction-averse drivers (26%) compared to 9% of respondents classified as distraction-prone reported they would feel at least somewhat unsafe.

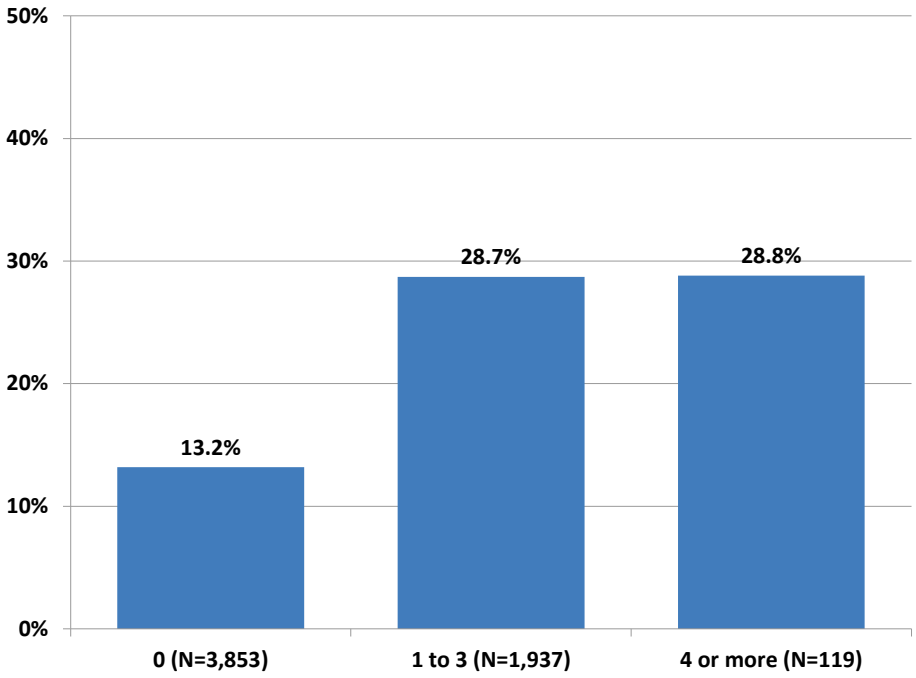
Figure 4-1: Perception of Safety, by Driver Type: Driver Is Talking to Other Passengers



Q14-a. Now I'm going to read a list of things people sometimes do while driving. Tell me how safe you would feel if you were a passenger riding in a car while your driver was doing the following. For each please tell me if you would feel very unsafe, somewhat unsafe, a little less safe, or safe – no problem – would not pay any more attention. a. Talking to other passengers in the vehicle.
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 4-2 shows that respondents who have children under 16 in the household are more likely than those without children of that age in the household to feel safe in a car when the driver is interacting with children in the backseat. Among respondents with children under 16, 29% indicated that they would feel safe. Among those without any children under 16 in the household, only 13% indicated they would feel safe in a car if the driver was interacting with children in the back seat.

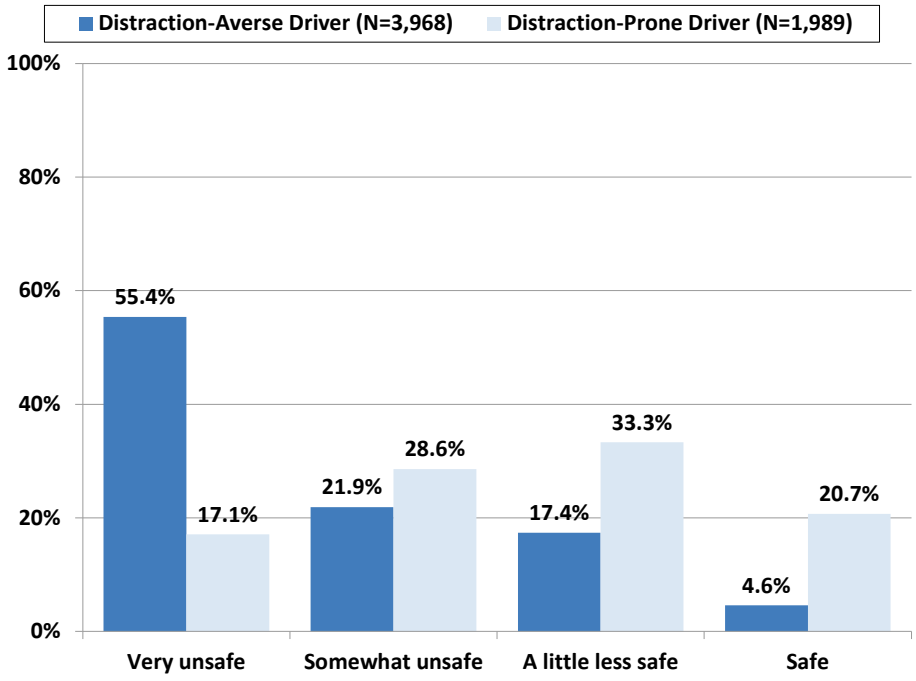
Figure 4-2 Respondents Who Feel Safe When Driver Is Talking to Children in the Backseat, by Number of Children in the Household



Q14-h. Now I'm going to read a list of things people sometimes do while driving. Tell me how safe you would feel if you were a passenger riding in a car while your driver was doing the following. For each please tell me if you would feel very unsafe, somewhat unsafe, a little less safe, or safe – no problem – would not pay any more attention. h. Talking or interacting with children in the back seat
Base: All Respondents
Unweighted N= See Chart

Figure 4-3 compares the perceptions about safety of distraction-averse and distraction-prone people when the driver is talking on a cell phone while holding the phone. Overall, distraction-averse people were much more likely to feel very unsafe than the distraction-prone people. Just over half of people classified as distraction-averse drivers (55%) reported that they would feel very unsafe in this situation, while only 17% of people classified as distraction-prone stated they would feel very unsafe. Conversely, 21% of distraction-prone people and only 5% of distraction-averse people said they would feel safe if the driver was talking on the phone while holding it in hand.

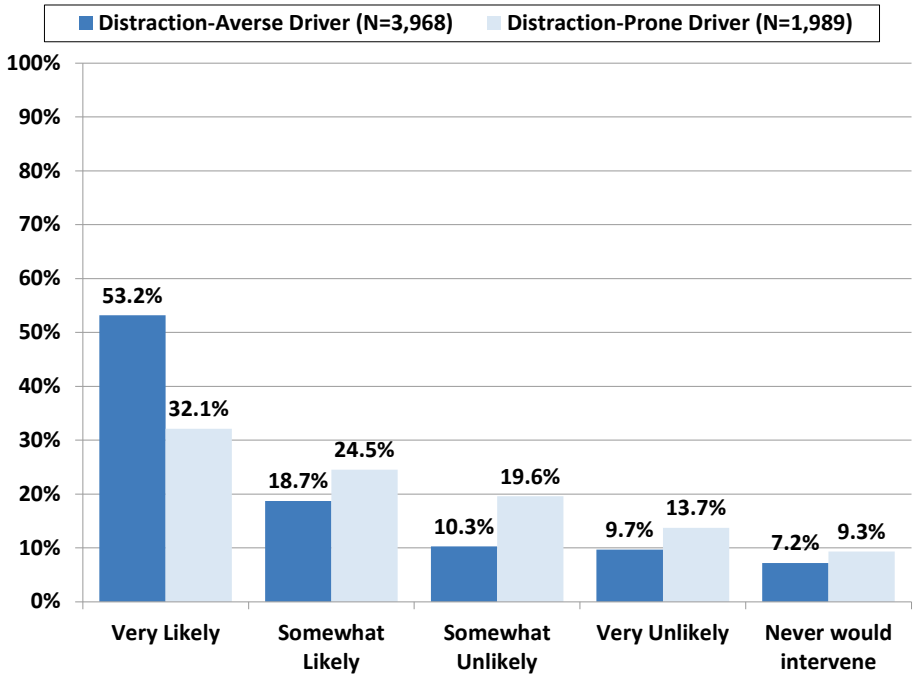
Figure 4-3: Perception of Safety, by Driver Type: Driver Is Talking on Cell Phone While Holding Phone



Q14-c. Now I'm going to read a list of things people sometimes do while driving. Tell me how safe you would feel if you were a passenger riding in a car while your driver was doing the following. For each please tell me if you would feel very unsafe, somewhat unsafe, a little less safe, or safe – no problem – would not pay any more attention. c. Talking on a cell phone while holding the phone.
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Respondents were asked how likely they were to intervene if they were passengers in a vehicle in which the driver was talking on a cell phone while holding the phone and driving. Overall, 66% of all respondents reported that they were at least somewhat likely to intervene. People classified as distraction-prone drivers were less likely than those classified as distraction-averse to report that they would intervene if the driver was talking on a phone while driving. While 53% of distraction-averse drivers are very likely to intervene, 32% of distraction-prone drivers said that they would do so. Almost one-quarter of distraction-prone drivers (23%) and 17% of distraction-averse drivers said they were very unlikely or would never intervene.

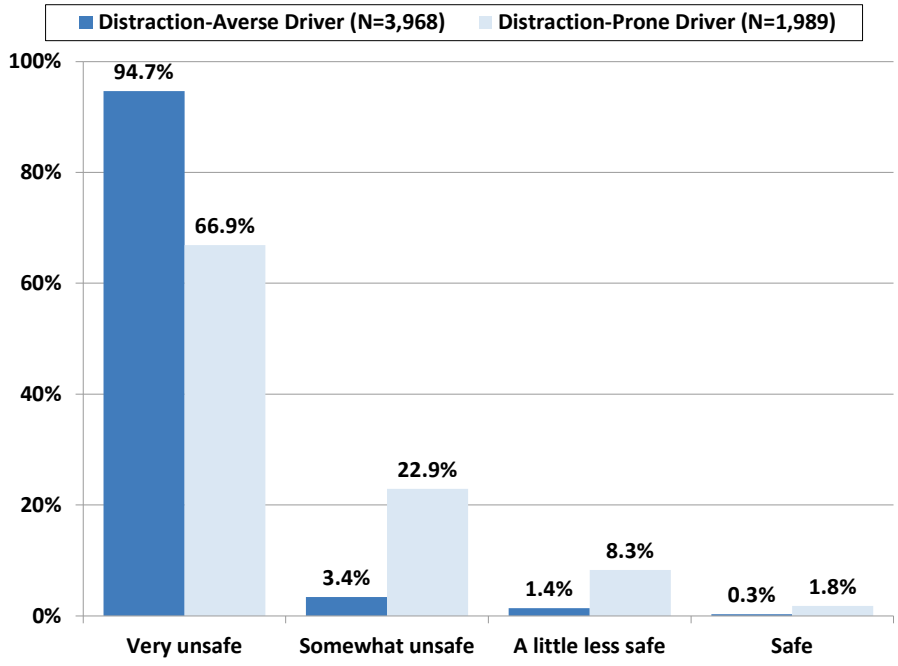
Figure 4-4: How Likely Are You to Intervene if the Driver Is Talking on a Cell Phone While Holding the Phone, by Driver Type



Q14b. How likely are you to do or say something to your driver if they're TALKING on a hand-held cell phone while driving? [Read List]
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 4-5 compares the perception about safety of distraction-prone and distraction-averse people in a situation where their driver is reading e-mails or text messages while driving. Distraction-averse people perceived this situation as more unsafe than distraction-prone people. Almost all those people classified as distraction-averse drivers (95%) reported they would feel very unsafe compared to 67% of people who were classified as distraction-prone drivers. While only 2% of distraction-prone people indicated that they would feel safe in this situation, 31% indicated that they would feel somewhat unsafe or a little less safe in this situation.

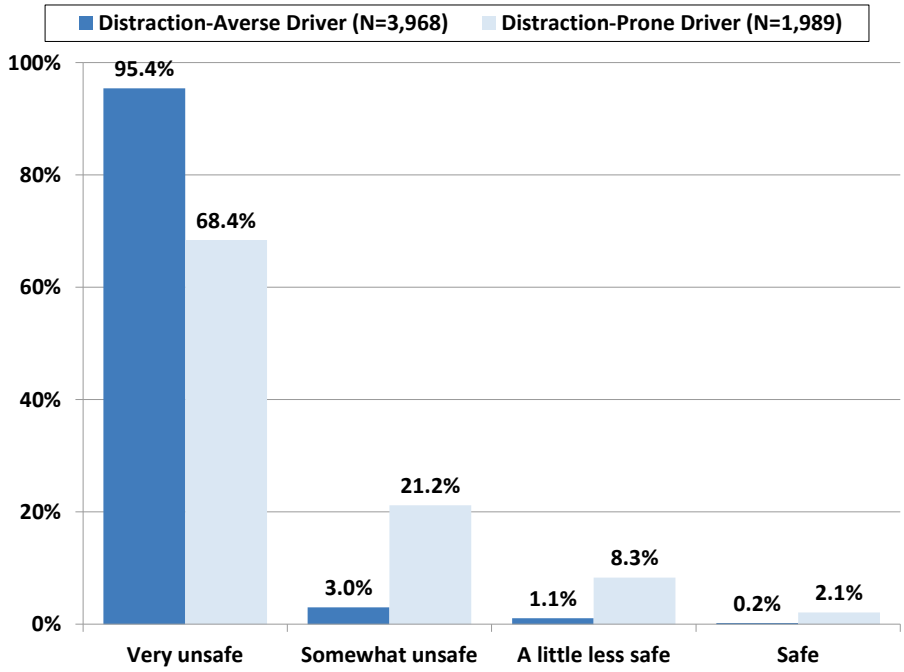
Figure 4-5: Perception of Safety by Driver Type: Driver Is Reading E-mails or Text Messages



Q14-f. Now I'm going to read a list of things people sometimes do while driving. Tell me how safe you would feel if you were a passenger riding in a car while your driver was doing the following. For each please tell me if you would feel very unsafe, somewhat unsafe, a little less safe, or safe – no problem – would not pay any more attention. f. Reading e-mails or text messages.
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Figure 4-6 compares the perceptions about safety of distraction-prone and distraction-averse people for the situation where they are passengers in vehicles with drivers who are also sending text messages or e-mails while driving. The overwhelming majority of distraction-averse people (95%) and 68% of distraction-prone people reported that they would feel very unsafe if the driver was engaged in this behavior while driving. Just under one-third (29%) of people classified as distraction-prone drivers reported that they would feel somewhat unsafe or a little less safe in this situation. No distraction-averse people and only 2.1% of distraction-prone people indicated that they would feel safe if the driver was sending e-mails or text messages while driving. Overall, the degree to which respondents reported feeling safe if a driver was sending electronic messages was very similar to their perceptions about safety if the driver was reading messages while driving.

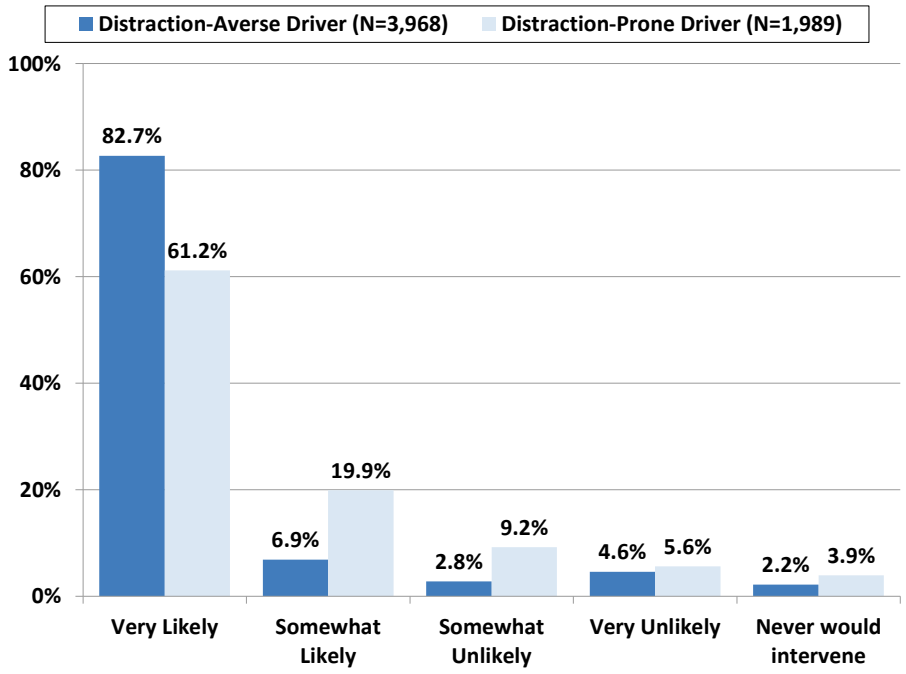
Figure 4-6: Perceptions of Safety by Driver Type: Driver Is Sending Text Messages or E-mails



Q14-g. Now I'm going to read a list of things people sometimes do while driving. Tell me how safe you would feel if you were a passenger riding in a car while your driver was doing the following. For each please tell me if you would feel very unsafe, somewhat unsafe, a little less safe, or safe – no problem – would not pay any more attention. g. Sending text messages or e-mails.
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Overall, 87% of respondents stated that they were at least somewhat likely to intervene if they were passengers in a vehicle when a driver was sending e-mails or text messages. Figure 4-7 shows the likelihood of intervention by people classified as distraction-prone and distraction-averse if they are passengers in a vehicle in which the driver is sending e-mails or text messages while driving. Overall, the majority of distraction-averse and distraction-prone drivers were very likely to intervene. More than 8 in 10 (83%) distraction-averse and 6 in 10 (61%) distraction-prone drivers would be very likely to intervene. Very few respondents indicated that they were never likely to intervene. The percentage of the non-interveners was 4% for those classified as distraction-prone drivers, and 2% for those classified as distraction-averse.

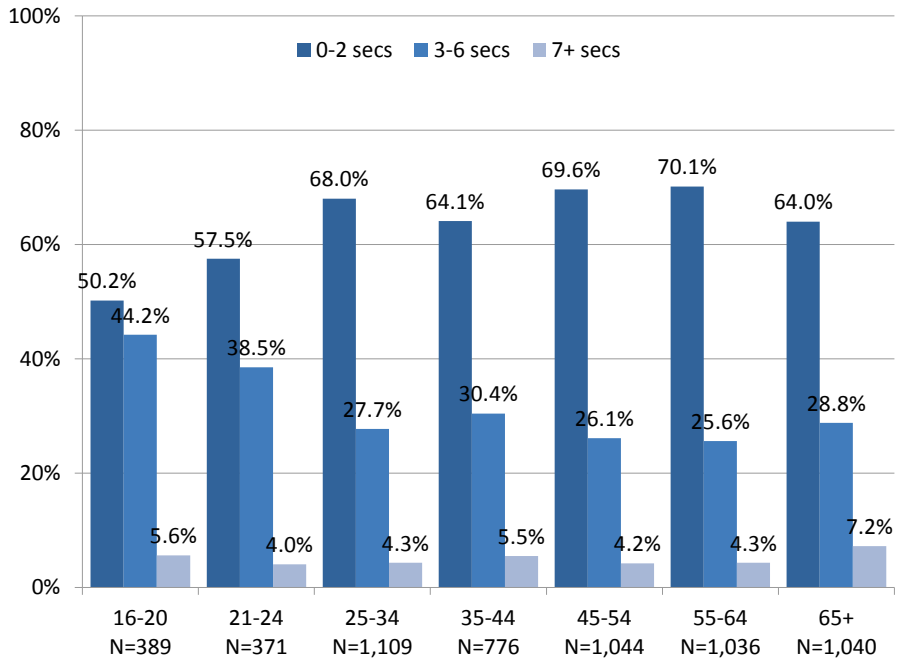
Figure 4-7: How Likely Are You to Intervene if Driver Is Sending E-mails or Text Messages, by Driver Type



Q14c. How likely are you to do or say something to your driver if they're SENDING TEXT MESSAGES OR E-MAILS while driving? [Read List]
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Respondents were asked how many seconds they believe a driver can take his eyes off the road before it becomes significantly more dangerous. The majority of respondents across all age groups gave an answer between 0 and 2 seconds. Younger respondents were more likely than older respondents to give an answer between 3 and 6 seconds, with 44% of respondents 16 to 20 giving an answer between 3 and 6 seconds while only 29% of respondents 65 and older did so.

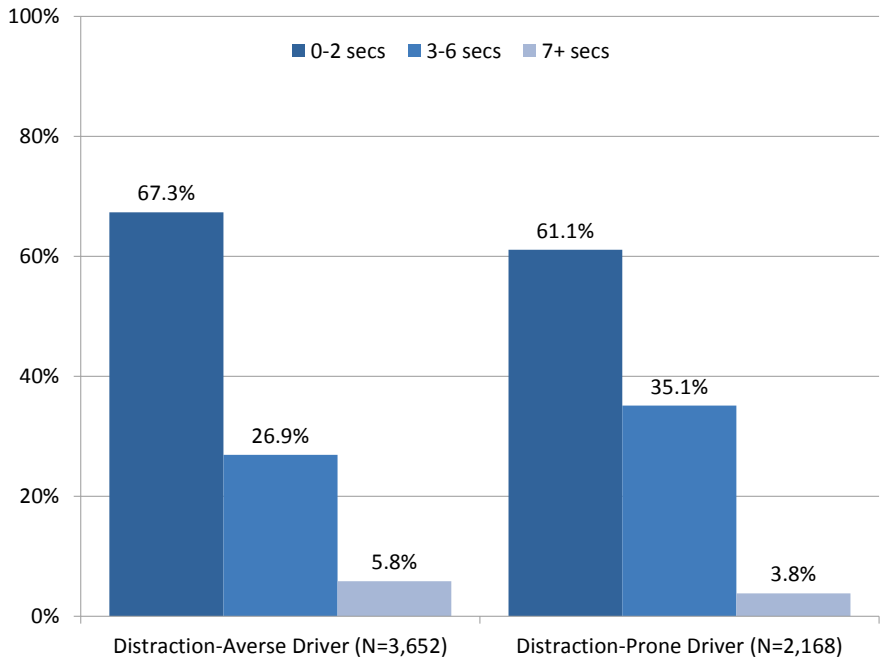
Figure 4-8: Number of Seconds a Driver Can Safely Take His Eyes Off the Road, by Age



Q13. How many seconds do you believe a driver can take his eyes off the road before driving becomes significantly more dangerous?
Base: All Respondents
Unweighted N= See Chart

Figure 4-9 compares the number of seconds a respondent believes drivers can safely take their eyes of the road by driver type. While a majority of both distraction-averse and distraction-prone drivers provided an answer that was between 0 and 2 seconds, 35% of distraction-prone drivers gave an answer of 3 to 6 seconds, while only 27% of distraction-averse drivers did so.

Figure 4-9: Number of Seconds a Driver Can Safely Take His Eyes Off the Road By Driver Type

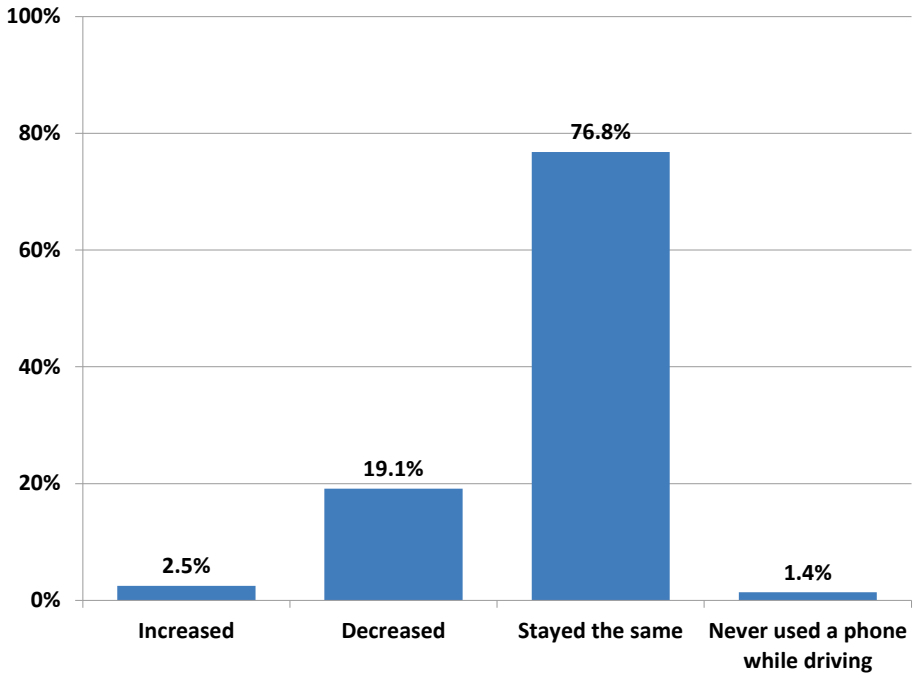


Q13. How many seconds do you believe a driver can take his eyes off the road before driving becomes significantly more dangerous?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

CHAPTER 5
CHANGES IN CELL PHONE RELATED DISTRACTED DRIVING

To assess whether drivers' cell phone-related distracted driving behavior is changing, respondents were asked if the frequency with which they make or receive calls, or send text messages or e-mails while driving, has changed in the past 30 days. Most respondents reported that the frequency with which they make and receive calls while driving has stayed the same, but some respondents did report a decrease. More than three-quarters of respondents (77%) stated that the frequency with which they make or receive calls is the same now as it was in the past 30 days. Fewer than 1 in 20 respondents (3%) said that they are making or receiving calls more often, while 19% said they are making calls less often.

Figure 5-1: Has Your Frequency of Making and Receiving Phone Calls While Driving Increased, Decreased, or Stayed the Same



Q15. In the past 30 days, has your frequency of making and receiving phone calls while driving increased, decreased, or stayed the same?
Base: Respondents That Make or Accept Phone Calls While Driving
Unweighted N= 3,968

Table 5-1 lists the reasons for the decrease in making and receiving phone calls while driving given by respondents who reported a decrease in phone calls while driving in the past 30 days. Overall, the most frequent reason given was an increased awareness of safety, with 24% providing this as their reason for the decrease in the past 30 days. About 1 in 6 (17%) said they were not receiving as many calls and 16% said that they do not make calls while driving. Almost 1 in 10 (8%) reported the reason as driving less often, while 6% cited laws that ban cell phone usage and 6% said they were getting fewer work-related calls. Fewer than 1 in 20 respondents reported that the change was due to influence or pressure from others (3.0%), a relationship change (2.9%), not wanting to receive a ticket (2.4%), the weather (2.4%), problems with their phone (2.2%), or having family in the car (1.5%).

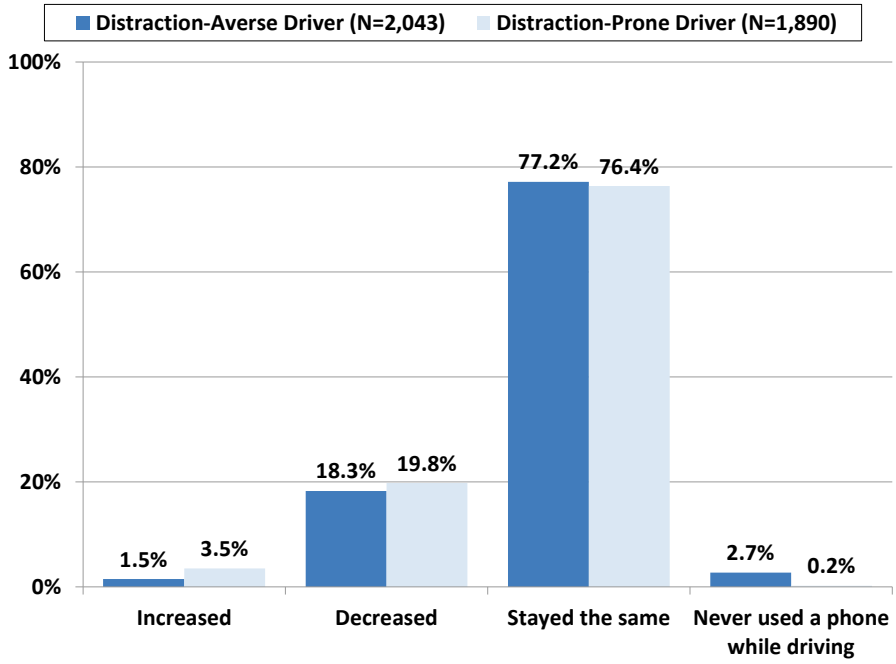
Table 5-1. Reasons for Decrease in Making and Receiving Phone Calls While Driving

15a. What caused your frequency of making and receiving phone calls while driving to decrease? [Multiple Record]	**Percent**
Increased awareness of safety	24.3%
Less use/busy/less people call/text/have number	16.7%
Don't make/take calls/text while driving	15.7%
Driving less/not on the road as much	8.4%
Law that bans cell phone use	6.0%
Job-related (work less/lost job/don't get as many work calls)	5.5%
Influence/pressure from others	3.0%
Less use due to family/relationship changes	2.9%
Don't want to get a ticket	2.4%
The weather	2.4%
Phone issues (all mentions)	2.2%
Family/children in the car	1.5%
Nothing/no specific reason	0.9%
More long distance driving	0.5%
Was in a crash	0.1%
Other (specify)	4.3%
Not sure	7.0%

Base: Respondents whose frequency of using phone in vehicle decreased
Unweighted N = 735

Figure 5-2 shows the frequency with which respondents reported making and receiving phone calls while driving by driver type. Regardless of driver type, most respondents report no changes in the frequency with which they make calls. Fewer than 1 in 20 distraction-averse drivers (2%) as well as distraction-prone drivers (4%) stated that the frequency of making and receiving phone calls increased in the past 30 days, while 18% of distraction-averse drivers and 20% of distraction-prone drivers stated that they are making calls less often. More than three-quarters of distraction-averse drivers (77%) and distraction-prone drivers (76%) reported that the frequency with which they make calls remained the same.

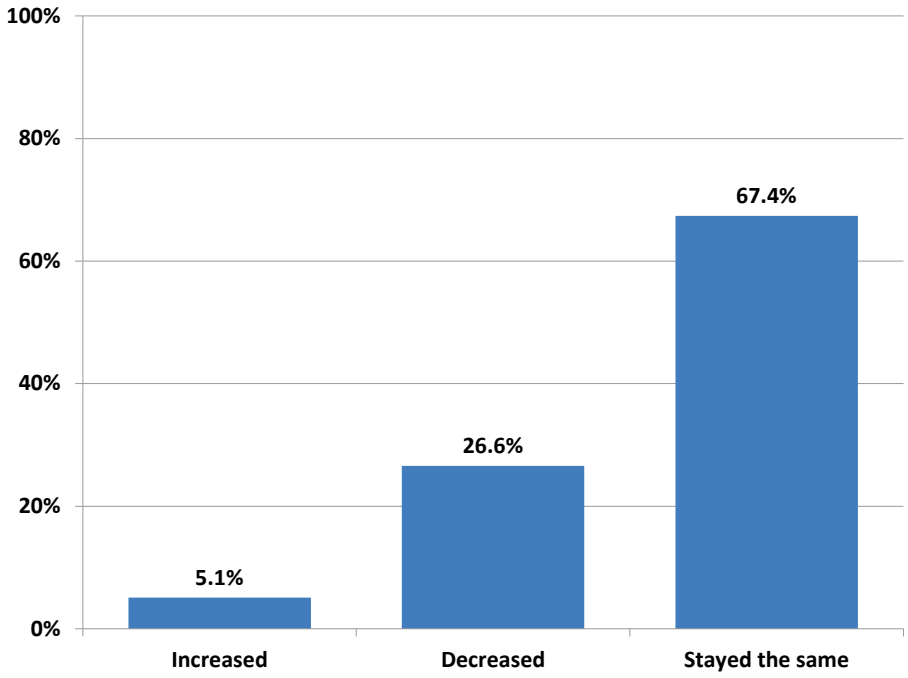
Figure 5-2: Has Your Frequency of Making and Receiving Phone Calls While Driving Increased, Decreased, or Stayed the Same, by Driver Type



Q15. In the past 30 days, has your frequency of making and receiving phone calls while driving increased, decreased, or stayed the same?
Base: Respondents Who Make or Accept Phone Calls While Driving and Were Assigned a Driver Type
Unweighted N= See Chart

When asked whether the frequency of sending text messages while driving has increased, decreased or stayed the same over the past 30 days, 67% of respondents reported the frequency has stayed the same. More than a quarter (27%) stated the frequency had decreased, while 5% said that it had increased. Respondents who had sent a text message or e-mail while driving reported a comparatively larger decrease in the frequency with which they had done so in the past 30 days than respondents who have placed or received a call while driving reported in the past 30 days.

Figure 5-3: Has Your Frequency of Sending Text Messages or E-mails While Driving Increased, Decreased, or Stayed the Same



Q15b. In the past 30 days, has the frequency with which you send and receive text messages or e-mails while driving increased, decreased, or stayed the same?
Base: Respondents That Send Text Messages or E-mails While Driving
Unweighted N= 838

Table 5-2 shows respondents' reasons for decreasing the frequency with which they send and receive text messages and e-mails while driving in the past 30 days. Almost 4 in 10 respondents (38%) cited an increased awareness of safety, while 10% mentioned not being as busy and 9% mentioned driving less often. More than 1 in 20 respondents cited laws that ban texting (8%), job-related reasons (7%), or pressure from others (7%). Fewer than 1 in 20 respondents mentioned not wanting to get a ticket (3.8%), the weather (3.4%), problems with their phone (2.4%), changes in their relationships (1.6%), or having family in the car (1.6%). Overall, the most frequently provided reason for decreases in sending and receiving text messages while driving in the past 30 days was an increased awareness of safety.

Table 5-2. Reasons for Decrease in Sending and Receiving Text Messages and E-mails While Driving

Q15c. What caused the frequency with which you send and receive text messages or e-mails while driving to decrease? [Multiple Record]	**Percent**
Increased awareness of safety	37.7%
Less use/busy/less people call/text/have number	9.5%
Driving less/not on the road as much	8.7%
Don't make/take calls/text while driving	8.4%
Law that bans texting/e-mailing	7.6%
Job-related (work less/lost job/don't get as many work calls)	7.3%
Influence/pressure from others	6.7%
Don't want to get a ticket	3.8%
The weather	3.4%
Phone issues (all mentions)	2.4%
Less use due to family/relationship changes	1.6%
Family/children in the car	1.6%
More long distance driving	0.9%
Was in a crash	0.8%
Driving faster	0.6%
Other (specify)	6.7%
Not sure	1.6%

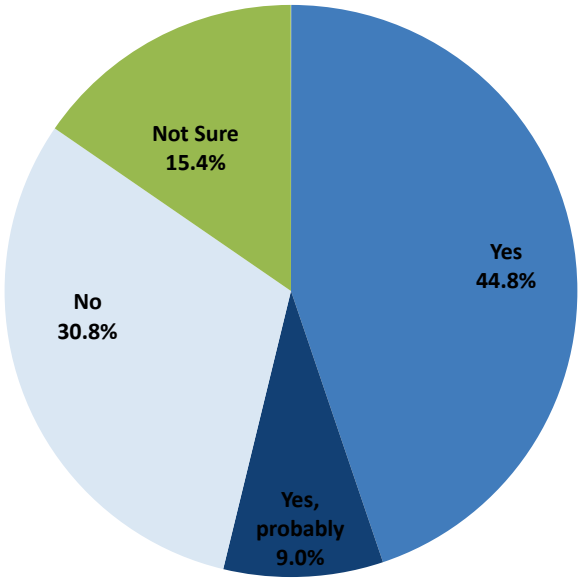
Base: Respondents whose use of text/e-mail in vehicle has decreased
Unweighted N = 230

CHAPTER 6
DISTRACTED DRIVING LAWS

Respondents were asked a series of questions about their knowledge and support of laws banning cell phone use or sending and reading text messages and e-mails while driving. They were also asked about the likelihood of receiving a ticket for talking on a cell phone or sending text messages or e-mails while driving.

Overall, 54% of respondents reported that their state does have a law banning talking on a hand-held cell phone while driving, with 45% of respondents stating that their state has such a law, and 9% stating that their state "probably" has such a law. Almost one-third of respondents (31%) stated that their State has no such law, while an additional 15% were not sure.

Figure 6-1: Does Your State Have a Law Banning Talking on a Hand-Held Cell Phone While Driving

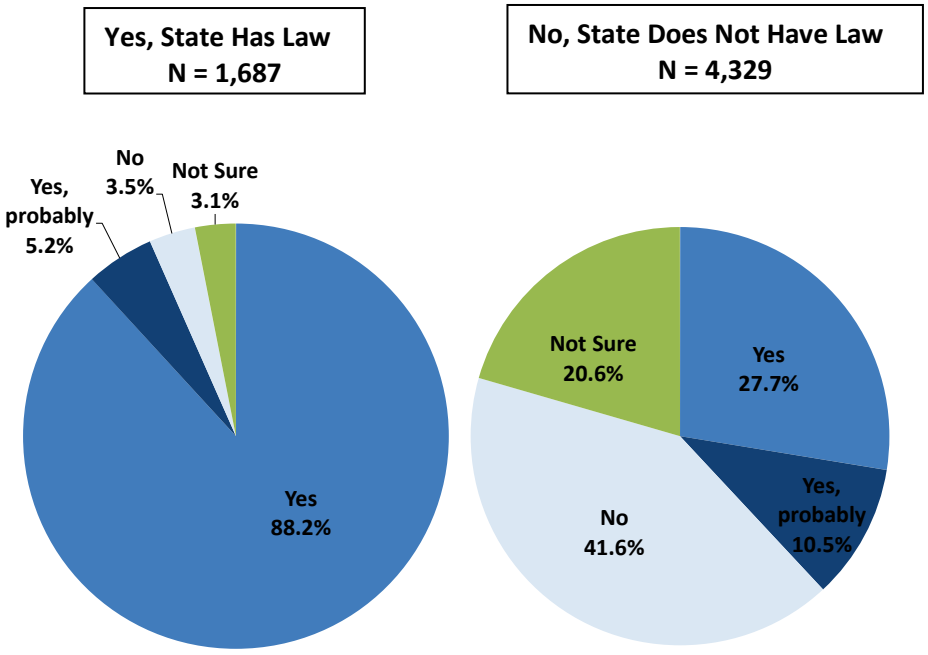


Q16. Does [SAMPSTAT] have a law banning talking on a hand-held cell phone while driving?
Base: All Respondents
Unweighted N= 6,016

Examining the responses for States with and without laws banning talking on hand-held cell phones while driving, Figure 6-2 shows that in States with such laws, 88% of respondents are aware of the law, 5% think the State probably has such a law, 4% report that the State does not have the law, and 3% are not sure.

More than 2 in 5 respondents (42%) in States without laws banning talking on hand-held cell phones while driving are aware that the State does not have such a law. More than 1 in 5 (21%) are not sure, 28% stated that the State had a law and 11% think that the State probably has such a law.

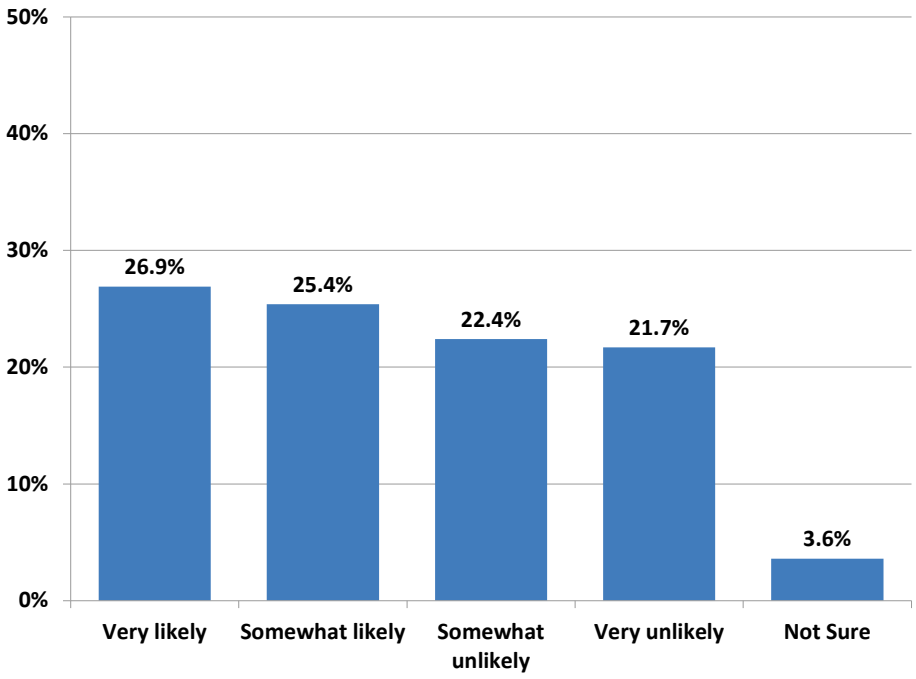
Figure 6-2: Does Your State Have a Law Banning Talking on a Hand-Held Cell Phone While Driving, by Actual State Law



Q16. Does [SAMPSTAT] have a law banning talking on a hand-held cell phone while driving?
Base: All Respondents
Unweighted N= See Chart

Respondents in States with laws banning hand-held use of cell phones while driving were asked about the likelihood of a driver who frequently uses his/her cell phone receiving a ticket for this infraction in the next 6 months. Overall, 52% of respondents thought that the driver was likely to get a ticket and 44% stated that it was unlikely that the driver would be ticketed. More than one-quarter of respondents (27%) thought it was very likely, and 25% of respondents thought it was somewhat likely that the driver would be ticketed. An equal percentage of respondents (22% each) thought it was very unlikely or somewhat unlikely that the driver would be ticketed. A small percentage of respondents (4%) was not sure.

Figure 6-3: Likelihood of Ticket for Talking on a Cell Phone While Driving

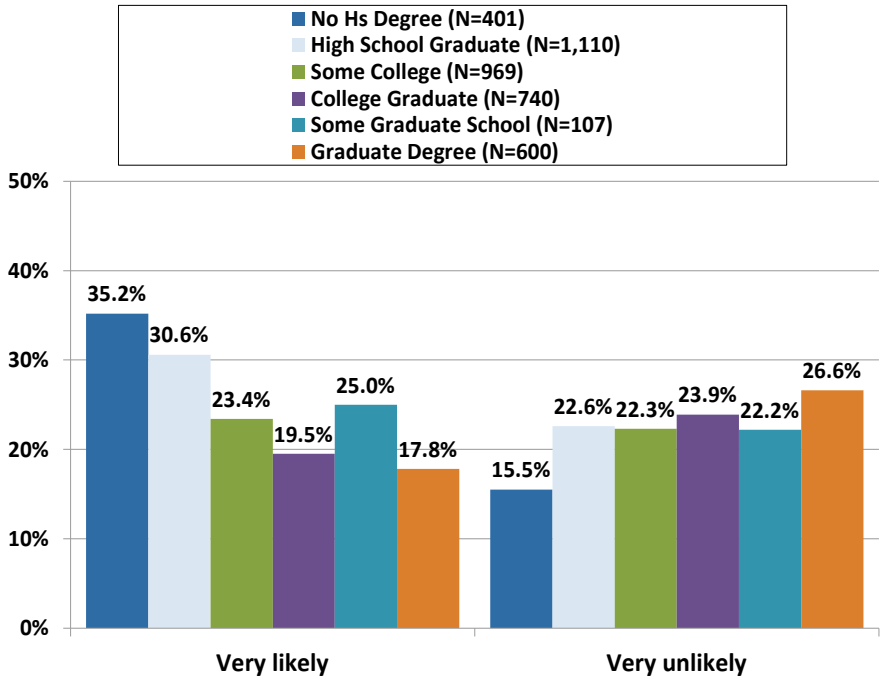


Q16a. Assume that over the next six months someone frequently TALKS on a hand-held cell phone while driving. How likely do you think that person would be to receive a ticket for talking on a cell phone while driving? [Read List]
Base: Respondents That Live in States With Banning Talking on a Cell Phone While Driving
Unweighted N= 3,981

Respondents' perceptions of the likelihood of a frequent cell phone user receiving a ticket in the next 6 months in States with laws banning hand-held cell phone use were examined by the education level of respondents. Figure 6-4 shows a clear pattern where respondents with less formal education are more likely to believe that the driver will receive a ticket and respondents with more formal education are more likely to state that the driver will not receive a ticket.

More than one-third of respondents (35%) with no high school degree believe that the driver is very likely to receive a ticket, while 27% of respondents with a graduate degree believe that it is very unlikely that the driver will receive a ticket. Conversely, only 16% of respondents without a high school degree believe that the driver is very unlikely to be ticketed, and 18% of respondents with graduate degrees believe that the driver is highly likely to receive a ticket. Respondents with some college education but no degree are almost evenly split between the two extremes, with 23% stating that it would be very likely for the driver to get a ticket and 22% stating it would be very unlikely.

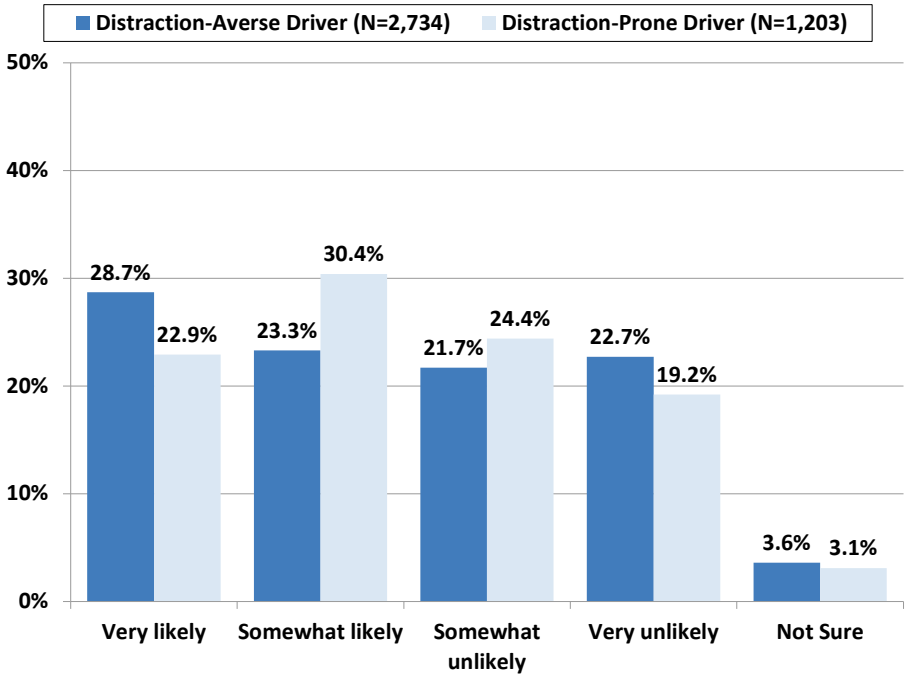
Figure 6-4: Likelihood of Ticket for Talking on a Cell Phone While Driving, by Highest Level of School Completed



Q16a. Assume that over the next six months someone frequently TALKS on a hand-held cell phone while driving. How likely do you think that person would be to receive a ticket for talking on a cell phone while driving? [Read List]
Base: Respondents Who Live in States That Ban Talking on a Cell Phone While Driving
Unweighted N= See Chart

Figure 6-5 shows that there is little difference in respondents' perception of the likelihood that a driver talking on a cell phone would receive a ticket, by driver type. Overall, distraction-prone and distraction-averse drivers were about equally divided into those who believed the driver would be ticketed or not ticketed, with 53% of distraction prone drivers and 52% of distraction-averse drivers indicating that it was at least somewhat likely that the driver would get a ticket. Among distraction-averse drivers, 29% indicated that it was very likely, and 23% stated that it was somewhat likely that the driver would get a ticket. Among distraction-prone drivers, 23% stated it was very likely that the driver would receive a ticket, and 30% stated that it was somewhat likely. A similar percent of distraction-prone drivers and distraction averse drivers indicated that the driver was somewhat unlikely to receive a ticket (24% versus 22%), that the driver was very unlikely to receive a ticket (19% versus 23%), or they were not sure (3% versus 4%).

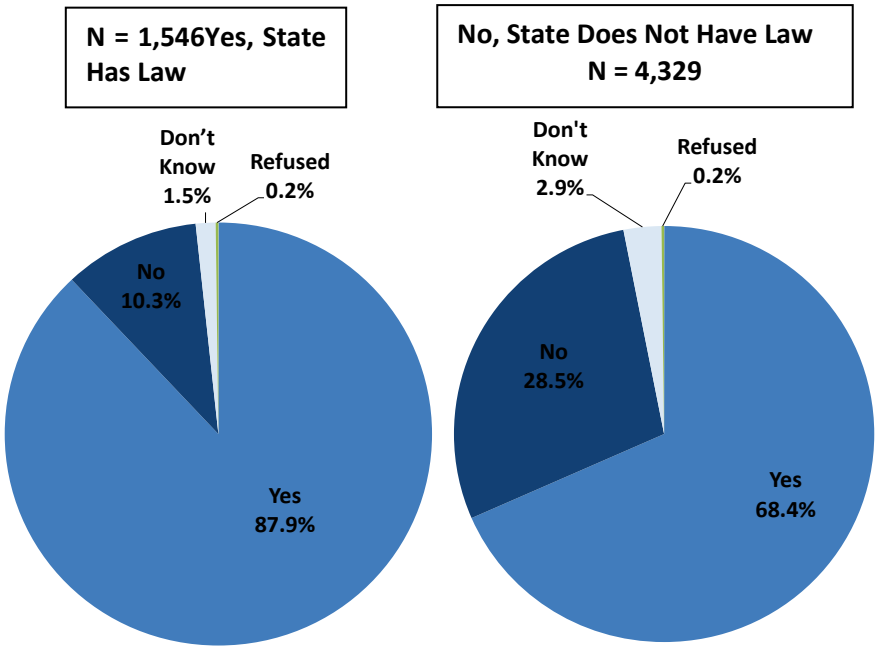
Figure 6-5: Likelihood of Ticket for Talking on a Cell Phone While Driving, by Driver Type



Q16a. Assume that over the next six months someone frequently TALKS on a hand-held cell phone while driving. How likely do you think that person would be to receive a ticket for talking on a cell phone while driving? [Read List]
Base: Respondents Who Live in States That Ban Talking on a Cell Phone While Driving and Were Assigned a Driver Type
Unweighted N= See Chart

Respondents were asked whether they support a State law that bans talking on a hand-held cell phone while driving. The majority of respondents (74%) were in favor of such a law, regardless of whether their State had a ban. However, respondents who live in States that do not have a ban on talking on a hand-held cell phone while driving were more likely to oppose a ban than respondents living in States that already have a ban (29% versus 10%).

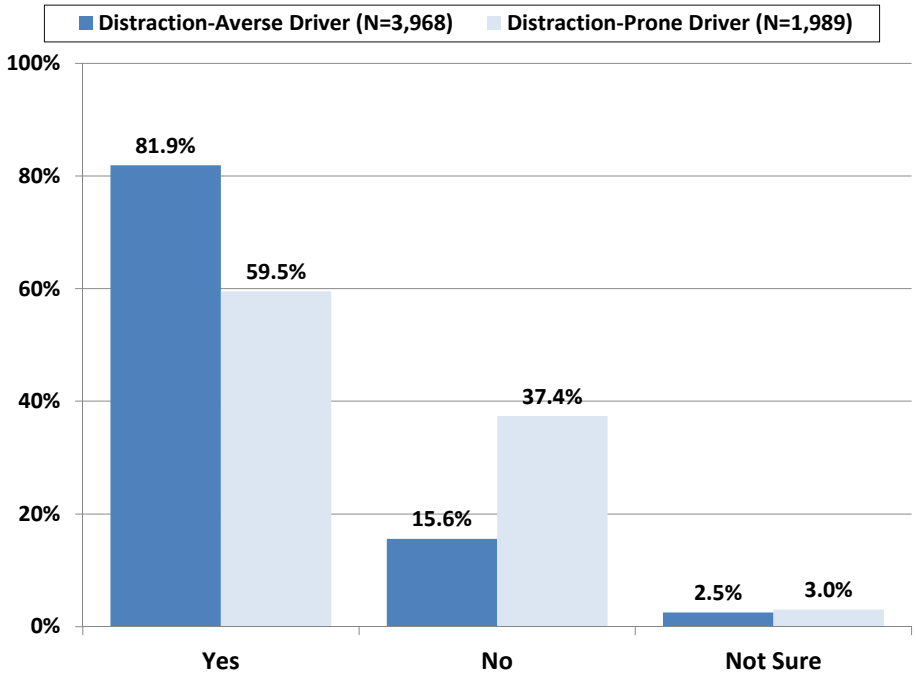
Figure 6-6: Do You Support a Law Banning Talking on a Hand-Held Cell Phone While Driving



Q17. Do you support a State law banning talking on a hand-held cell phone while driving?
Base: All Respondents
Unweighted N= 6,016

Figure 6-7 shows that respondents' support for a State law banning talking on a hand-held cell phone while driving is related to driver type. Distraction-averse drivers were more likely to support such a law, while distraction-prone drivers were more likely to oppose such a law. More than 4 in 5 distraction-averse drivers (82%) and 60% of distraction-prone drivers stated that they support a law banning talking on a cell phone while driving. About 1 in 6 (16%) distraction-averse drivers and 37% of distraction-prone drivers are opposed to such a law.

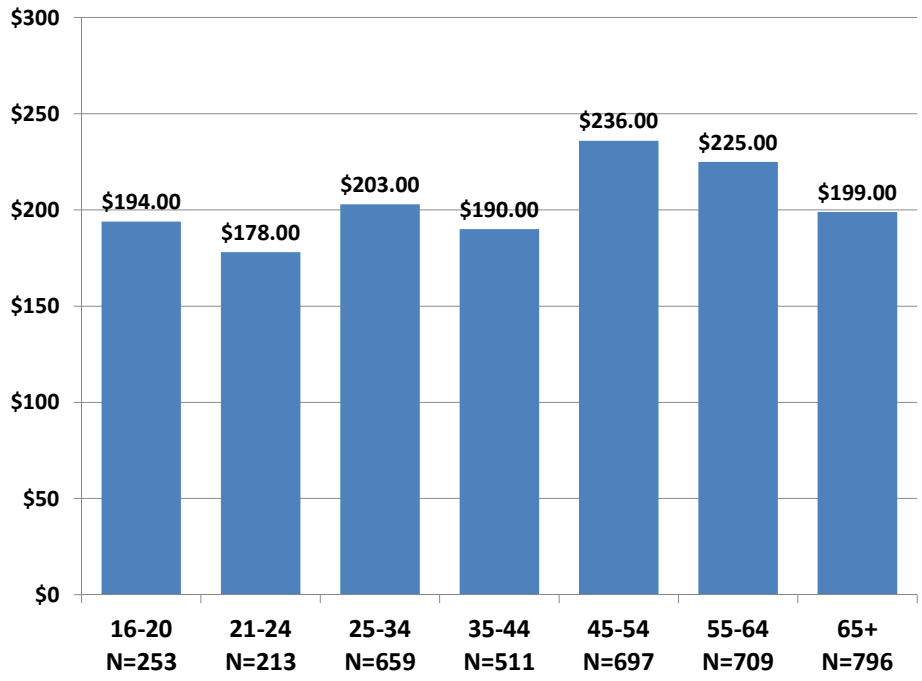
Figure 6-7: Support for Law Banning Talking on a Hand-Held Cell Phone While Driving By Driver Type



Q17. Do you support a State law banning talking on a hand-held cell phone while driving?
Base: All Respondents Assigned a Driver Type
Unweighted N= See Chart

Respondents who stated that they supported a ban on talking on a hand-held cell phone while driving, or who were unsure whether they supported such a ban, were asked how much they thought the fine should be for talking on a hand-held cell phone while driving. While the mean amount volunteered by respondents across age groups did not vary much, older respondents favored slightly higher fines. Respondents 21 to 24 had the lowest mean amount with only $178, while respondents 45 to 54 had the highest mean amount with $236. On average, respondents of all ages supported a fine of $209.

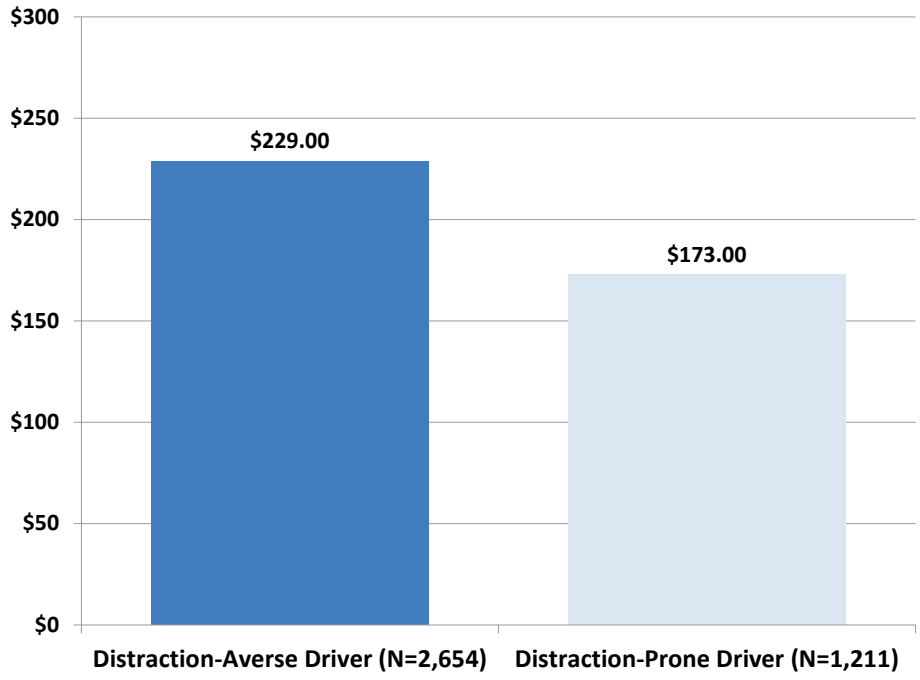
Figure 6-8: Average Fine for Talking on Hand-Held Cell Phone While Driving, by Age



Q17a. What do you think the fine should be for talking on a hand-held cell phone while driving?
Base: Respondents Who Support a Ban on Talking on a Hand-Held Cell Phone While Driving, or Don't Know
Unweighted N= 4,487

When compared to driver type, the average fine volunteered by distraction-averse drivers for talking on a hand-held cell phone while driving was higher than the average fine volunteered by distraction-prone drivers ($229 versus $173).

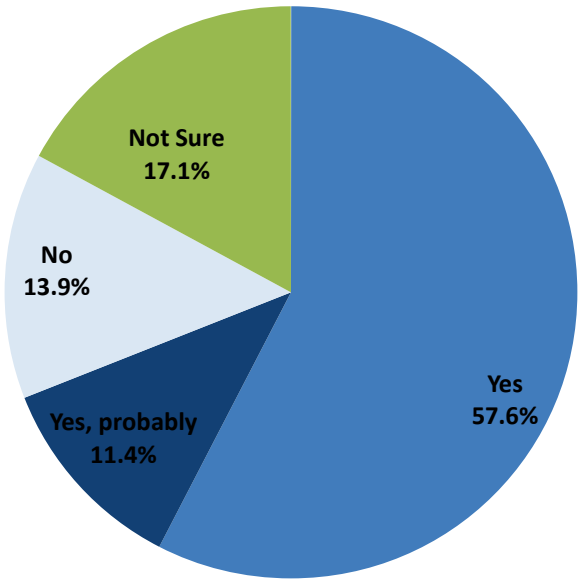
Figure 6-9: Average Fine for Talking on Hand-Held Cell Phone While Driving By Driver Type



Q17a. What do you think the fine should be for talking on a hand-held cell phone while driving?
Base: Respondents Who Support a Ban on Talking on a Hand-Held Cell Phone While Driving, or Don't Know and Were Assigned a Driver Type
Unweighted N= See Chart

Respondents were asked whether their State has a law that bans sending text messages or e-mails while driving. More than half of respondents (58%) reported that their State has such a law, and 14% of respondents stated that their State does not have a law that bans sending electronic messages while driving. Almost 3 in 10 respondents (28%) were either unsure (17%), or thought it was likely but could not say for certain (11%), if their State has such a law.

Figure 6-10: Does Your State Have a Law Banning Texting or E-mailing While Driving

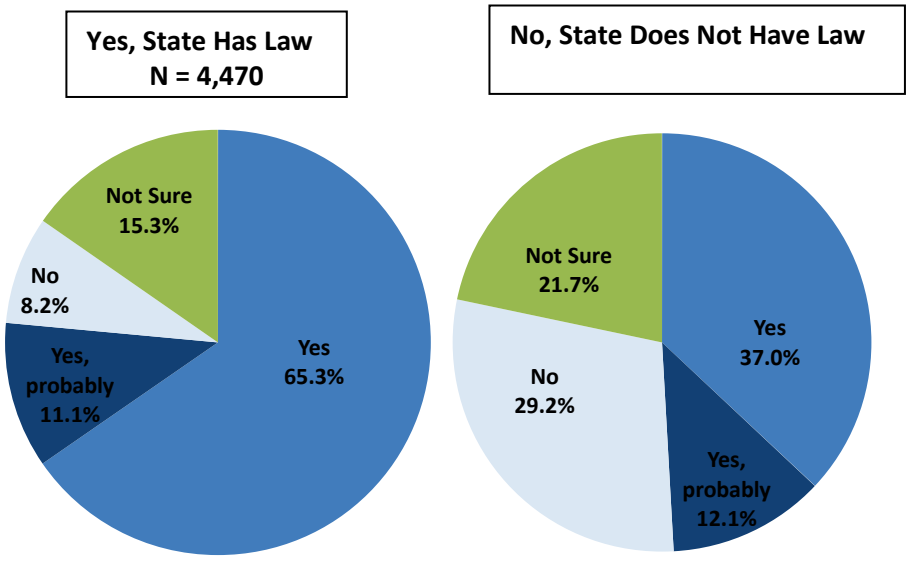


Q16b. Does [SAMPSTAT] have a law banning TEXTING OR E-MAILING while driving?
Base: All Respondents
Unweighted N= 6,016

Figure 6-11 shows driver's awareness of State laws banning texting or e-mailing while driving by whether or not their State has such a law. In States with laws banning texting or e-mailing, 65% of respondents knew about the law, 11% thought that the State probably had such a law, 15% were not sure, and 8% stated that their State did not have such a law.

In States without a law banning texting or e-mailing while driving, 29% of respondents were aware that there was no such law, 22% were not sure, and many believed that their State had (37%) or probably had (12%) such a law.

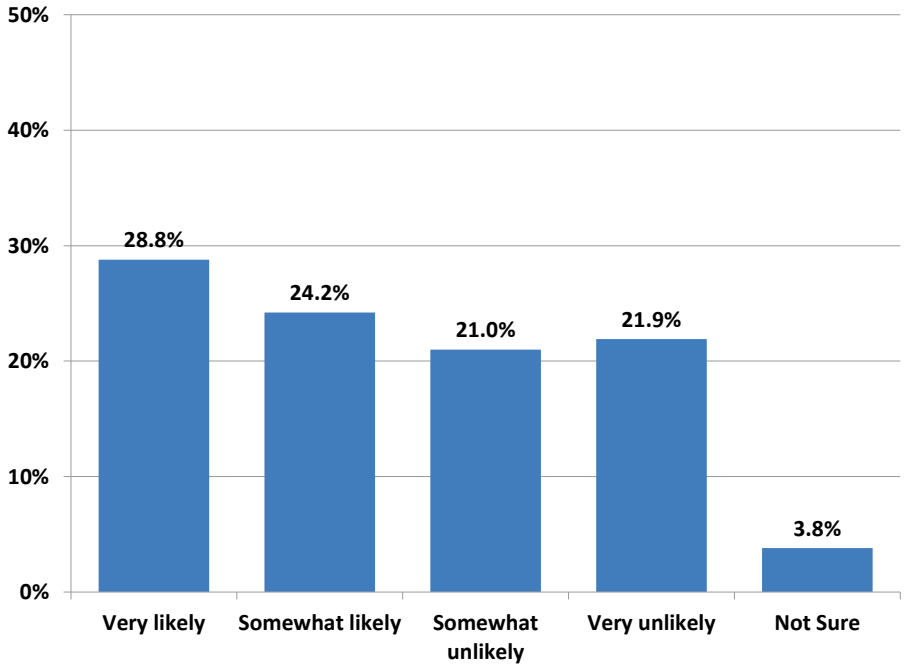
Figure 6-11: Does Your State Have a Law That Bans Sending Electronic Messages While Driving, by Actual State Law



Q16b. Does [SAMPSTAT] have a law banning TEXTING OR E-MAILING while driving?
Base: All Respondents
Unweighted N=See Chart

Respondents that reported living in a State with laws banning texting or e-mailing while driving were asked about the likelihood of a driver who frequently sends text messages or e-mails while driving receiving a ticket for this infraction in the next 6 months. Similar to Figure 6-3, Figure 6-12 shows that slightly more respondents believe it is likely that the driver would receive a ticket, with 53% stating it would be at least somewhat likely while 43% think it is at least somewhat unlikely. Almost 3 in 10 (29%) thought it was very likely, 24% thought it was somewhat likely, and more than 1 in 5 thought it was somewhat unlikely (21%) or very unlikely (22%).

Figure 6-12: Likelihood of Ticket for Sending Text Messages or E-mails While Driving

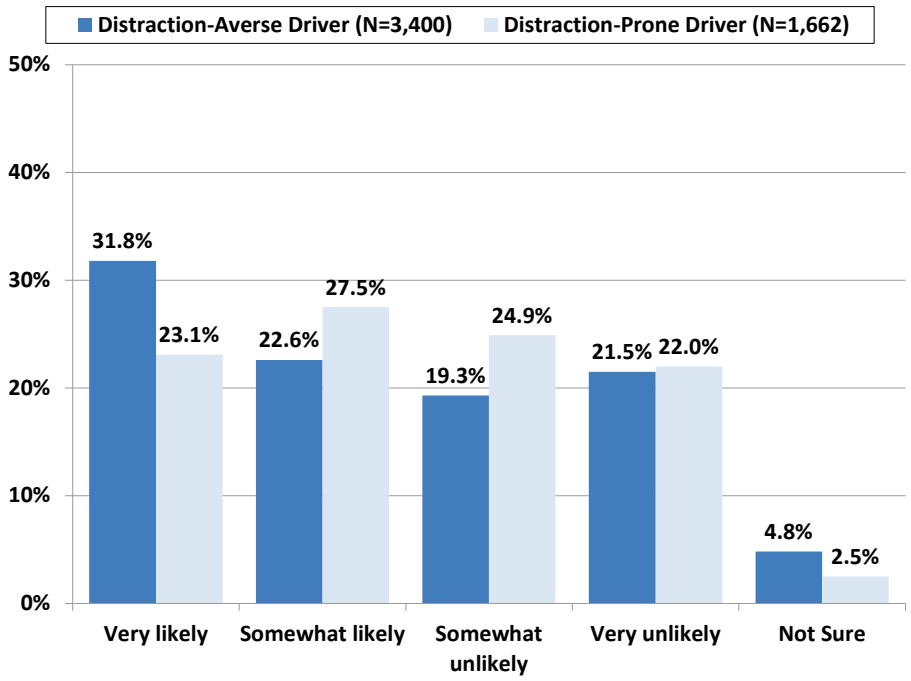


Q16c. Assume that over the next six months someone frequently sends text messages or e-mails while driving. How likely do you think that person would be to receive a ticket for sending text messages or e-mails while driving? [Read List]
Base: Respondents That Report Living in a State that Bans Sending Text Messages and E-mails While Driving
Unweighted N=5,115

Figure 6-13 shows respondents' perception of the likelihood that a driver sending electronic messages while driving would receive a ticket, by driver type. More than half of distraction-averse drivers (55%) as well as distraction-prone drivers (51%) thought that it was at least somewhat likely that the driver would be ticketed.

Distraction-averse drivers were more likely to state that the driver was very likely to receive a ticket, while distraction-prone drivers more often reported the driver was only somewhat likely or not likely to receive a ticket, with 32% of distraction-averse drivers and 23% of distraction-prone drivers stating that the driver was very likely to receive a ticket. There was little difference by driver type in the frequency with which respondents stated that the driver was very unlikely to receive a ticket, with 22% of both distraction-prone and distraction-averse drivers stating that it was very unlikely. Almost a quarter of distraction-averse drivers (23%) and 28% of distraction-prone drivers thought it was somewhat likely that the driver would receive a ticket.

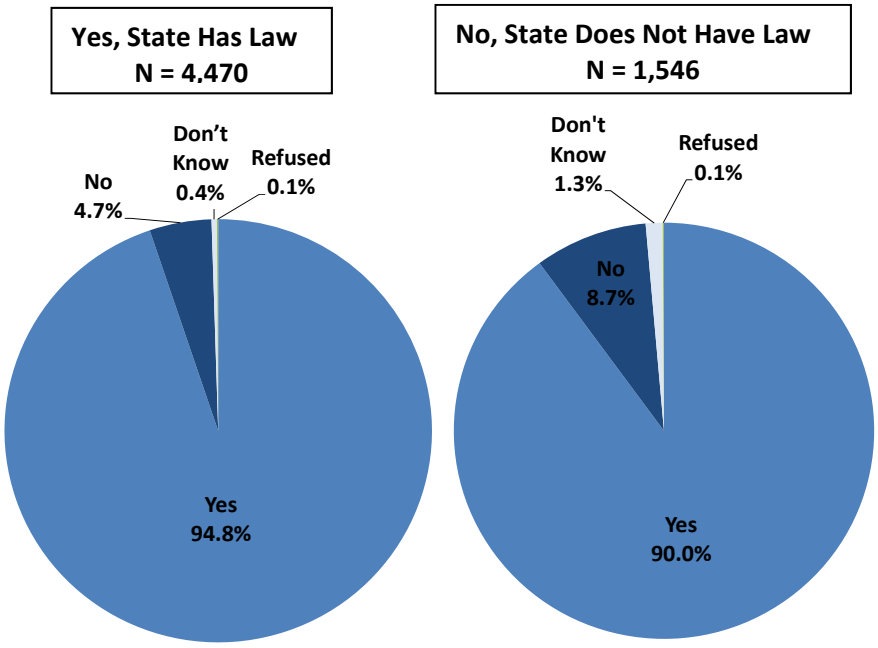
Figure 6-13: Likelihood of Ticket for Sending Text Messages or E-mails While Driving, by Driver Type



Q16c. Assume that over the next six months someone frequently sends text messages or e-mails while driving. How likely do you think that person would be to receive a ticket for sending text messages or e-mails while driving? [Read List]
Base: Respondents That Report Living in States that Ban Sending Text Messages and E-mails While Driving and assigned a Driver Type
Unweighted N=See Chart

Respondents were asked whether they would support a State law that bans texting or e-mailing while driving. The overwhelming majority of respondents (94%) were in favor of a law that bans sending electronic message while driving. However, as in Figure 6-6, respondents who live in States without such a ban were slightly more likely to oppose a ban than respondents living in a State that already has one (9% versus 5%).

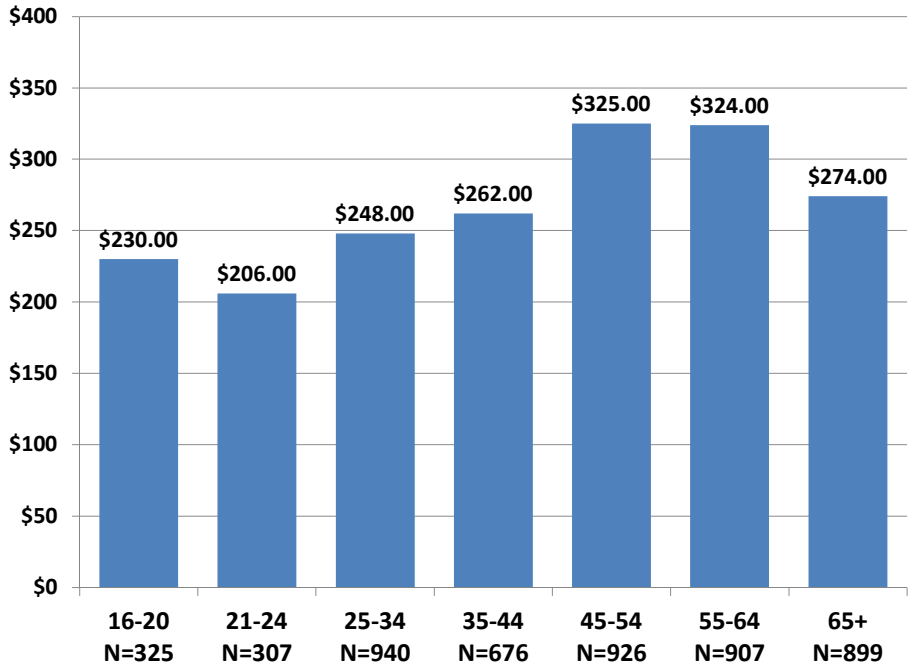
Figure 6-14: Do You Support a Law Banning Texting or E-mailing While Driving



Q17b. Do you support a State law banning texting or e-mailing while driving?
Base: All Respondents
Unweighted N= 6,016

Respondents who supported a ban on sending text messages or e-mails while driving, or who were unsure whether they supported such a ban, were asked what the average fine should be for sending text messages or e-mails while driving. Overall, younger respondents favored lower average fines than older respondents. Respondents 21 to 24 volunteered the lowest average fine at $206, and respondents 45 to 54 volunteered the highest at $325. On average, respondents of all ages supported a fine of $279.

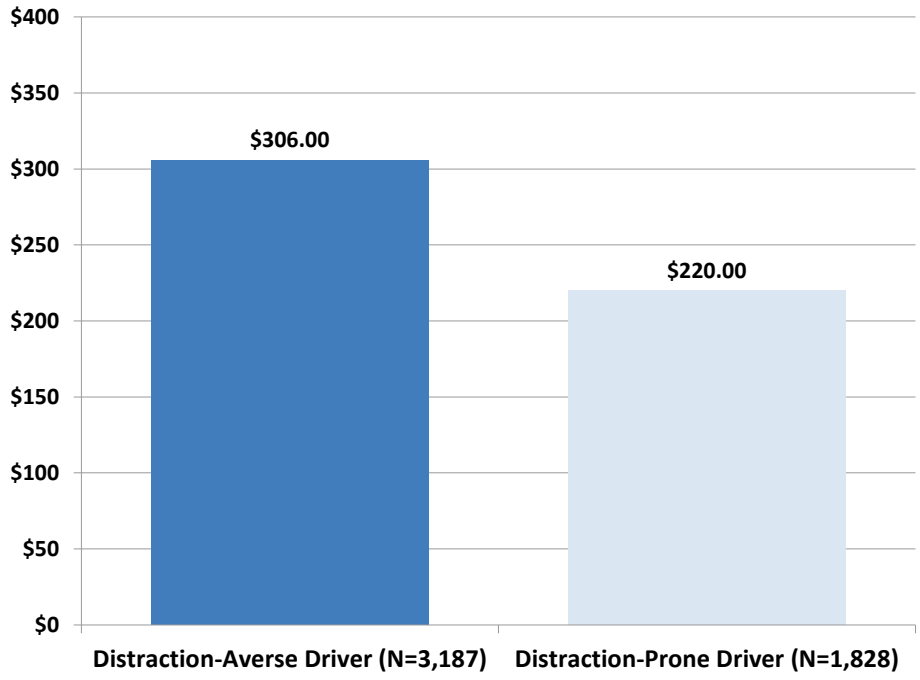
Figure 6-15: Average Fine for Sending Text Messages or E-mails While Driving, by Age



Q17c. What do you think the fine should be for sending text messages or e-mails while driving?
Base: Respondents Who Support a Ban on Talking on a Hand-Held Cell Phone While Driving, or Don't Know
Unweighted N= 5,663

When compared by driver type, distraction-averse drivers who supported bans on sending electronic messages while driving volunteered higher average fines than distraction-prone drivers ($306 versus $220).

Figure 6-16: Average Fine for Sending Text Messages While Driving by Driver Type

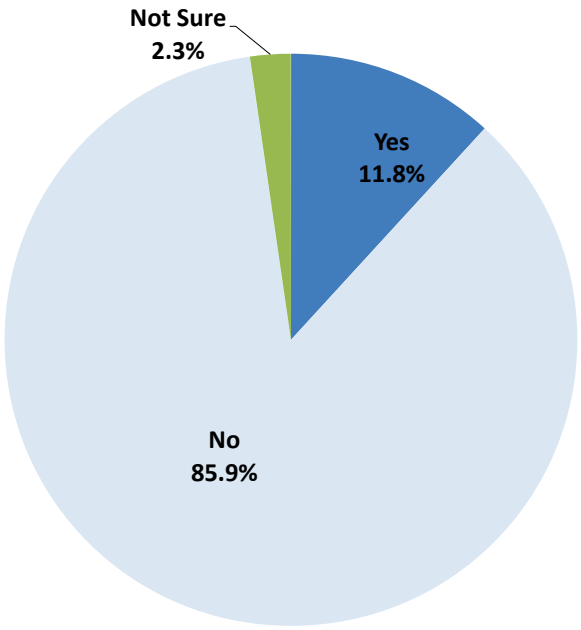


Q17c. What do you think the fine should be for sending text messages or e-mails while driving?
Base: Respondents Who Support a Ban on Talking on a Hand-Held Cell Phone While Driving, or Don't Know and Were Assigned a Driver Type
Unweighted N= See Chart

CHAPTER 7
PROGRAM AWARENESS

Respondents were asked whether they had seen or heard of any special effort by police to ticket drivers in their community for using hand-held cell phones while driving. The majority of respondents (86%) were not aware of any special programs or efforts to ticket drivers using hand-held cell phones while driving. Slightly more than 1 in 10 respondents (12%) reported that they were aware of a special effort to ticket drivers using cell phones while driving and an additional 2% were unsure.

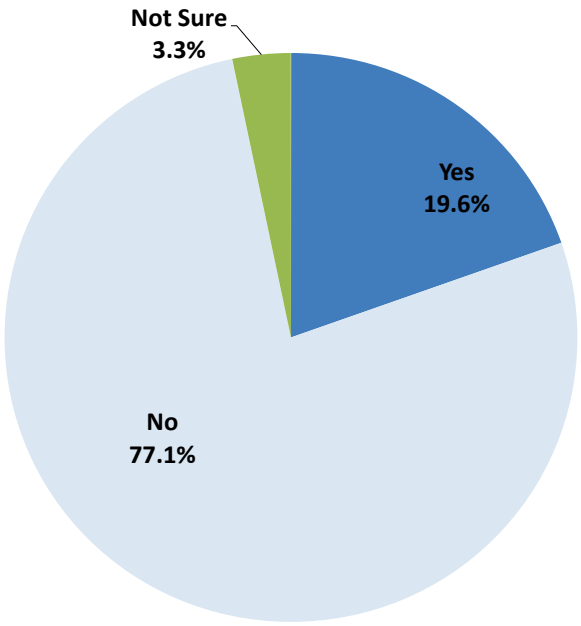
Figure 7-1: Heard of Special Effort to Ticket Drivers Using Hand-Held Cell Phone While Driving



Q18. In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for using hand-held cell phones while driving?
Base: All Respondents
Unweighted N= 6,016

When we limit the responses to those of respondents who reside in States where there are laws banning the hand-held use of cell phones while driving, the prevalence of awareness of these programs increases. One in 5 respondents (20%) had seen or heard about a special effort by police to ticket those using hand held cell phones while driving. Most (77%) had not seen a special effort and 3% were not sure.

Figure 7-2: Heard of Special Effort to Ticket Drivers Using Hand-Held Cell Phone While Driving (Respondents Who Reside in States With Hand-Held Ban)



Q18. In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for using hand-held cell phones while driving?
Base: Respondents Who Reside in States With Hand Held Ban
Unweighted N= 1,687

Respondents were asked how they became aware of the special efforts in their community to ticket drivers using hand-held cell phones while driving. Table 7-1 shows that many respondents became aware of special enforcement through television news or advertisements, with 42% mentioning some type of television programming. The second most frequent source of information about special enforcement efforts was through print media, with 26% of respondents citing some type of print media, such as billboards or newspapers/magazines. About 1 in 6 respondents (17%) mentioned radio programming as their source. Other commonly mentioned sources included conversations with friends or relatives (12%) or witnessing enforcement activity (11%). One in 40 respondents (2.5%) mentioned learning about the special enforcement effort via the internet.

Table 7-1: How Respondents Were Made Aware of Special Effort

Q18a. Where did you see or hear about that special effort? [Multiple Record]	**Percent**
TV	**42.4%**
TV - news	27.6%
TV - advertisement/public service announcement	14.5%
Print Media	**26.0%**
Billboard/signs	16.3%
Newspaper/magazine	9.5%
Radio	**16.9%**
Radio - advertisement/public service announcement	8.5%
Radio - news	8.3%
Internet	**2.5%**
Social networking website (Facebook, MySpace, Twitter)	1.3%
Online news/blog	0.7%
Internet ad/banner	0.2%
Online video (YouTube, Google Video)	0.2%
Other	**33.3%**
Friend/relative	11.8%
Witnessed enforcement activity	11.3%
Direct contact by police officer	2.7%
Educational program	1.7%
School zones/around/from school	1.3%
I'm a police officer/judge	1.2%
Other (SPECIFY)	4.4%
Not Sure	**2.2%**

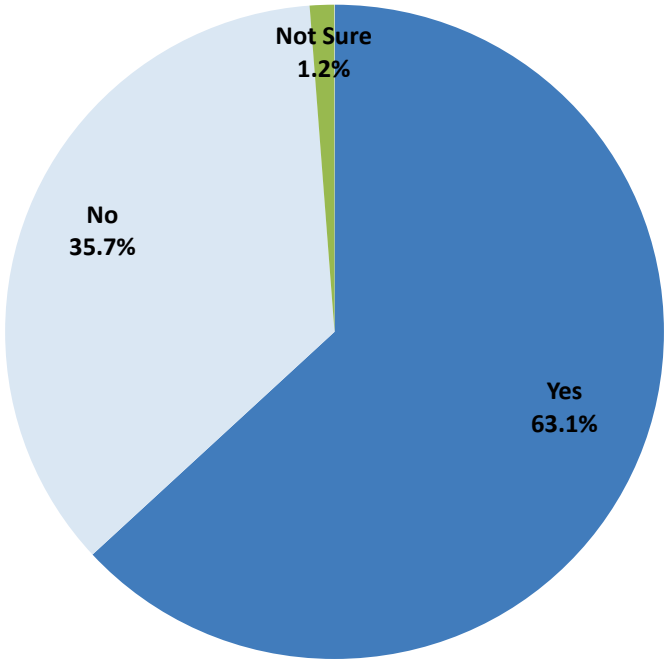
Base: Respondents aware of special effort to ticket distracted drivers
Unweighted N =651

CHAPTER 8
EDUCATIONAL MESSAGES

This chapter examines respondents' exposure to educational messages about distracted driving that encourage people not to talk on cell phones or text while driving. Respondents were asked if they had seen or heard such messages in the past 30 days, and the circumstances under which they saw or heard these messages.

Respondents were first asked if they had seen or heard a message within the last 30 days that encouraged people not to talk on phones or send electronic messages while driving. Almost two thirds of respondents (63%) stated that they had been exposed to such a message within the past 30 days.

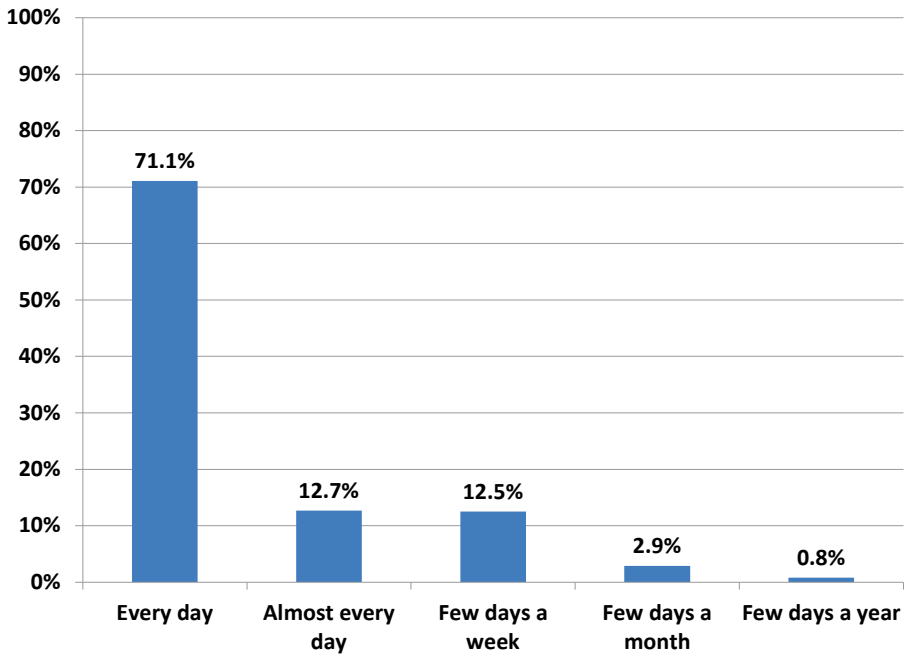
FIGURE 8-1: Percentage of Respondents who Heard a Message Discouraging Distracted Driving in Past 30 Days



Q19. In the past 30 days, have you seen or heard any messages that encourage people not to talk on phones or send electronic messages while driving? This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.
Base: All respondents
Unweighted N = 6,016

Of those respondents who reported seeing or hearing a message that encourages people not to talk on phones or send electronic messages while driving, 71% reported that they drive every day. Another 13% stated that they drive almost every day or at least a few days a week. Finally, 3% drive a few days a month and 1% reported driving only a few days a year.

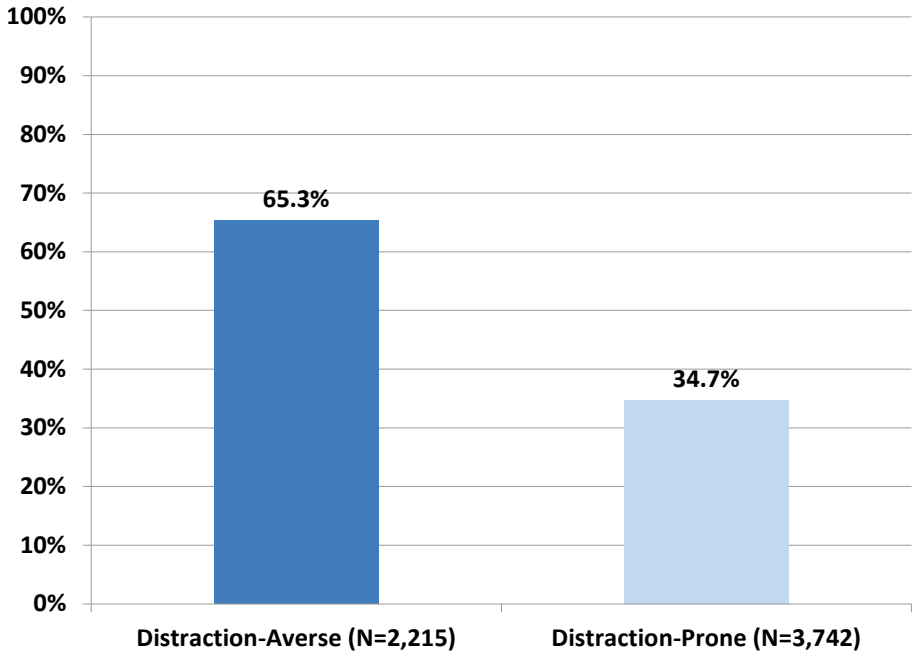
FIGURE 8-2: Frequency of Driving of Respondents Exposed to Messages Discouraging Cell Phone Related Distracted Driving



Q19. In the past 30 days, have you seen or heard any messages that encourage people not to talk on phones or send electronic messages while driving? This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.
Base: Reported hearing or seeing a message discouraging cell phone-related distracted driving in past 30 days
Unweighted N = 3,846

Distraction-averse drivers were more likely to report seeing or hearing messages that discourage distracted driving than distraction-prone drivers (Figure 8-3). Among drivers who reported seeing or hearing any messages that encourage people not to talk on phones or send electronic messages while driving, 65% were people classified as distraction-averse and 35% were classified as distraction-prone drivers.

FIGURE 8-3: Respondents Exposed to Messages Discouraging Cell Phone Distracted Driving, by Driver Type



Q19. In the past 30 days, have you seen or heard any messages that encourage people not to talk on phones or send electronic messages while driving? This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.
Base: All Respondents Assigned a Driver Type
Unweighted N = 6,016

Respondents who reported that they heard or saw messages that encourage drivers not to talk on cell phones or send electronic messages while driving in the past 30 days were asked where they heard or saw the message. More than one source could be given. Almost half (47%) of these respondents had seen such a message on a TV advertisement or public service announcement. More than one-quarter (27%) had seen such a message on a billboard or sign, and another 25% had seen a news segment featuring such a message. More than 1 in 5 respondents (22%) had heard the message on a radio public service announcement, while 8% heard a radio news segment featuring the message. A small number of respondents saw or heard the message in a newspaper or magazine (5.0%), in an internet ad or banner (2.7%), on the road (1.5%), from a friend or relative (1.4%), or at an educational program (1.2%).

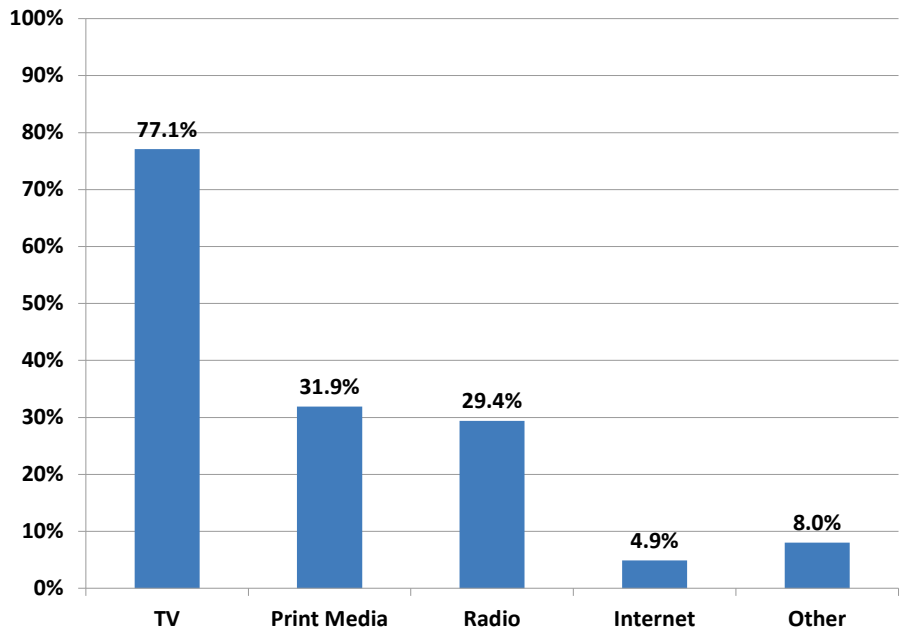
Table 8-1: Source of Messages Discouraging Cell Phone-Related Distracted Driving

Q19a. Where did you see or hear these messages? [Multiple Record]	**Percent**
TV - advertisement/public service announcement	47.0%
Billboard/signs	26.9%
TV - news	25.3%
Radio - advertisement/public service announcement	21.6%
Radio - news	7.7%
Newspaper/magazine	5.0%
Internet ad/banner	2.7%
Personal observation/on the road	1.5%
Friend/relative	1.4%
Educational program	1.2%
Social networking website (Facebook, MySpace, Twitter)	1.0%
Online news/blog	0.7%
Online video (YouTube, Google Video)	0.5%
Internet game	0.1%
I'm a police officer/judge	0.1%
Other (SPECIFY)	3.7%
Not Sure	1. 0%

Base: Respondents who heard messages encouraging drivers not to talk on phone or send messages while driving
Unweighted N= 3,846

Figure 8-4 shows the reported distribution of media sources that delivered messages to those respondents who recalled having heard or seen the message in the past 30 days. The most frequent sources of the messages discouraging cell phone-related distracted driving were television programming, print media, and radio programming. More than three-quarters of respondents (77%) listed some form of television programming as their source of the message. Almost a third (32%) reported some type of print media like billboards or newspapers, while 29% reported hearing the message on the radio. Exposure to the message via the internet was reported by 5% of respondents, while 8% mentioned sources such as conversations with friends or an educational program.

FIGURE 8-4: Source of Messages Discouraging Cell Phone-Related Distracted Driving

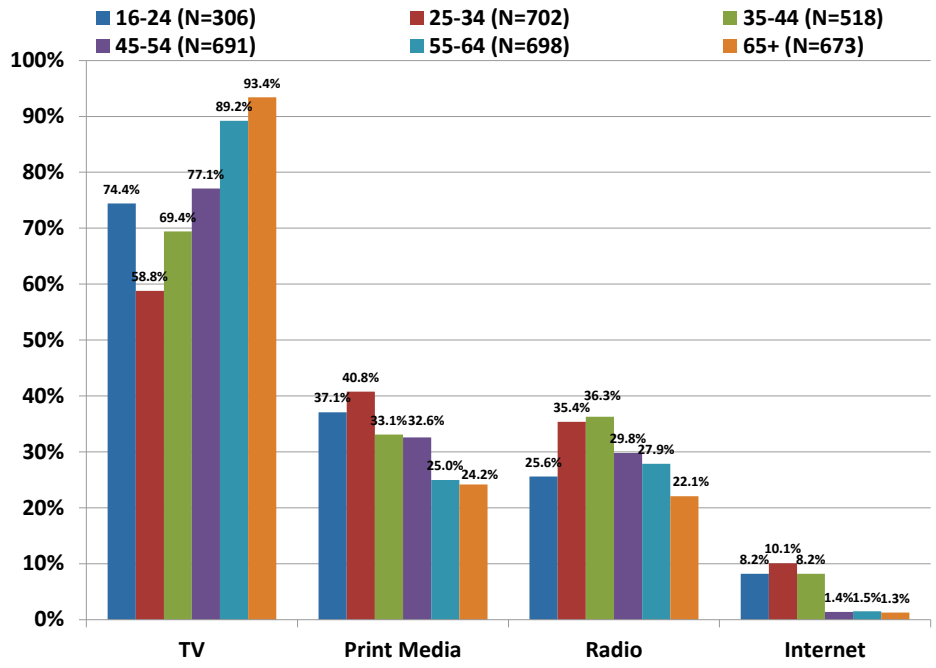


Q19a. Where did you see or hear these messages? [Multiple Record]
Base: Respondent saw a message discouraging distracted driving in past 30 days
Unweighted N = 3,846

The source by which respondents were exposed to messages discouraging cell phone distracted driving in the past 30 days was examined further by age (Figure 8-5). The most common sources of the message across all respondents were TV, print media, and radio. Only a few respondents mentioned the internet.

However, there are some correlations between respondent age and message source. Across most age groups, it was increasingly likely that older respondents would mention the TV as a source of exposure to such messages, ranging from 59% of respondents 25 to 34 mentioning TV to 93% of respondents 65 and older. While differences by age were less systematic when examining the percentage of respondents who mentioned print media or radio, respondents 25 to 34 were the most likely to mention print media (which includes newspapers, magazines and billboards), with 41% of respondents mentioning print media as their source of message. The 35 to 44 age group was the most likely to mention radio, with 36% stating that they heard the message on the radio. Younger respondents were more likely than older respondents to list the internet as their source. Around 1 in 10 of the younger respondents 16 to 24 (8%), 25 to 34 (10%), and 35 to 44 (8%) mentioned the internet, while only 2% or fewer of respondents 45 and older mentioned the internet.

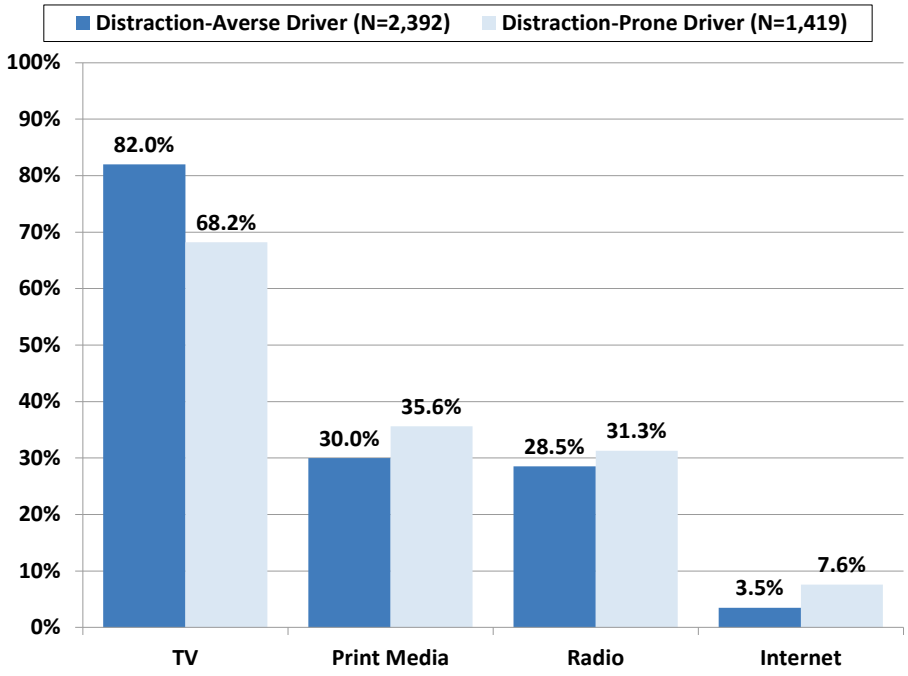
FIGURE 8-5: Source of Messages Discouraging Cell Phone-Related Distracted Driving, by Age



Q19a. Where did you see or hear these messages? [Multiple Record]
Base: Respondent Who Saw a Message Discouraging Distracted Driving in Past 30 Days
Unweighted N = See Chart

Figure 8.6 shows the sources of messages discouraging cell phone distracted driving as reported by distraction-prone and distraction-averse drivers. Distraction-averse drivers were more likely than distraction-prone drivers to list television programming, with 82% of distraction-averse drivers compared to 68% of distraction-prone drivers listing television programming as a source of the message. On the other hand, distraction-prone drivers are slightly more likely than distraction-averse drivers to mention print media, which includes newspapers and billboards, with 36% of distraction-prone drivers mentioning print media as compared to 30% distraction-averse drivers (30%). Approximately 3 in 10 distraction-prone drivers (31%) as well as distraction-averse drivers (29%) mentioned the radio as a source of the message they heard. Less than 1 in 10 distraction-prone drivers (8%) mentioned the internet as a source as do 3.5% of distraction-averse drivers. Most respondents, regardless of driver type, mentioned television programming as a source of messages that discourage distracted driving.

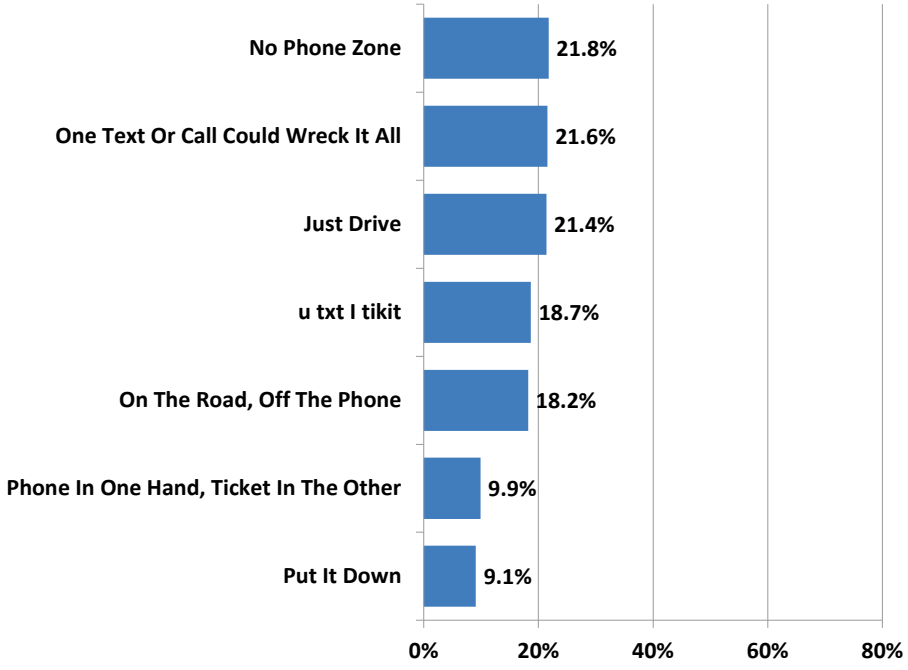
FIGURE 8-6: Source of Messaging, by Driver Type



Q19a. Where did you see or hear these messages? [Multiple Record]
Base: Saw Messages and Assigned a Driver Type
Unweighted N=See Chart

Respondents were read educational slogans concerned with safe driving and asked if they had heard each message in the past 30 days. Figure 8.7 shows the percentage of respondents who reported having heard 7 slogans in the past 30 days that are applicable to cell phone-related distracted driving. Twenty-two percent had heard "No Phone Zone" or "One Text or Call Could Wreck It All" in the past 30 days. Approximately 1 in 5 respondents reported having heard "Just Drive," (21%) and "u txt i tikit" (19%) in the past 30 days, while 18% of respondents had heard "On the Road. Off the Phone." One in 10 had heard "Phone in One Hand. Ticket in the Other" (10%) and 9% had heard "Put It Down."

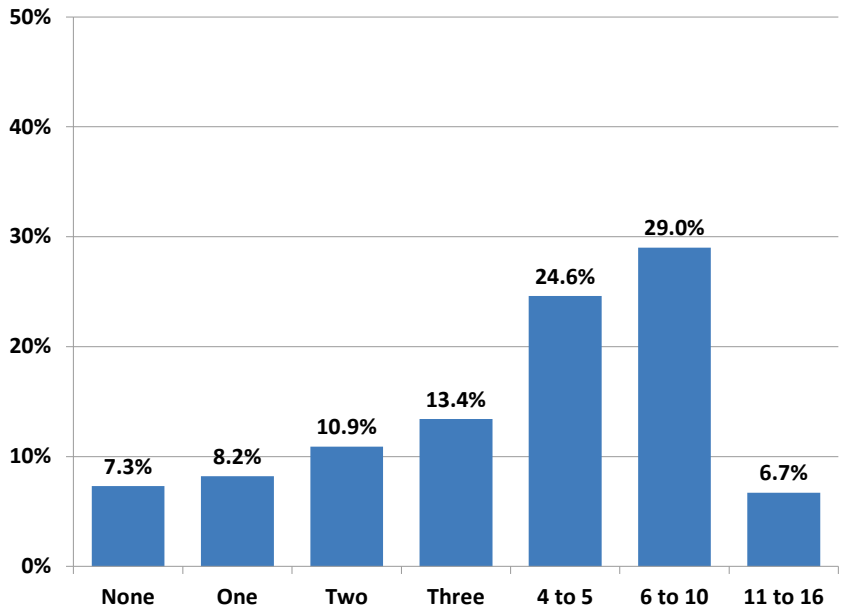
FIGURE 8-7: Heard Slogans in Past 30 Days



Q20. Do you recall hearing or seeing the following slogans in the past 30 days?
Base: All Respondents
Unweighted N=6,016

In addition to slogans pertaining to cell phone-related distracted driving, respondents were asked if they had heard or seen other safe driving slogans. Figure 8.8 shows the total number of different safe driving slogans that respondents reported having heard in the past 30 days. Almost 1 in 3 (29%) reported hearing between 6 and 10 slogans, 25% of respondents reported hearing 4 or 5, 13% recognized three slogans, 11% recognized two, and 8% reported hearing one. The same percentage (7%) reported hearing more than 11 of the slogans, or none in the last 30 days.

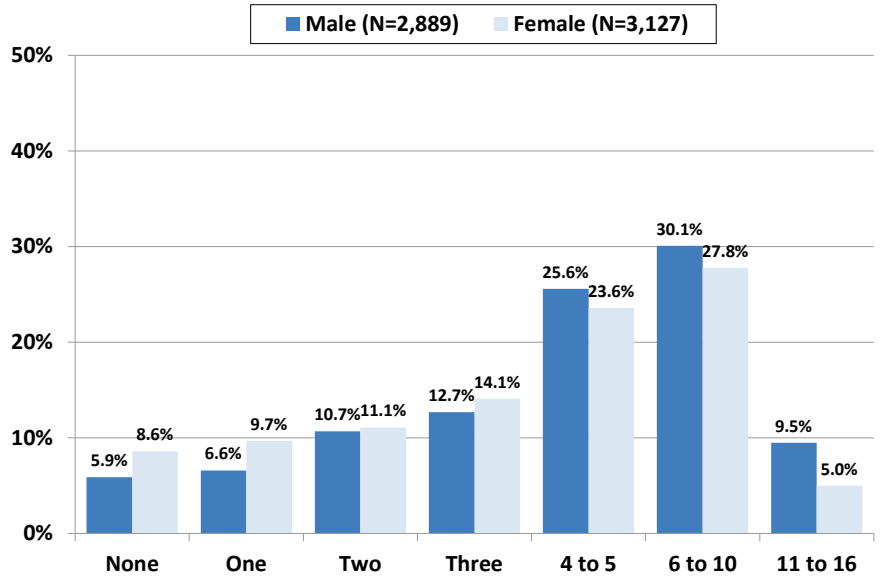
FIGURE 8-8: Number of Slogans Heard in Past 30 Days



Q20. Do you recall hearing or seeing the following slogans in the past 30 days?
Base: All Respondents
Unweighted N=6,016

Figure 8.9 shows the number of slogans that respondents reported hearing in the last 30 days by gender. Women reported hearing fewer slogans in the past 30 days than did the men. Two-thirds of men (66%) recognized 4 or more slogans, compared to 57% of women. Women were also more likely than men to mention that they heard no slogans (9% versus 6%) and only one slogan (10 versus 7%). However, the number of slogans that respondents reported hearing did not vary much by respondent gender.

FIGURE 8-9: Number of Slogans Heard in Past 30 Days, by Gender

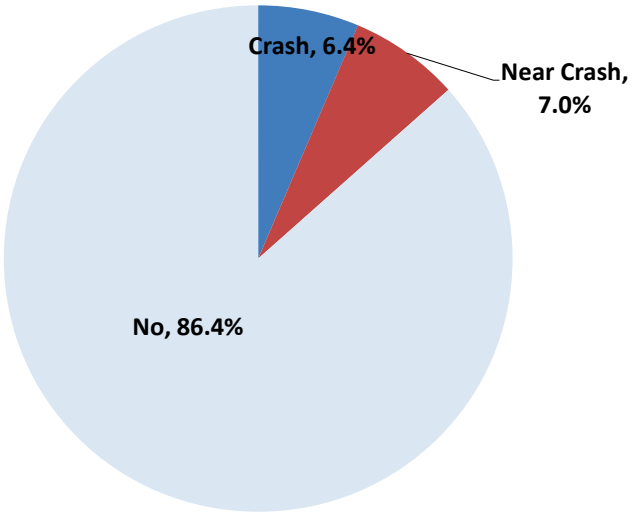


Q20. Do you recall hearing or seeing the following slogans in the past 30 days?
Base: All Respondents
Unweighted N=6,016

CHAPTER 9
DISTRACTED DRIVING CRASHES AND NEAR-CRASHES

Figure 9-1 shows the proportions of drivers by their involvement in vehicle crashes and near-crashes while driving a vehicle in the past year. Most drivers (86%) reported that they were not involved in any crash or near-crash events in the past year. However, 6% of drivers reported a crash involvement and 7% reported involvement in a near-crash.

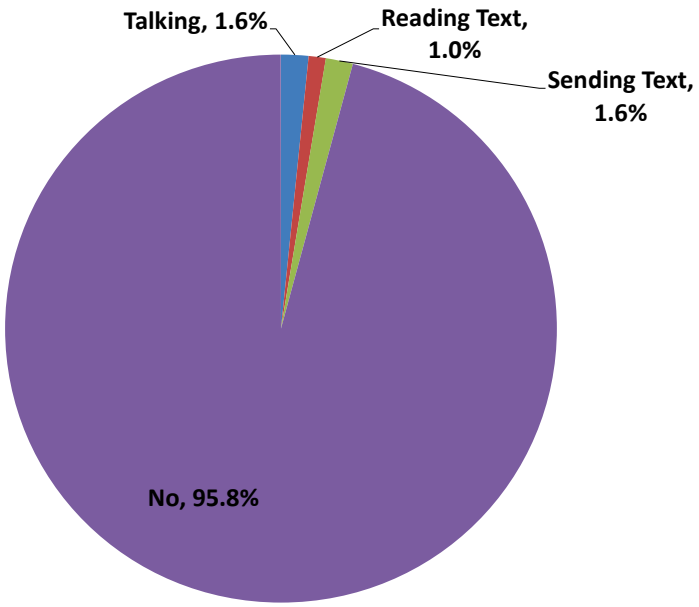
FIGURE 9-1: Had a Crash or Near-Crash in Past Year



Q21. Have you been involved in a crash or near-crash as a driver in the past year?
Base: All Respondents
Unweighted N=6,016

Of the respondents who were in at least one crash or near-crash in the past year, the overwhelming majority (96%) reported that they were not using a cell phone at the time of the incident. However, 4.2% were using their cell phone at the time of the crash or near-crash; 1.6% of these respondents reported that they were talking on a cell phone, 1.6% reported that they were sending a text message, and 1.0% reported that they were reading a text message.

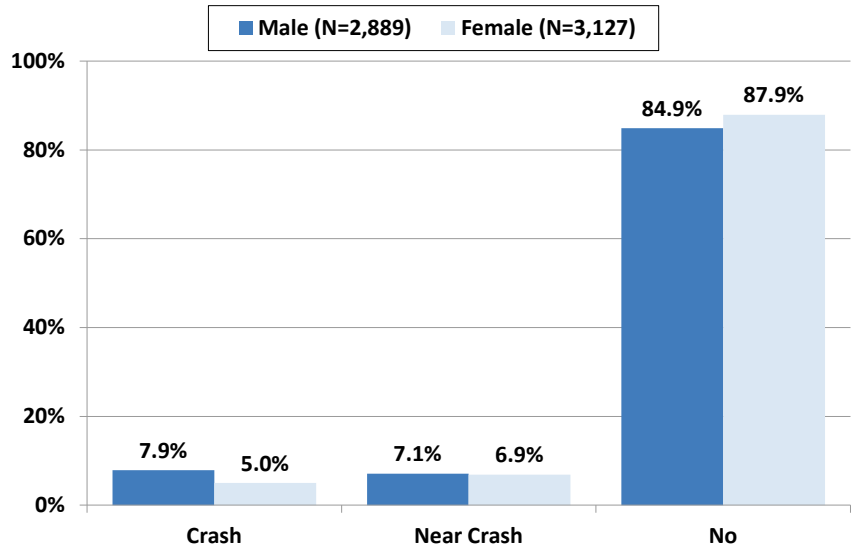
FIGURE 9-2: Using Cell Phone at Time of Most Recent Crash or Near-Crash



Q21a. Were you using a cell phone at the time of the LAST (crash/near-crash) you were in?
Base: Drivers who were in a crash or near-crash in the past year
Unweighted N=790

Figure 9-3 shows the frequency with which respondents reported having a crash or near-crash in the past year, according to the respondent gender. Overall, more men than women report being involved in a crash in the past year, with 8% of men and 5% of women reporting having had a crash in the past year. The proportion of male and female drivers reporting at least one near-crash in the past year is the same, with 7% of each group reporting being in a near-crash.

FIGURE 9-3: Had Crash or Near-Crash in Past Year, by Gender

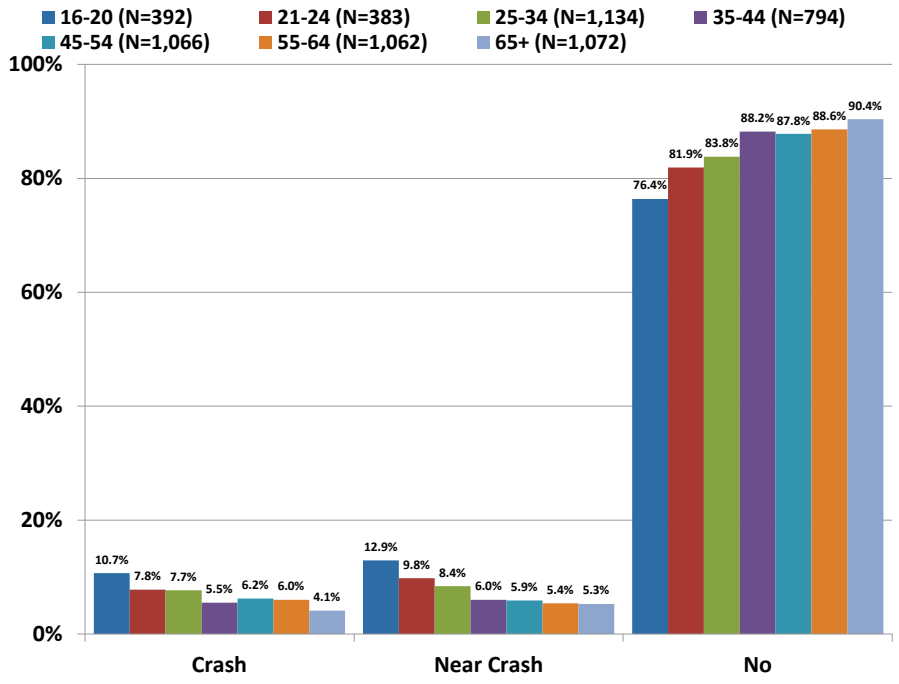


Q21. Have you been involved in a crash or near-crash as a driver in the past year?
Base: All Respondents
Unweighted N=See Chart

Figure 9-4 shows the proportion of each age group that reported having a crash, a near-crash or neither in the past 12 months. Overall, younger respondents are more likely to report a crash or near-crash event in the past 12 months than older respondents. Among respondents 16 to 20, 11% report being in a crash in the past year, as did 8% of respondents 21 to 24 and 25 to 34, 6% of respondents 35 to 44, 45 to 54 and 55 to 64, and 4% of respondents 65 and older.

Younger drivers also reported more near-crash involvement in the past 12 months, with approximately 1 in 10 respondents 16 to 20 (13%), 21 to 24 (10%), and 25 to 34 (8%) stating they were in a near-crash. Close to 1 in 20 respondents 35 to 44 (6%), 45 to 54 (6%), 55 to 64 (5%), and 65 and older (5%) reported being in a near-crash.

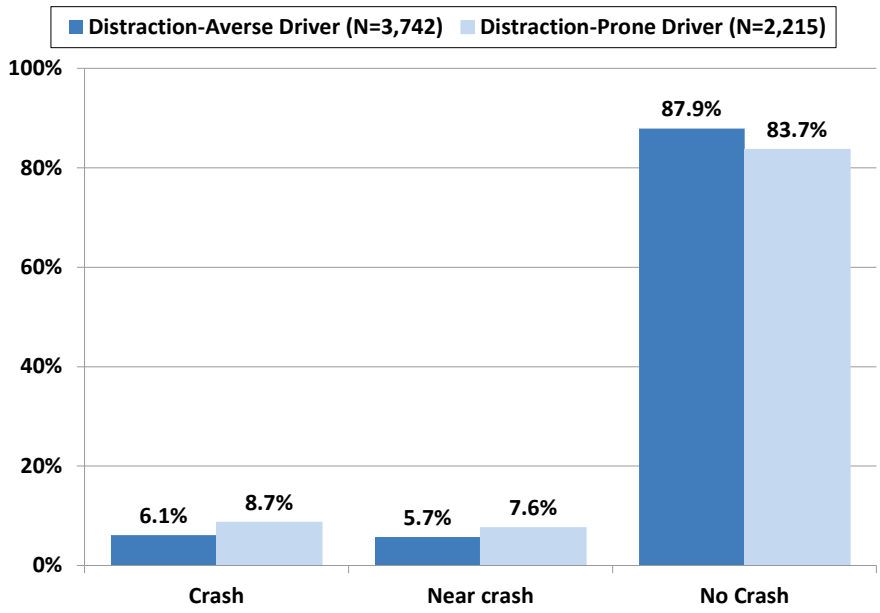
FIGURE 9-4: Had Crash or Near-Crash in Past Year, by Age



Q21. Have you been involved in a crash or near-crash as a driver in the past year?
Base: All Respondents
Unweighted N=See Chart

Figure 9-5 shows the proportion of drivers of each driver type reporting a crash, near-crash, or neither in the past 12 months according to their driver type. Among distraction-prone drivers, 17% were involved in a crash (9%) or near-crash (8%). Among distraction-averse drivers, 12% were involved in crash (6%) or near-crash (6%) incidents.

FIGURE 9-5: Had Crash or Near-Crash in Past Year, by Driver Type



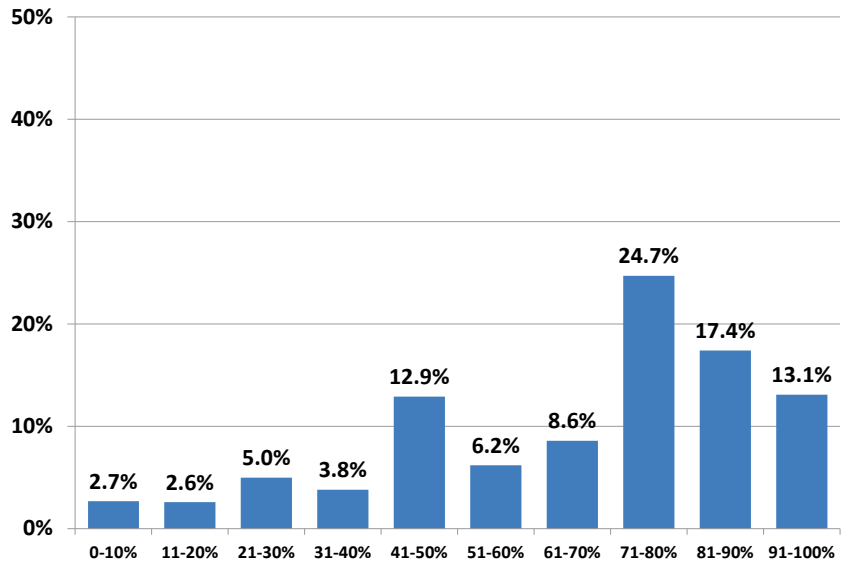
Q21. Have you been involved in a crash or near-crash as a driver in the past year?
Base: All drivers assigned a driver type
Unweighted N=See Chart

CHAPTER 10
PERCEPTIONS OF AND RESPONSES TO DISTRACTED DRIVING

Respondents were asked what percentage of drivers they believe talk on a cell phone at least occasionally while driving. Fully 70% of respondents believe that more than half of drivers talk on cell phones at least occasionally, with 30% of respondents believing that more than 80% of drivers do so.

See Figure 3-2, which indicates that 40% of respondents stated that they never answer their cell phones while driving and 60% stated that they answer their cell phones while driving at least occasionally (11% rarely, 21% sometimes, 17% almost always and 11% always).

FIGURE 10-1: Perception of Proportion of Drivers Talking on Phone While Driving

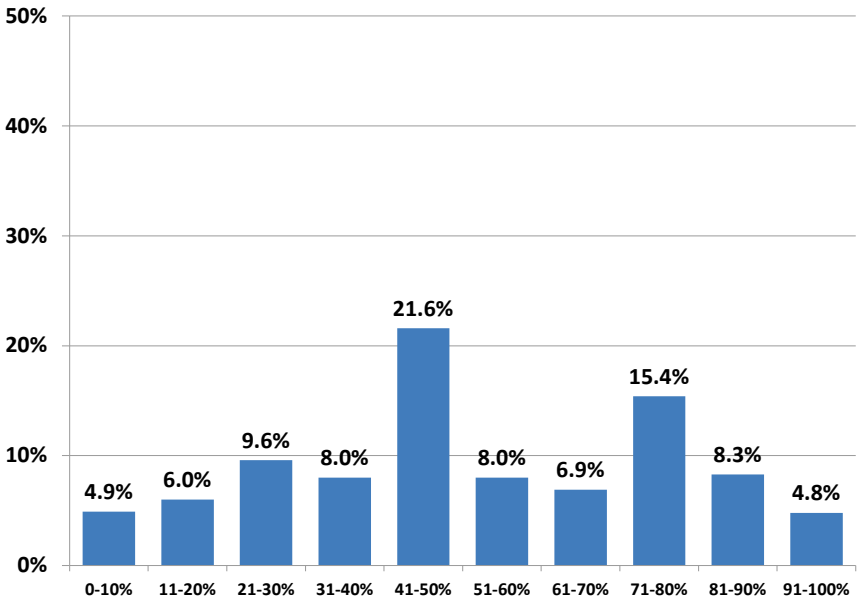


Q22. What percentage of drivers do you believe at least occasionally TALK on a cell phone while driving?
Base: All Respondents
Unweighted N=6,016

Respondents were asked what percentage of drivers they believe send text messages or e-mails on a cell phone at least occasionally while driving. More than two in 5 respondents (43%) think that more than half of drivers send electronic messages while driving.

See Figure 3-6 which indicates that, overall, the percentage of drivers who admit to sending text messages while driving is 14%.

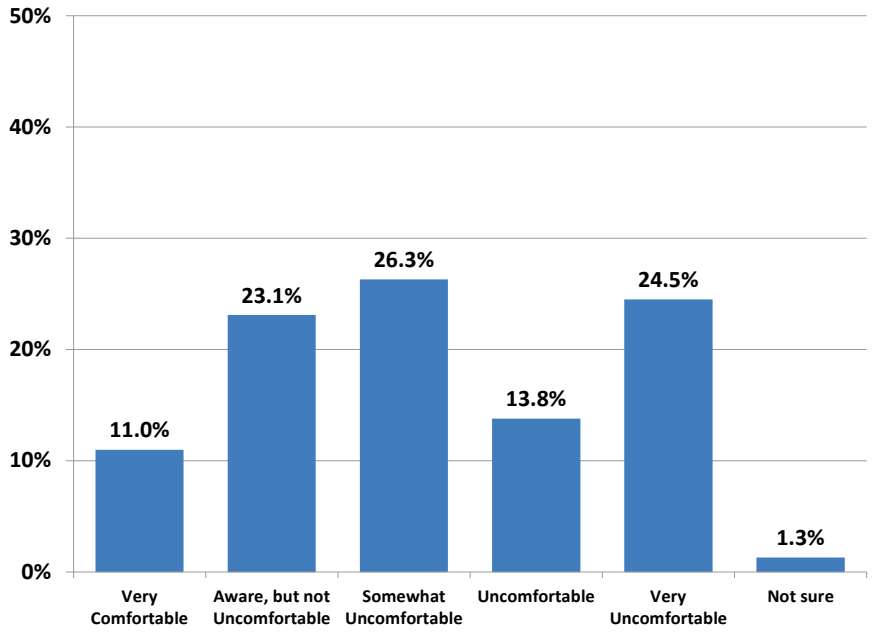
FIGURE 10-2: Perception of Proportion Sending Texts or E-Mails While Driving



Q22a. What percentage of drivers do you believe at least occasionally SEND TEXT MESSAGES OR E-MAILS on a cell phone while driving?
Base: All Respondents
Unweighted N=6,016

Respondents were asked about their comfort level when riding in a car as a passenger with a driver who is talking on a cell phone. Approximately one-third of respondents indicated that they would be comfortable, with 11% stating they would be very comfortable and 23% stating they would be aware but not uncomfortable. Two-thirds of respondents indicated some level of discomfort in this situation, with 26% stating that they would be somewhat uncomfortable, 14% indicating uncomfortable, and 25% stating that they would be very uncomfortable riding with a driver talking on the phone.

FIGURE 10-3: Comfortable Riding With a Driver Talking on the Phone

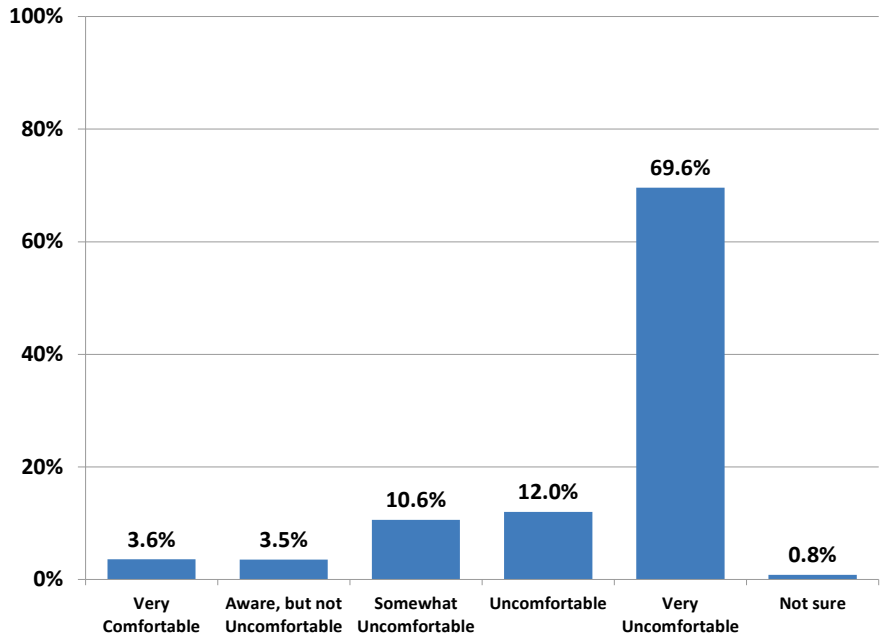


Q23. When riding as a passenger, how comfortable would you feel if your driver was TALKING on a cell phone while driving? [Read List]
Base: All Respondents
Unweighted N=6,016

Respondents were also asked how comfortable they would be riding in a car as a passenger with a driver sending text messages or e-mails. Most respondents (93%) indicated some level of discomfort, with 70% stating that they would be very uncomfortable, 12% stating that they would be uncomfortable, and 11% saying that they would be somewhat uncomfortable as a passenger in a car with the driver sending electronic messages. Only 8% of respondents indicated that they would be comfortable, including 4% who stated they would be very comfortable and 4% who stated they would be aware, but not uncomfortable in this situation.

Respondents reported discomfort more often at the prospect of being a passenger when the driver was sending text messages than they did at the prospect of being a passenger when the driver was talking on a cell phone.

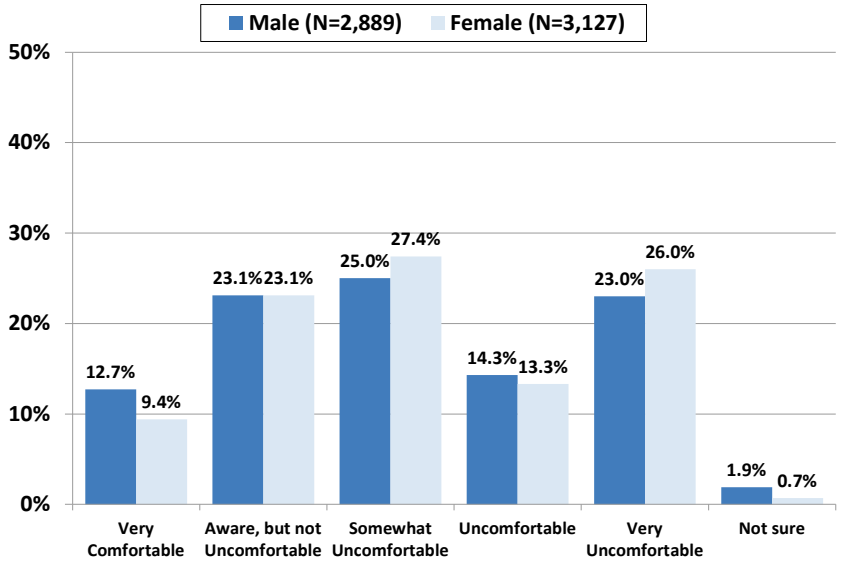
FIGURE 10-4: Comfortable Riding With Driver Sending Texts or E-mails While Driving



Q23a. When riding as a passenger, how comfortable would you feel if your driver was SENDING TEXT MESSAGES OR E-MAILS while driving? [Read List]
Base: All Respondents
Unweighted N=6,016

Figure 10-5 shows respondents' level of comfort riding in a car with a driver talking on a cell phone by respondent gender. Overall, men are more likely than women to state that they are very comfortable (13% versus 9%), while women are more likely than men to report being somewhat uncomfortable (27% versus 25%) or very uncomfortable (26% versus 23%). Two-thirds of women (66%) are at least somewhat uncomfortable with a driver talking on cell phones while the respondent is a passenger in the car, compared with 62% of men. While the majority of all respondents report discomfort with drivers talking on cell phones, men are somewhat more likely to report feeling comfortable than women.

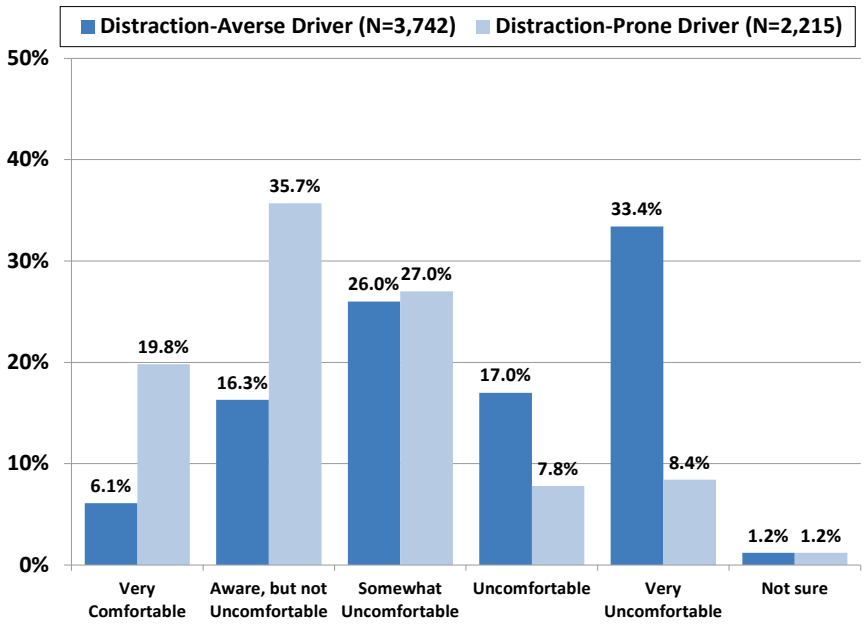
FIGURE 10-5: Comfortable Riding With a Driver Talking on the Phone, by Gender



Q23. When riding as a passenger, how comfortable would you feel if your driver was TALKING on a cell phone while driving? [Read List]
Base: All Respondents
Unweighted N=See Chart

Figure 10-6 shows respondents' level of comfort riding with a driver who is talking on a cell phone, according to the respondents' driver type. Overall, respondents who were classified as distraction-prone drivers were more likely to be comfortable with drivers talking on cell phones, while respondents classified as distraction-averse drivers were more likely to report discomfort. While only 6% of distraction-averse drivers stated that they would be very comfortable with the driver using a cell phone, 20% of distraction-prone drivers reported that they would be very comfortable. The largest difference between the comfort levels of distraction-prone and distraction-averse drivers was evident among those respondents who reported being very uncomfortable with a driver talking on a cell phone while driving, with 8% of distraction-prone drivers and 33% of distraction-averse drivers stating that this situation would make them very uncomfortable. Overall, distraction-averse drivers indicated more discomfort about being a passenger in a car in which the driver was using a cell phone, with 76% stating that they would be at least somewhat uncomfortable, while only 43% of distraction-prone drivers stated that they would be at least somewhat uncomfortable.

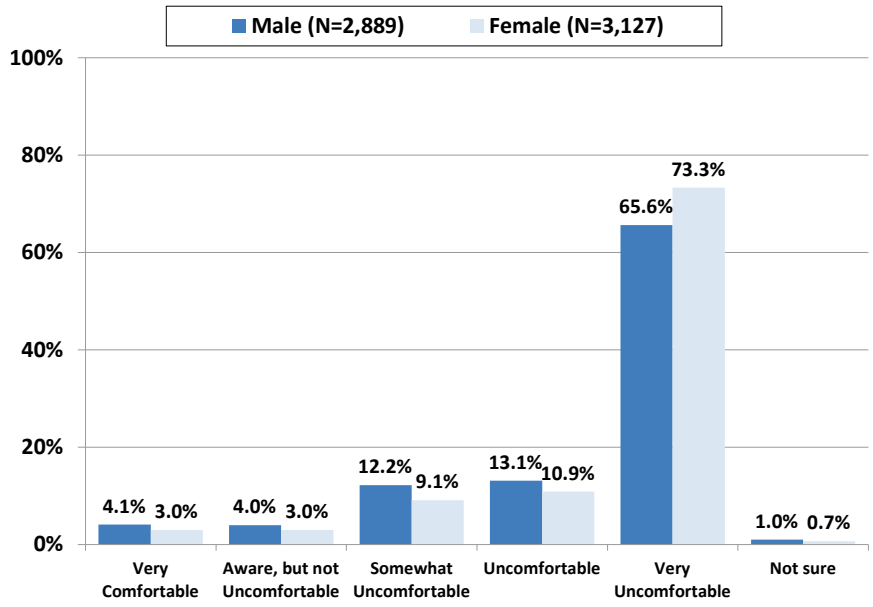
FIGURE 10-6: Comfortable Riding With a Driver Talking on the Phone, by Driver Type



Q23. When riding as a passenger, how comfortable would you feel if your driver was TALKING on a cell phone while driving? [Read List]
Base: All Respondents assigned a driver type
Unweighted N=See Chart

Figure 10-7 shows respondents' comfort level as a passenger in a car with a driver sending text messages or e-mails according to the respondents' gender. The vast majority of both genders reported some level of discomfort with drivers sending electronic messages while driving, but women were more likely to report extreme discomfort than men. Overall, 91% of men and 93% of women reported feeling at least somewhat uncomfortable. While 66% of men reported feeling very uncomfortable with the driver sending electronic messages while driving, 73% of women reported feeling very uncomfortable.

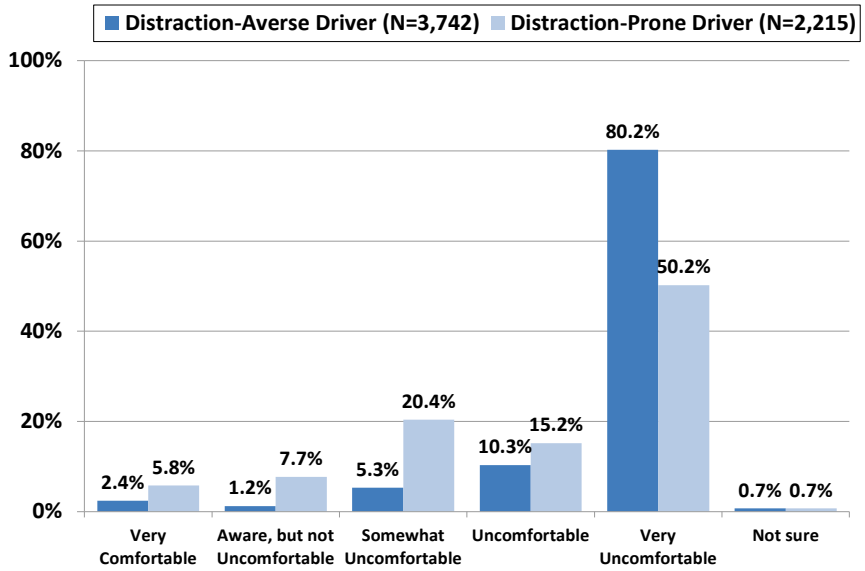
FIGURE 10-7: Comfortable Riding With a Driver Sending Texts or E-mails, by Gender



Q23a. When riding as a passenger, how comfortable would you feel if your driver was SENDING TEXT MESSAGES OR E-MAILS while driving? [Read List]
Base: All Respondents
Unweighted N=See Chart

Figure 10-8 shows respondents' comfort level riding with a driver who is sending electronic messages by driver type. Respondents who were classified as distraction-averse drivers were more likely than distraction-prone drivers to indicate extreme discomfort at the prospect of their driver sending text messages or e-mails while driving. While only half of distraction-prone drivers (50%) stated that they would be very uncomfortable, 80% of distraction-averse drivers stated that they would be very uncomfortable. The overwhelming majority of both distraction-averse (96%) and distraction-prone (86%) drivers indicated that they would be at least somewhat uncomfortable in this situation.

FIGURE 10-8: Comfortable Riding With a Driver Sending Texts or E-mails, by Driver Type



Q23a. When riding as a passenger, how comfortable would you feel if your driver was SENDING TEXT MESSAGES OR E-MAILS while driving? [Read List]
Base: All Respondents assigned a Driver Type
Unweighted N=See Chart

CHAPTER 11

TREND ANALYSIS

As noted earlier, this document presents the results of the second NHTSA National Survey on Distracted Driving Attitudes and Behaviors. The first such study was conducted in 2010. Comparing responses to questions that appeared in both 2010 and 2012 provides insight into how distracted driving behaviors and attitudes have changed in the past 2 years.

Both surveys asked respondents how often they engage in a set of specific activities while driving. Overall, respondents reported always or almost always engaging in these activities at similar rates from 2010 to 2012. In 2010 and 2012, approximately half of respondents (52% in 2010 and 49% in 2012) stated that they talked to other passengers in the vehicle while driving. In 2010, 14% of respondents reported eating or drinking while driving, while in 2012 this percentage was 11%. In 2010, 15% of respondents reported making or accepting phone calls, and in 2012, 12% of respondents reported doing so. The largest difference between reported behaviors in 2010 and 2012 is for adjusting car radios, with 34% of respondents doing so in 2010 and 27% of respondents doing so in 2012. The next largest difference is using a portable music player with external speakers. In 2010, 15% of respondents report that they used this system, while 10% of respondents did so in 2012. Respondents in 2010 were slightly more likely than respondents in 2012 to use a navigation system while driving, with 10% of respondents stating that they did so in 2010 and 8% reported using this type of system while driving in 2012. The rate of participation in behaviors such as personal grooming, using a music player with headphones, or using their phone for directions while driving changed very little between 2010 and 2012.

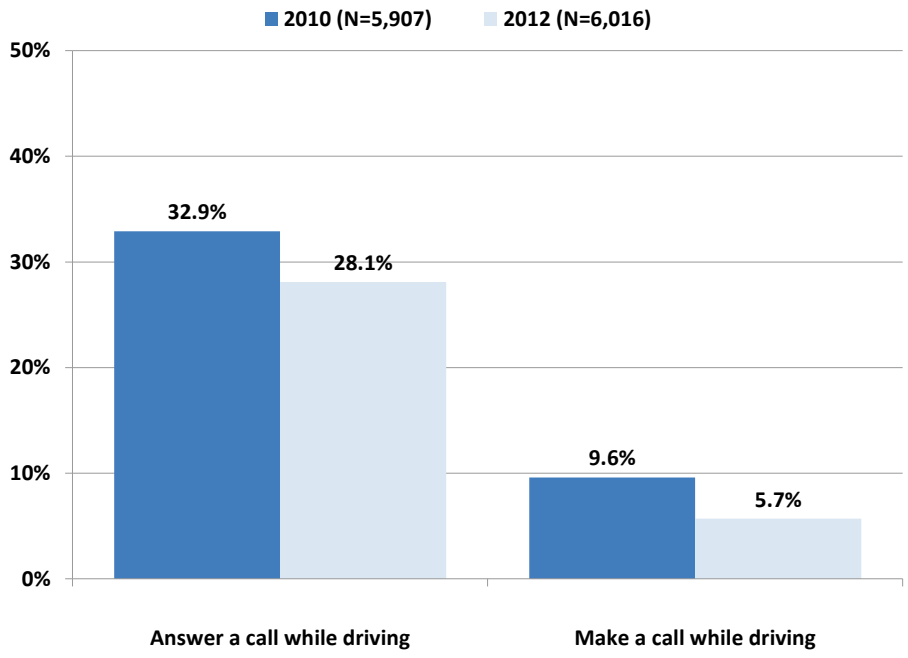
Table 11-1. Engaging in Distracted Driving Activities (Always or Almost Always)

	2010 (N=5,907)	2012 (N=6,016)
a. Talk to other passengers in the vehicle	52%	49%
b. Eat or drink	14%	11%
c. Make or accept phone calls	15%	12%
d. Read, such as a book, newspaper, iPad, or Kindle	0%	1%
e. Read e-mails or text messages	3%	3%
f. Send text messages or e-mails	2%	2%
h. Do personal grooming	2%	2%
i. Adjust the car radio	34%	27%
j. Change CDs, DVDs, or tapes	6%	5%
k. Use a portable music player with headphones on	1%	2%
l. Use a portable music player with external speakers	15%	10%
m. Use a smartphone for driving directions	5%	5%
n. Use a navigation system for driving directions	10%	8%

2010 – Q5. I'm going to read a list of activities, and for each I'd like you to tell me how often YOU do each while driving? For each, please tell me if you do the activity on all driving trips, on most driving trips, on some driving trips, rarely, never? How often do you…
2012 – Q4. I'm going to read a list of activities, and for each I'd like you to tell me how often YOU do each while driving? For each, please tell me if you do the activity always, almost always, sometimes, rarely, or never? How often do you…
2010 Base: Respondents who drive at least a few times a year
2012 Base: All Respondents

Both surveys asked about respondents' willingness to answer or initiate cell phone calls while driving. Figure 11-1 shows how often respondents in 2010 and 2012 reported always or almost always answering a call while driving, as well as making a call while driving. The percentage of drivers who are always or almost always willing to answer a call on their cell phone while driving decreased from 2010 to 2012 with 33% of drivers in 2010 and 28% of drivers in 2012 stating that they are willing to do so. There was also a slight decrease in the percentage of drivers willing to initiate a call between 2010 and 2012. In 2010, 10% of respondents were always or almost always willing to make a call while driving. In 2012, this percentage decreased to 6%.

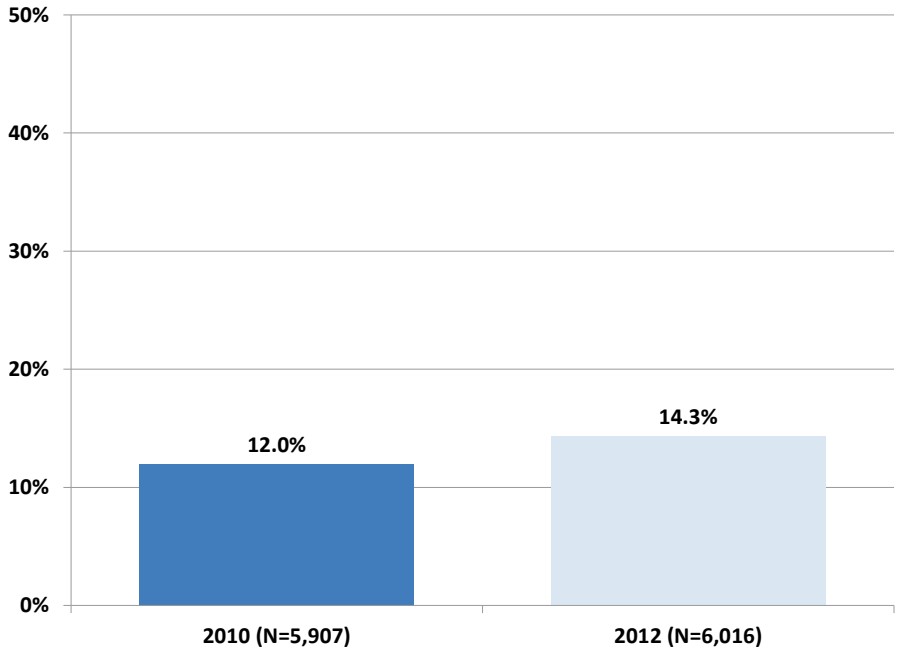
FIGURE 11-1: Answering a Call While Driving and Making a Call While Driving – Always and Almost Always



2010 – Q8a. When you RECEIVE a phone call while you are driving, how often do you ANSWER the call?
2012 – Q5a. When you RECEIVE a phone call while you are driving, how often do you ANSWER the call?
2010 – Q9a. When you are driving, how often are you willing to MAKE a phone call?
2012 – Q6a. When you are driving, how often are you willing to MAKE a phone call?
2010 Base: All Respondents
2012 Base: All Respondents
Unweighted N=See chart

There was a small increase in the proportion of drivers sending text messages when driving between the two years compared in this report. When asked if they ever send text messages or e-mails while driving, 12% of respondents in 2010, and 14% of respondents in 2012 state that they do so.

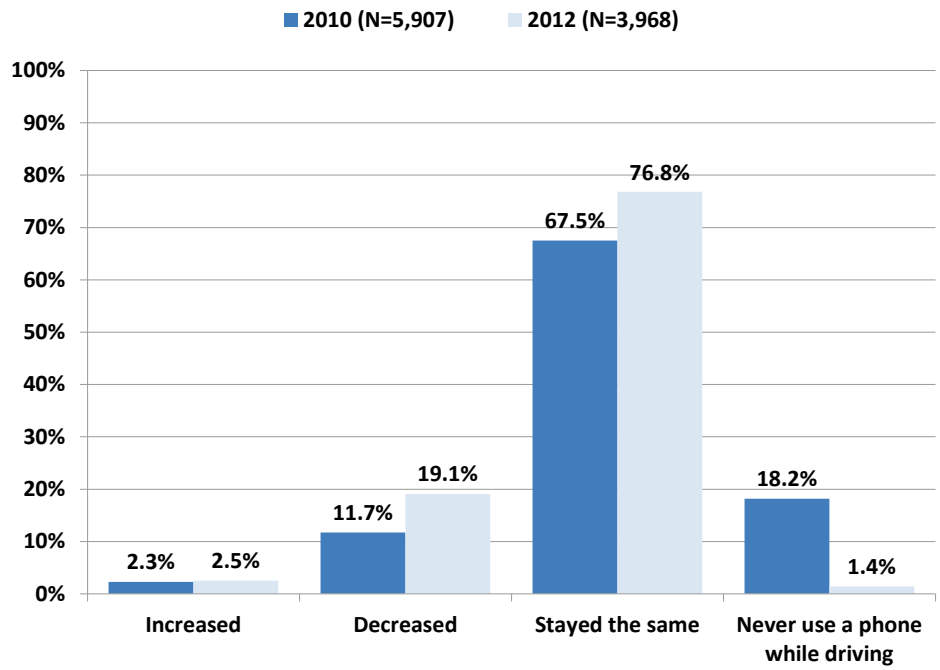
FIGURE 11-2: Do You Send Text Messages or E-mails While Driving – % Yes



2010 – Q12. Do you ever SEND text messages or e-mails when you are driving?
2012 – Q9. Do you ever SEND text messages or e-mails when you are driving?
2010 Base: All Respondents
2012 Base: All Respondents
Unweighted N=See chart

Figure 11-3 shows the response distribution in both surveys to a question that asked about changes in frequency of initiating or taking cell phone calls while driving in the past 30 days. In both 2010 and 2012, most respondents reported that the rate at which they use a cell phone had stayed the same (68% in 2010 and 77% in 2012). In 2012, 19% of respondents stated that the rate at which they made and received calls decreased in the past 30 days, while in 2010, 12% reported a decrease in their rate of making and receiving cell phone calls. The percentage of respondents who reported never using phones while driving was 18% in 2010. This percentage dropped sharply to only 1% of respondents in 2012.

FIGURE 11-3: Has Your Frequency of Making and Receiving Phone Calls While Driving Increased, Decreased, or Stayed the Same

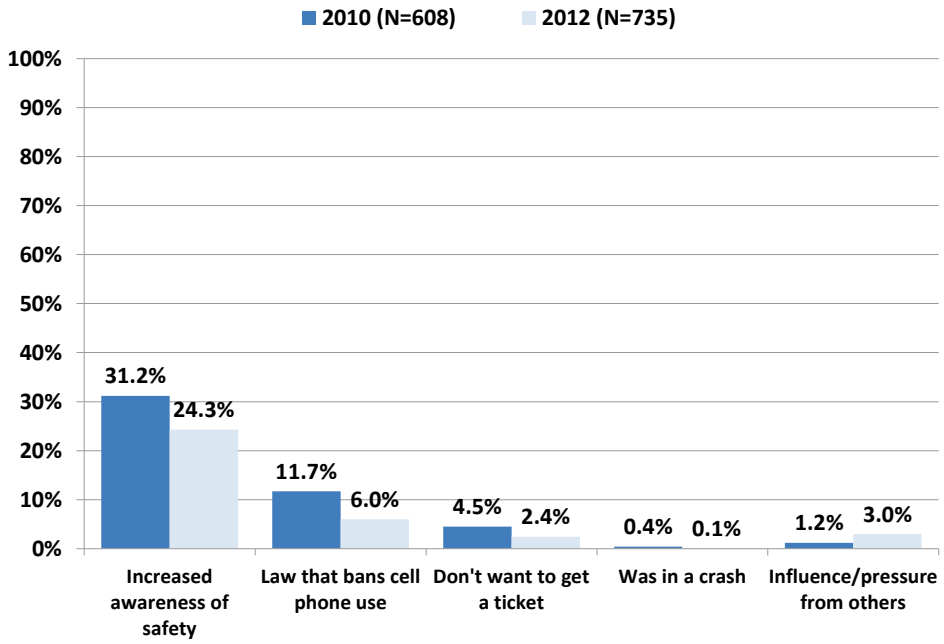


2010 – Q19. In the past 30 days, has your frequency of making and receiving phone calls while driving increased, decreased, or stayed the same?
2012 – Q15. In the past 30 days, has your frequency of making and receiving phone calls while driving increased, decreased, or stayed the same?
2012 Base: Respondents who drive at least a few days a year
2012 Base: Respondents who make or accept phone calls while driving at least some of the time
Unweighted N=See chart

In both 2010 and 2012, respondents who reported that the frequency with which they make and receive phone calls had decreased in the past 30 days were asked what caused the rate to decrease. The most common answer from respondents in both 2010 and 2012 was an increased awareness of safety (31% in 2010 and 24% in 2012), followed by a law that bans cell phone usage (12% in 2010 and 6% in 2012), and not wanting to get a ticket (5% in 2010 and 2% in 2012).

While only 1% of respondents in 2010 reported that pressure from others led them to make and receive fewer calls, 3% of respondents in 2012 mentioned the influence of others as a reason for making and receiving fewer calls.

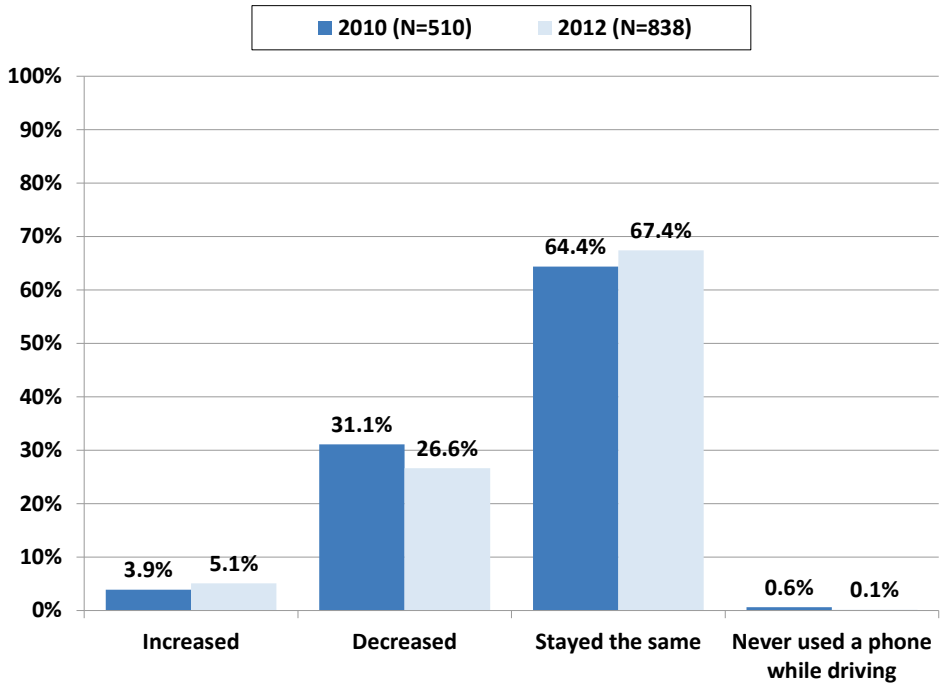
FIGURE 11-4: Reasons for Decrease in Making and Receiving Phone Calls While Driving



2010 – Q19a. What caused your frequency of making and receiving phone calls while driving to decrease? [Multiple Record]
2012 – Q15a. What caused your frequency of making and receiving phone calls while driving to decrease? [Multiple Record]
Base: Respondents who report a decrease in the frequency with which they make or receive calls while driving in the last 30 days
Unweighted N=See chart

In both 2010 and 2012, respondents who indicated that they had ever sent or received a text message or e-mail while driving were asked if the frequency with which they send and receive text messages or e-mails in the past 30 days had changed. In both 2010 and 2012, most respondents reported that the rate at which they send electronic messages had stayed the same (64% in 2010 and 67% in 2012). In 2010, 31% of respondents reported a decrease in the rate at which they send electronic messages, while in 2012, 27% of respondents reported a decrease. The percentage of respondents who reported an increase was 4% in 2010 and 5% in 2012. In both 2010 and 2012, less than 1% of respondents stated that they never use a phone while driving when asked this follow up question about sending or receiving electronic messages.

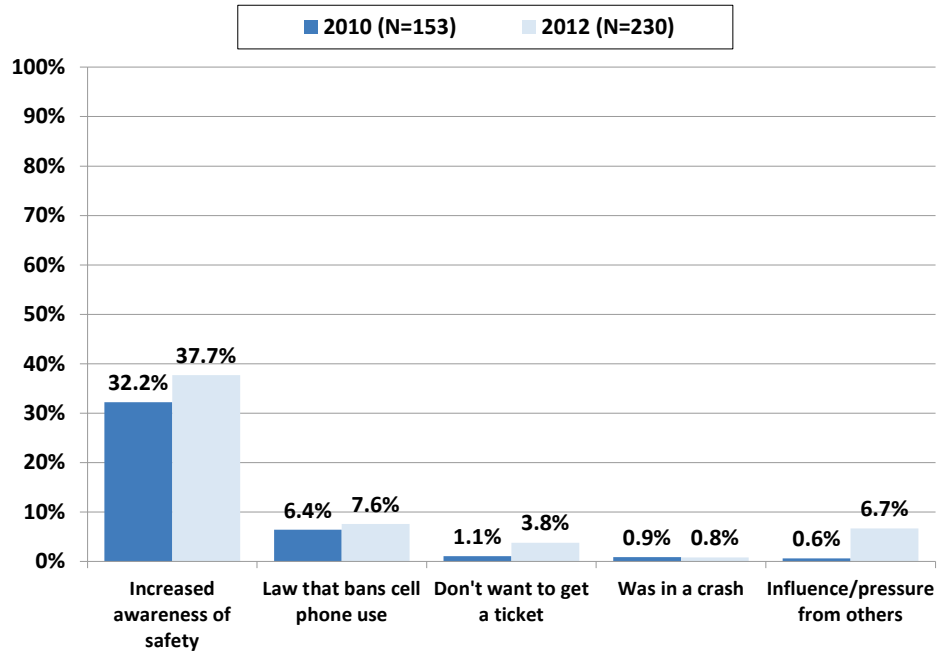
FIGURE 11-5: Has Your Frequency of Sending and Receiving Text Messages or E-mails While Driving Increased, Decreased, or Stayed the Same



2010 – Q19b. In the past 30 days, has the frequency with which you send and receive text messages or e-mails while driving increased, decreased, or stayed the same?
2012 – Q15b. In the past 30 days, has the frequency with which you send and receive text messages or e-mails while driving increased, decreased, or stayed the same?
Base: Respondents who have ever sent or received a text message or e-mail while driving
Unweighted N=See chart

In 2010 and 2012, respondents who reported sending or receiving fewer electronic messages while driving in the past 30 days were asked what caused this decrease. The most common answer from respondents in both 2010 and 2012 was an increased awareness of safety (32% in 2010 and 38% in 2012), followed by a law that bans cell phone use (6% in 2010 and 8% in 2012). In 2012, there was an increase in the number of respondents who cited not wanting to get a ticket and pressure from others as reasons for their decrease in sending or receiving electronic messages while driving (1% for both in 2010 and 4% and 7%, respectively, in 2012).

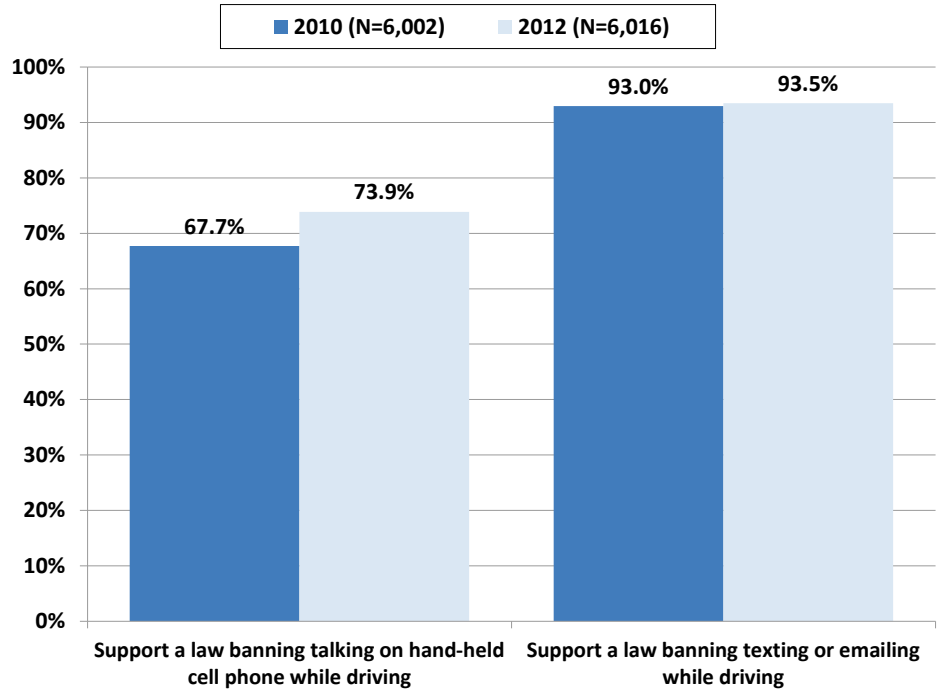
FIGURE 11-6: Reasons for Decrease in Sending and Receiving Text Messages While Driving



2010 – Q19c. What caused the frequency with which you send and receive text messages or e-mails while driving to decrease? [Multiple Record]
2012 – Q15c. What caused the frequency with which you send and receive text messages or e-mails while driving to decrease? [Multiple Record]
Base: Respondents who report a decrease in the frequency with which they send or receive text messages or e-mails while driving in the last 30 days
Unweighted N=See chart

Both surveys asked respondents if they support a law banning talking on a hand-held cell phone while driving. Support for such laws increased between 2010 and 2012 from 68% in 2010 to 74% in 2012. In both 2010 and 2012, an overwhelming majority of respondents supported laws banning texting or e-mailing while driving, with 93% of respondents in 2010 and 94% in 2012 supporting such laws.

FIGURE 11-7: Do You Support a Law Banning Talking on a Hand-Held Cell Phone While Driving, or a Law Banning Texting or E-mailing While Driving? – % Yes

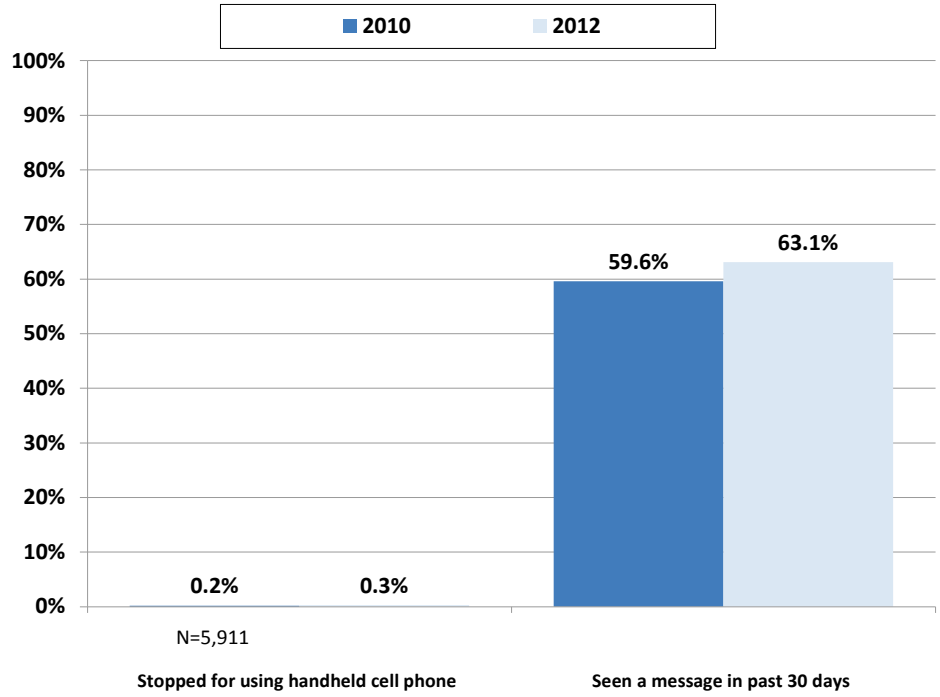


2010 – Q21. Do you support a State law banning talking on a hand-held cell phone while driving?
2012 – Q17. Do you support a State law banning talking on a hand-held cell phone while driving?
2010 – Q21b. Do you support a State law banning texting or e-mailing while driving?
2012 – Q17b. Do you support a State law banning texting or e-mailing while driving?
Base: All respondents
Unweighted N=See chart

In both surveys, respondents were asked whether they had been stopped by police in the past 30 days for using a cell phone while driving and whether they had seen or heard an educational message that discourages cell phone-related distracted driving in the past month. Overall, there was little change over the two years in the percentage of respondents who reported being stopped for using a cell phone while driving, while the percentage of respondents who reported seeing or hearing a message that discourages cell phone-related distracted driving increased over time.

In both 2010 and 2012, less than 1% of respondents reported being stopped by police in the past 30 days for using a hand-held cell phone while driving. In 2010, 60% of respondents reported that in the past 30 days they had seen a message that discourages drivers from talking on phones or sending electronic messages while driving, while in 2012, 63% of respondents reported seeing such messages.

FIGURE 11-8: Was Respondent Stopped by Police for Using a Hand-held Cell Phone While Driving in Past 30 Days, Percentage of Respondents Exposed to Messages Discouraged Distracted Driving – % Yes



2010 – Q22b. Were you personally stopped by police for using a hand-held cell phone while driving in the past 30 days?
2012 – Q18b. Were you personally stopped by police for using a hand-held cell phone while driving in the past 30 days?
2010 – Q23. Now, I would like to ask you a few questions about educational or other types of activities. In the past 30 days, have you seen or heard any messages that encourage people not to talk on phones or send electronic messages while driving? This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.
2012 – Q19. Now, I would like to ask you a few questions about educational or other types of activities. In the past 30 days, have you seen or heard any messages that encourage people not to talk on phones or send electronic messages while driving? This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.
Base: All respondents
Unweighted N=See chart

CONCLUSION

The 2012 National Survey on Distracted Driving Attitudes and Behaviors is the second in a series of national studies conducted by NHTSA to assess the attitudes and behaviors toward distracted driving in the United States and to increase the understanding of this behavior to inform the development of effective countermeasures and interventions. Telephone interviews were conducted with more than 6,000 drivers across the United States, and the responses were weighted to represent the driving population of the United States

This survey differed from the first NSDDAB conducted in 2010 in that a driver typology classifying drivers by their behavioral tendencies toward distracted driving was used to examine some of the behaviors and attitudes. Cluster analysis of 10 questions concerned with distracted driving behavior classified 99% of the respondents into two distinct groups, labeled *distraction-prone* and *distraction-averse*. Of those respondents classified, 33% were classified as distraction-prone drivers and 67% were classified as distraction-averse drivers. In terms of demographics, the distraction-prone drivers tend to be younger, more affluent, with more formal education than distraction-averse drivers. There was no relationship with gender, and men and women were about equally likely to be classified as distraction-prone or distraction-averse.

Overall, 91% of respondents own cell phones, with 99% of distraction-prone drivers and 86% of distraction-averse respondents reporting owning a cell phone. Cell phone use while driving is widespread. Nearly half of drivers answer their cell phone at least some of the time when driving, and 58% of these drivers continue to drive as they engage in the phone conversation. Almost a quarter of drivers (24%) are at least sometimes willing to make a phone call while driving. Of these drivers, many have to take their eyes off the road at least momentarily to initiate the call because 43% of them often manually enter the phone number and 42% often scroll through entered numbers to make a selection.

A large portion of drivers does not believe that their driving performance is affected by cell phone use. Half (50%) of drivers who talk on cell phones while driving believe that there is no difference in their driving while on or off the cell phone. On the other hand, 38% of drivers do notice deterioration in their driving performance. Eighteen percent state that they tend to drive more slowly when on cell phones, 17% say that they are more distracted and not as aware, and 3% say that they drift out of their lane or drive erratically. Interestingly, 5% of drivers believe that they are more focused and pay more attention to driving when they are on the phone.

Respondents' perceptions of the safety of cell phone-distracted driving are different when they are not drivers, but rather passengers in a car driven by someone who is talking on a cell phone. Overall, 66% of respondents would feel very or somewhat unsafe if their driver was talking on a hand-held cell phone while driving. Two-thirds (66%) of respondents stated that they would be very or somewhat likely to do or say something to the driver if he/she was talking on a cell phone.

Distraction-averse people were much more likely to feel very unsafe as passengers in a car driven by someone who was talking on a cell phone than the distraction-prone people, with 55% of the distraction-averse stating that would feel very unsafe in this situation, compared to 17% of distraction-prone people. Conversely, 21% of distraction-prone people and only 5% of distraction-averse people said they would feel safe if their driver was talking on a hand-held phone while driving. Distraction-averse respondents were also more likely to intervene than respondents classified as distraction-prone. Among distraction-averse respondents, 72% stated they would intervene compared to 57% of distraction–prone respondents.

Sending text messages or e-mails is not as widespread among drivers as talking on the cell phone while driving. Almost 80% of respondents stated that they never send text messages or e-mails while driving, while 10% reported that they send text messages at least sometimes and 11% reported that they rarely do. Of drivers who send electronic messages, 44% stated that they wait until they reach a stop light to send the text message and 35% continue to drive. One-third of drivers who send text messages or e-mails while driving believe that there is no difference in their driving compared to times when they are not texting. However, 24% reported they are distracted and not as aware, 21% reported that they drive more slowly, and 11% reported that they tend to drift out of their lane of travel.

A large majority of respondents reported that they would feel very unsafe if their driver was sending e-mails or text messages (86%), or reading e-mails or text messages (85%). The majority of respondents (87%) said that they would be very likely or somewhat likely to do or say something to the driver if the driver was sending text messages or e-mails. Distraction-averse respondents were more likely than distraction-prone respondents to report feeling unsafe. Almost all distraction-averse drivers (95%) reported they would feel very unsafe if their driver was sending e-mails or text messages, compared to 68% of distraction-prone drivers. Distraction-averse respondents were also more likely to say they would intervene if their driver was sending text messages or e-mails while driving. Of respondents classified as distraction-averse drivers, 90% stated that they would be very or somewhat likely to intervene if their driver was sending e-mails or text messages, compared to 81% of respondents classified as distraction-prone drivers.

Few respondents reported involvement in crashes or near-crashes in the past year. In all, 6% of drivers reported a crash and 7% reported a near-crash in the past year. Of these events, 2% involved cell phone distractions, and 3% involved distractions from sending or reading text messages.

Respondents perceived distracted driving behaviors like talking on a cell phone while driving to be fairly prevalent, with 70% of respondents estimating that more than half of drivers talk on the cell phone at least occasionally. However, respondents perceived texting while driving to be a less frequent occurrence, with 43% of respondents estimating that more than half of drivers send electronic messages while driving.

The majority of respondents support laws banning talking on hand-held cell phones and texting or e-mailing while driving. Almost three-quarters of respondents (74%) support a ban on cell phone use while driving and 94% support a law banning texting or e-mailing while driving. Support for a hand-held cell phone ban law is higher among distraction-averse drivers than among distraction-prone drivers (82% versus 60%, respectively).

Respondents are generally aware of laws that ban talking on cell phones or texting while driving in their state when the State in which the respondent is located has a law, but respondent perceptions are less accurate when asked about such laws when there is no law in the State. In States with laws that ban hand-held cell phone use while driving, 88% of drivers were aware of the law and an additional 5% thought the State probably had such a law, while only 4% incorrectly thought their State did not have such a law. In States without laws that ban talking on cell phones while driving, 42% knew that their State did not have such a law, while 28% incorrectly thought that their State had such a law and an additional 11% thought the State probably had such a law, when it did not.

In States that ban sending or reading text messages and e-mails while driving, 65% of drivers knew about the law and an additional 11% thought the State probably had such a law, while only 8% incorrectly thought their State did not have such a law. In States without laws that ban sending and receiving text messages and e-mails while driving, 29% were aware that their State did not have such a law, while 37% incorrectly thought that their State had a law and an additional 12% thought the State probably had such a

law, when it did not. Among all respondents, 17% were not sure whether their State had a law banning texting while driving.

Although 10 States have laws banning the use of hand-held cell phones while driving, most respondents who reside in these States were not aware of any special enforcement efforts, and respondents were about equally split on whether offenders of the law will be ticketed.

Most respondents in States with laws banning forms of cell phone use while driving were not aware of any special enforcement programs. One in 5 respondents (20%) reported that they were aware of a special effort to ticket drivers using cell phones while driving, and an additional 3% were unsure.

Overall, 52% of respondents who reported living in a State with laws banning some form of cell phone use while driving thought a driver who regularly talks on a cell phone while driving was likely to get a ticket in the next 6 months, while 44% stated that it was unlikely that the driver would be ticketed. There was little difference between distraction-prone and distraction-averse drivers in this belief. However, drivers with less formal education were more likely to believe that the driver would be ticketed, while those with more formal education were more likely to believe that the driver would not be ticketed.

Just over half of respondents (53%) who reported living in a State with laws banning texting or e-mailing believed that it was at least somewhat likely that drivers who frequently sends text messages or e-mails while driving would get a ticket for this infraction in the next 6 months; 43% think it is at least somewhat unlikely. Overall, there was little difference in this perception by driver type.

Safe driving messages are reaching drivers, with 63% reporting that they had seen or heard a message discouraging distracted driving in the past 30 days. Drivers who drove every day were more likely than those who drove less frequently to report having seen or heard these messages, and distraction-averse people were more likely than distraction-prone respondents to report hearing or seeing these messages. The media sources for these messages were TV, reported as the source by 72% of respondents, billboards as reported by 27% of respondents, and radio as reported by 30% of respondents.

Although 93% of respondents reported having heard or seen at least one safe driving slogan in the past 30 day, most of the individual messages associated with cell phone distracted driving are reaching about 1 in 5 drivers. Approximately 20% of respondents report hearing or seeing " No Phone Zone", "Just Drive", "One Text or Call Could Wreck It All", "On the Road, Off the Phone", and 1 in 10 report seeing or hearing " Phone in One Hand, Ticket in the Other" and "Put It Down" in the past 30 days.

While the majority of drivers (77% and 67%) who talk on cell phones or send text messages when driving state that the frequency of these behaviors has not changed in the past 30 days, some respondents reported decreases. Nineteen percent of the cell phone users stated that there was a decrease in their talking on cell phone while driving and 27% of those who text and drive also reported a decrease. An increased awareness of safety was cited by 24% in the first group and 38% in the second group as the reason for these decreases. Influence and pressure from others was also cited.

There were few changes in attitudes and behaviors concerned with distracted driving between 2010 and 2012. The rates of talking with passengers while driving, eating or drinking while driving, and reading (books, newspapers, iPods) while driving stayed essentially the same. The proportion of respondents who always or almost always answer the phone decreased between 2010 and 2012. In 2010 and 2012, 33% and 28% of respondents, respectively, answered an incoming call. The percentage of respondents always or almost always initiating phone calls decreased from 10% in 2010 to 6% in 2012.

The percentage of drivers who send text messages while driving increased slightly from 12% in 2010 to 14% in 2012. However, the proportion of drivers who always send or read text messages while driving remained the same at approximately 1%.

Approximately 3 in 5 drivers in both 2010 and 2012 reported having seen or heard at least one public information or educational message discouraging talking on cell phones or sending text messages or e-mails while driving in the past 30 days.

Support for laws banning hand-held cell phone use increased from 68% of all respondents in 2010 to 74% in 2012. Support for laws banning texting or e-mailing remained about the same with 93% of respondents in 2010 and 94% of respondents in 2012 supporting such a law.

Although the rates of engaging in various distracting activities while driving varied slightly from 2010 to 2012, there was little change in the proportion of respondents reporting these behaviors. Approximately half of respondents (52% in 2010 and 49% in 2012) stated that they always or almost always talked to passengers while driving. In 2010, 14% of respondents reported always or almost always eating or drinking while driving, while in 2012, this percentage was 11%. In both 2010 and 2012, approximately 1% of respondents reported always or almost always reading and driving.

In both 2010 and 2012, when asked if their rates of talking on the cell phone while driving or texting and driving had changed in the past 30 days, most drivers who engaged in these activities, indicated that the rates of these activities remained the same. Declines in cell phone conversations while driving were reported by 12% of respondents in 2010 and 19% in 2012. Among these drivers, increased awareness of safety was the reason most often cited (by 31% in 2010 and 24% in 2012). Decreases in texting in the last 30 days were reported by 31% of respondents in 2010 and 27% of respondents in 2012. Among these drivers, reasons given for the decrease were an increased awareness of safety (32% in 2010 and 38% in 2012), the law (6% in 2010 and 8% in 2012), and influence and pressure from others (1% in 2010 and 7% in 2012).

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Appendix A
Questionnaire

5460 NHTSA Distracted Driving
Abt SRBI
March 14, 2012
V1.7

2012 National Survey of Distracted Driving Attitudes and Behaviors
Questionnaire

Sample Read-ins:
State [sampstat]
Metro Status
Telephone number

INTRODUCTION – SCREENING QUESTIONS

QLAN WHICH LANGUAGE INTERVIEW CONDUCTED IN

1 English
2 Spanish

5460C: CELL SAMPLE
SC1 Hello, I am _____ calling on behalf of the U.S. Department of Transportation. We are conducting a national study of Americans' driving habits and attitudes.

[IF NEEDED: Any answers you give are kept strictly private. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB number for this solicitation is 2127-0665 and it expires on February 28, 2013.]

Are you currently driving?

1	Yes	**THANK & END, CALLBACK**
2	No	
9	Refused	**THANK AND END**

SC1a Are you in a safe place to talk right now?

1	Yes	
2	No, call me later	**SCHEDULE CALLBACK**
3	No, CB on land-line	**RECORD NUMBER, schedule call back**
4	Cell phone for business only	**THANK & END - BUSINESS#**
9	Refused	**THANK AND END**

SC2 As I mentioned, I am calling on behalf of the Department of Transportation. This collection of information is VOLUNTARY and will be used for statistical purposes only so that we may develop and evaluate programs designed to reduce the number of traffic-related injuries and deaths. The interview will take approximately 20 minutes. Your participation is anonymous, and we will not collect any personal information that would allow anyone to identify you. Are you 16 years old or older?

[IF NEEDED: If you would like to learn more about the survey, you can call our toll-free number at 1-866-898-5285 or visit the DOT website at www.nhtsa.gov and read the Distracted Driving Survey Research in Progress notice for more information. The OMB number for this solicitation is 2127-0665 and it expires on February 28, 2013.]

1	Yes	
2	Yes, no time	**SCHEDULE CALLBACK**
3	No	**SCREEN OUT**
9	Refused	**THANK AND END**

Qualified Level 1

SC2a How many persons, age 16 and older, live in your household?

[ENTER NUMBER 1-10]

10	10 or more	
98	NONE	**SCREEN OUT, SKIP TO SCR1**
99	Don't know/Refused	**THANK AND END**

SC5 Not counting (this/these) cell phone(s), do you also have a regular landline phone at home?

1	Cell is only phone	**SKIP TO SA3**
2	Has regular phone at home	
9	Don't know/Refused	**THANK AND END**

SC6 Of all the telephone calls that you or your family receives, are . . (Read List)

1 All or almost all calls received on cell phones
2 Some received on cell phones and some on regular phones **(SCRN OUT: NOT CELL MOSTLY) SKIP TO SCR1**
3 Very few or none on cell phones **(SCRN OUT: NOT CELL MOSTLY) SKIP TO SCR1**
8 (VOL) Don't know **(SCRN OUT: NOT CELL MOSTLY) SKIP TO SCR1**
9 (VOL) Refused **(SCRN OUT: NOT CELL MOSTLY) SKIP TO SCR1**

SC7 Thinking about just your LANDLINE home phone, NOT your cell phone, if that telephone rang when someone was home, under normal circumstances, how likely is it that the phone would be answered? Would you say it is … (Read List)

1 Very likely the landline phone would be answered,
2 Somewhat likely,
3 Somewhat unlikely,
4 Very Unlikely, or
5 Not at all likely the landline phone would be answered
8 (VOL) Don't know
9 (VOL) Refused

5460L: LANDLINE SAMPLE

SL1 Hello, I am _____ calling on behalf of the U.S. Department of Transportation. We are conducting a national study of Americans' driving habits and attitudes. This collection of information is VOLUNTARY and will be used for statistical purposes only so that we may develop and evaluate programs designed to reduce the number of traffic-related injuries and deaths. The interview will take approximately 20 minutes. Your participation is anonymous, and we will not collect any personal information that would allow anyone to identify you.

[IF NEEDED: If you would like to learn more about the survey, you can call our toll-free number at 1-866-898-5285 or visit the DOT website at www.nhtsa.gov and read the Distracted Driving Survey Research in Progress notice for more information. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB number for this solicitation is 2127-0665 and it expires on February 28, 2013.]

How many persons, age 16 and older, live in this household?

[ENTER NUMBER 1-10]

10	10 or more	
98	NONE	**SCREEN OUT**
99	Don't know/Refused	**THANK AND END**

Qualified Level 1

ASK IF SL1=1.

SL1b May I speak with that person?

1	Rspn on line	**SKIP TO SA3**
2	Rspn called to phone	**GO TO SL1d**
3	Rspn unavailable	**SCHEDULE CALLBACK**
9	Refused	**THANK AND END**

ASK IF SL1>1

SL1c In order to select just one person to interview, may I please speak to the person in your household, 16 or older, who (**RANDOMIZE:** has had the most recent/will have the next) birthday?

1	Rspn on line	**GO TO SA3**
2	Rspn called to phone	
3	Rspn unavailable	**SCHEDULE CALLBACK**
9	Refused	**THANK AND END**

SL1d Hello, I am _____ calling on behalf of the U.S. Department of Transportation. We are conducting a national study of Americans' driving habits and attitudes. This collection of information is VOLUNTARY and will be used for statistical purposes only so that we may develop and evaluate programs designed to reduce the number of traffic-related injuries and deaths. The interview will take approximately 20 minutes. Your participation is anonymous, and we will not collect any personal information that would allow anyone to identify you.

[IF NEEDED: If you would like to learn more about the survey, you can call our toll-free number at 1-866-898-5285 or visit the DOT website at www.nhtsa.gov and read the Distracted Driving Survey Research in Progress notice for more information. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB number for this solicitation is 2127-0665 and it expires on February 28, 2013.]

Could I please confirm that you are a household member 16 or older?

1	Yes	
2	No	**SCHEDULE CALLBACK**
9	Refused	**THANK AND END – Soft Refusal**

SKIP TO SA3

4548O: LANDLINE OVERSAMPLE

SO1 Hello, I am _____ calling on behalf of the U.S. Department of Transportation. We are conducting a national study of Americans' driving habits and attitudes. This collection of information is VOLUNTARY and will be used for statistical purposes only so that we may develop and evaluate programs designed to reduce the number of traffic-related injuries and deaths. The interview will take approximately 20 minutes. Your participation is anonymous, and we will not collect any personal information that would allow anyone to identify you.

[IF NEEDED: If you would like to learn more about the survey, you can call our toll-free number at 1-866-898-5285 or visit the DOT website at www.nhtsa.gov and read the Distracted Driving Survey Research in Progress notice for more information. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB number for this solicitation is 2127-0665 and it expires on February 28, 2013.]

How many people, 16 to 34, live in this household?

[ENTER NUMBER 1-10]

10	10 or more	
98	NONE	**SCREEN OUT**
99	Don't know/Refused	**THANK AND END**

Qualified Level 1

ASK IF SO1=1.

SO1b May I speak with that person?

1	Rspn on line	**SKIP TO SA3**
2	Rspn called to phone	**GO TO SO1d**
3	Rspn unavailable	**SCHEDULE CALLBACK**
9	Refused	**THANK AND END**

ASK IF SO1>1

SO1c In order to select just one person to interview, may I please speak to the person in your household, 16 to 34, who (has had the most recent/will have the next) birthday?

1	Rspn on line	**GO TO SA3**
2	Rspn called to phone	
3	Rspn unavailable	**SCHEDULE CALLBACK**
9	Refused	**THANK AND END**

SO1d Hello, I am _____ calling on behalf of the U.S. Department of Transportation. We are conducting a national study of Americans' driving habits and attitudes. This collection of information is VOLUNTARY and will be used for statistical purposes only so that we may develop and evaluate programs designed to reduce the number of traffic-related injuries and deaths. The interview will take approximately 20 minutes. Your participation is anonymous, and we will not collect any personal information that would allow anyone to identify you.

[IF NEEDED: If you would like to learn more about the survey, you can call our toll-free number at 1-866-898-5285 or visit the DOT website at www.nhtsa.gov and read the Distracted Driving Survey Research in Progress notice for more information. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB number for this solicitation is 2127-0665 and it expires on February 28, 2013.]

Could I please confirm that you are a household member 16 to 34?

1	Yes	
2	No	**SCHEDULE CALLBACK**
9	Refused	**THANK AND END**

SA3 Record gender from observation. (Ask only if Necessary)

1 Male
2 Female

Qualified Level 2

GENERAL DRIVING INFORMATION

Q1) How often do you drive a motor vehicle, regardless of whether it is for work or for personal use? Every day, almost every day, a few days a week, a few days a month, a few days a year, or do you never drive?

[**DO NOT READ LIST]**

1 Every day	
2 Almost every day	
3 Few days a week	
4 Few days a month	
5 Few days a year	
6 Never	**SKIP TO Q24** [SCREEN OUT – DEMOS ONLY]
7 (VOL) Other (**SPECIFY**)	
98 (VOL) Don't know	**SKIP TO Q24** [SCREEN OUT – DEMOS ONLY]
99 (VOL) Refused	**SKIP TO Q24** [SCREEN OUT – DEMOS ONLY]

Q1a) Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?
[**NOTE: IF RESPONDENT DRIVES MORE THAN ONE VEHICLE OFTEN, ASK:**] "What kind of vehicle did you LAST drive?"

1 Car
2 Van or minivan
3 Motorcycle
4 Pickup truck
5 Sport Utility Vehicle
6 Other truck (**SPECIFY**)
7 (VOL) Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refused

PERCEPTIONS OF ENFORCEMENT

Q2 When you pass a driver stopped by the police IN THE DAYTIME, what do you think the stop was most likely for?
[**DO NOT READ LIST - MULTIPLE RECORD**]

1 Speeding
2 Seat Belt Violation
3 Drunk Driving
4 Reckless Driving
5 Cell phone use
6 Texting or sending e-mails while driving
7 Registration Violation
8 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refused

Q2a) When you pass a driver stopped by the police IN THE NIGHTTIME, what do you think the stop was for? [**DO NOT READ LIST - MULTIPLE RECORD**]

1 Speeding
2 Seat Belt Violation
3 Drunk Driving
4 Reckless Driving
5 Cell phone use
6 Texting or sending e-mails while driving
7 Registration Violation
8 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refused

OWNERSHIP OF MOBILE ELECTRONICS
Q3) Do you CURRENTLY own any of the following devices?

[READ A-H AND CODE FOR EACH:]
a) A cell phone [Code 1 (Yes) if mentions any cell phone including a smartphone]
b) A 'smartphone' such as a Droid, iPhone, or Blackberry
c) A pager or beeper
d) A portable music player, such as a CD player, iPod, or Zune
e) A portable navigation system, such as TomTom or Garmin
f) A navigation system built into the vehicle, such as OnStar or Sync
g) A laptop computer,iPad, Kindle, or Nook
h) [**ASK IF 3a OR 3b= Yes**] A Bluetooth or other hands-free device for your cell phone, such as one that plugs into the phone, works wirelessly, or works through your vehicle's car stereo

1 Yes
2 No
3 Mixed/Shared Use
98 (VOL) Don't know
99 (VOL) Refused

FREQUENCY OF DISTRACTED DRIVING

Q4) I'm going to read a list of activities, and for each I'd like you to tell me how often YOU do each while driving? For each, please tell me if you do the activity always, almost always, sometimes, rarely, or never? How often do you…
[READ A-N AND CODE FOR EACH:]
a) Talk to other passengers in the vehicle
b) Eat or drink
c) Make or accept phone calls
d) Read, such as a book, newspaper, iPad or Kindle
e) Read e-mails or text messages
f) Send text messages or e-mails
g) Talk or interact with children in the back seat
h) Do personal grooming, such as put on make-up, shave, or look at yourself in the mirror
i) Adjust the car radio
j) Change CDs, DVDs, or tapes
k) Use a portable music player, including a smartphone, with headphones on
l) Use a portable music player, including a smartphone, with external speakers or with the car's speakers
m) Use your Smartphone for driving directions
n) Use a navigation system for driving directions

1) Always
2) Almost always
3) Sometimes
4) Rarely
5) Never
98) (VOL) Don't know
99) (VOL) Refuse

IF (Q4c=5) SKIP TO Q9

ANSWERING AND MAKING CELL PHONE CALLS WHILE DRIVING

Q5a) When you RECEIVE a phone call while you are driving, how often do you ANSWER the call? [**READ LIST]**

1 Always
2 Almost always
3 Sometimes
4 Rarely
5 Never [**SKIP TO Q6a**]
98 (VOL) Don't know
99 (VOL) Refuse

Q5b) What are the reasons you are more likely to ANSWER a call while driving? **[DO NOT READ LIST - MULTIPLE RECORD**]

1 I answer all calls
2 Who is calling
3 How important I think the call is
4 Availability of the phone
5 Call is work-related
6 Call is personal or social
7 Call is routine or expected
8 Call is unexpected
9 Call is from someone I know
10 Call is from a number I don't recognize
11 Non-stressful traffic conditions
12 Good weather conditions
13 Traveling at a low speed
14 Time of day
15 Boredom
16 In need of directions or other information
17 Personal safety
18 If State law allows
19 No police officers in sight
20 Tired (talking keeps me awake)
21 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refuse

Q5c) When you answer a call while driving, do you USUALLY… **[READ LIST]**

1 Answer and continue to drive while completing the conversation
2 Answer and promptly pull over to a safe location
3 Answer and inform the caller you will call back later
4 Pull over to a safe location first and then speak to the caller
5 Hand the phone to a passenger to answer if you have one
98 (VOL) Don't know
99 (VOL) Refuse

Q5d) Which of the following do you USUALLY do when you answer a call while driving? Please answer Yes or No after I read each item.
[READ LIST] MULTIPLE RECORD.

1 Hold the phone in your hand
2 Squeeze the phone between your ear and shoulder
3 Use a hands-free earpiece
4 Use a built-in-car system (OnStar, Sync, or built-in Bluetooth)
5 Use the cell phone's speakerphone feature
6 Varies
98 (VOL) Don't know
99 (VOL) Refuse

Q6a) When you are driving, how often are you willing to MAKE a phone call?
[**READ LIST]**

1 Always
2 Almost always
3 Sometimes
4 Rarely
5 Never [**SKIP TO Q7**]
98 (VOL) Don't know
99 (VOL) Refuse

Q6b) What are the reasons you are more likely to MAKE a call while driving?
[DO NOT READ LIST - MULTIPLE RECORD]

1 Who I'm calling
2 How important/urgent I think the call is
3 Availability of the phone
4 Work-related
5 Personal or social
6 Non-stressful traffic conditions
7 Good weather conditions
8 Traveling at a low speed
9 Time of day
10 Boredom
11 If I need of directions or other information
12 I think it's safe to call
13 Personal Safety
14 If State law permits
15 No police officers in sight
16 Report a traffic crash/emergency
17 Report a medical emergency
18 Tired (talking keeps me awake)
19 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refuse

Q6c) Which of the following ways do you usually MAKE a call while driving? Please answer Yes or No after I read each item.

[**READ LIST – MULTIPLE RECORD]**

1 Manual dialing
2 Voice-dial (speaking a name or phone number)
3 Speed dial or favorites
4 Scroll through saved numbers and select
5 Varies
98 (VOL) Don't know
99 (VOL) Refuse

[IF Q5a = 5 (Never) AND Q6a = 5 (Never), SKIP TO Q9]

Q7) How, if at all, would you say your driving is different when you are TALKING on the phone?

[**DO NOT READ, MULTIPLE RECORD**]

1 No difference
2 Drive slower
3 Drive faster
4 Change lanes more frequently
5 Change lanes less frequently
6 Avoid changing lanes altogether
7 Apply the brakes suddenly
8 Drift out of the lane or roadway
9 Use turn signal less regularly
10 Use turn signal more regularly
11 Increase distance from lead vehicle
12 Follow lead vehicle more closely
13 Look in your rear or side view mirrors more frequently
14 Look in your rear or side view mirrors less frequently
15 Other [**SPECIFY**]
98 (VOL) Don't Know
99 (VOL) Refused

Q8) Is there any driving situation in which you would NEVER TALK on a phone while driving?
[**DO NOT READ, MULTIPLE RECORD**]

1 When moving (not at stop signs or stop lights)
2 on long trips
3 on short trips
4 Fast moving traffic (freeway)
5 Bumper to bumper traffic
6 on an empty roadway
7 Merging with traffic
8 Bad weather
9 Driving a familiar route
10 Driving in unfamiliar area/roads
11 Driving at nighttime
12 Marked school zones
13 Residential streets
14 Parking lots
15 With other adult passengers in the car
16 With a baby or child on board
17 Winding/curving roads
18 Marked construction zones
19 When I see a police officer
20 When driving in a place where it is prohibited
21 Other [**SPECIFY**]
98 (VOL) Don't Know
99 (VOL) Refused

TEXTING OR E-MAILING WHILE DRIVING

IF (Q4f=5) SKIP TO Q13

Q9) Do you ever SEND text messages or e-mails when you are driving?

1 Yes
2 No [**SKIP TO Q13**]
98 (VOL) Don't Know
99 (VOL) Refused

Q10) If you SEND a text message or e-mail while driving, do you USUALLY…
[READ LIST]

1 Continue to drive while completing the message
2 Pull over to a safe location to send the message
3 Hand the phone to a passenger to do your messaging
4 Use a Voice Command feature (speech dictation)
5 Wait until you reach a red light or stop sign to send the message
98 (VOL) Don't know
99 (VOL) Refuse

Q10a) What makes it more likely you will SEND a text message or e-mail while driving?
[DO NOT READ LIST - MULTIPLE RECORD]

1 Who I'm messaging
2 How important I think the message is
3 Work-related
4 Personal or social
5 Non-stressful traffic conditions
6 Good weather conditions
7 Traveling at a low speed
8 Time of day
9 Boredom
10 In need of directions or other information
11 I think it's safe to call
12 Personal Safety
13 If State law permits
14 If no police officers are in sight
15 Report a traffic crash/emergency
16 Report a medical emergency
17 Tired (texting keeps me awake)
18 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refuse

Q11) How would you say your driving is different when you are SENDING TEXT OR E-MAIL MESSAGES?
[**DO NOT READ, MULTIPLE RECORD**]

1 No difference
2 Drive slower
3 Drive faster
4 Change lanes more frequently
5 Change lanes less frequently
6 Avoid changing lanes altogether
7 Apply the brakes suddenly
8 Drift out of the lane or roadway
9 Use turn signal less regularly
10 Use turn signal more regularly
11 Increase distance from lead vehicle
12 Follow lead vehicle more closely
13 Look in your rear or side view mirrors more frequently
14 Look in your rear or side view mirrors less frequently
15 Other [**SPECIFY**]
98 (VOL) Don't Know
99 (VOL) Refused

Q12) Is there any driving situation in which you would NEVER SEND a text or e-mail message while driving?

[**DO NOT READ, MULTIPLE RECORD:**]

1 When moving (not at stop signs or stop lights)
2 on long trips
3 on short trips
4 Fast moving traffic (freeway)
5 Bumper to bumper traffic
6 on an empty roadway
7 Merging with traffic
8 Bad weather
9 Driving a familiar route
10 Driving in unfamiliar area/roads
11 Driving at nighttime
12 Marked school zones
13 Residential streets
14 Parking lots
15 With other adult passengers in the car
16 With a baby or child on board
17 Winding/curving roads
18 Marked construction zones
19 When I see a police officer
20 When driving in a place where it is prohibited
21 Other [**SPECIFY**]
98 (VOL) Don't Know
99 (VOL) Refused

PERCEPTIONS ABOUT DANGER OF DISTRACTIONS

Q13) How many seconds do you believe a driver can take his or her eyes off the road before driving becomes significantly more dangerous?

ENTER VALUE: _____
11 11 seconds or more
98 (VOL) Don't know
99 (VOL) Refuse

Q14) Now I'm going to read a list of things people sometimes do while driving. Tell me how safe you would feel if you were a passenger riding in a car while your driver was doing the following. For each please tell me if you would feel very unsafe, somewhat unsafe, a little less safe, or safe – no problem – would not pay any more attention.
[**READ A-O AND RECORD FOR EACH:**]

a) Talking to other passengers in the vehicle
b) Eating or drinking
c) Talking on a cell phone while holding the phone
d) Talking on a cell phone with a hands-free device
e) Reading, such as a book, newspaper, or an iPad or Kindle
f) Reading e-mails or text messages
g) Sending text messages or e-mails
h) Talking or interacting with children in the back seat
i) Doing personal grooming, such as putting on make-up, shaving, looking in the mirror
j) Adjusting the car radio, tape, or CD player
k) Singing along to a song on the radio
l) Using a laptop computer
m) Using a portable music player with headphones on
n) Manipulating a navigation system for driving directions
o) Watching a movie

1 Very unsafe
2 Somewhat unsafe
3 A little less safe
4 Safe, no problem, would not pay any more attention
98 (VOL) Don't know
99 (VOL) Refuse

Q14b) How likely are you to do or say something to your driver if they're TALKING on a hand-held cell phone while driving?
[READ LIST]

1 Very likely
2 Somewhat likely
3 Somewhat unlikely **SKIP TO Q14c**
4 Very unlikely **SKIP TO Q14c**
5 Never would intervene **SKIP TO Q14c**
98 (VOL) Don't know **SKIP TO Q14c**
99 (VOL) Refused **SKIP TO Q14c**

Q14bo) What would you say?
(SPECIFY)
PROBE: Anything Else?

Q14c) How likely are you to do or say something to your driver if they're SENDING TEXT MESS OR E-MAILS while driving?
[READ LIST]

1 Very likely	
2 Somewhat likely	
3 Somewhat unlikely	**SKIP TO Q15**
4 Very unlikely	**SKIP TO Q15**
5 Never would intervene	**SKIP TO Q15**
98 (VOL) Don't know	**SKIP TO Q15**
99 (VOL) Refused	**SKIP TO Q15**

Q14co) What would you say?
(SPECIFY)
PROBE: Anything Else?

CHANGES IN DISTRACTED DRIVING

Q4c = 5 SKIP TO Q16]

Q15) In the past 30 days, has your frequency of making and receiving phone calls while driving increased, decreased, or stayed the same?

1 Increased	**SKIP TO Q15b**
2 Decreased	
3 Stayed the same	**SKIP TO Q15b**
4 New Driver	**SKIP TO Q15b**
5 Never used a phone while driving	**SKIP TO Q16**
98 (VOL) Don't know	**SKIP TO Q15b**
99 (VOL) Refuse	**SKIP TO Q15b**

Q15a) What caused your frequency of making and receiving phone calls while driving to decrease?
[DO NOT READ LIST - MULTIPLE RECORD]

1 Increased awareness of safety
2 Law that bans cell phone use
3 Don't want to get a ticket
4 Was in a crash
5 Influence/pressure from others
6 More long distance driving
7 The weather
8 Driving faster
9 Other (SPECIFY)
98 (VOL) Don't know
99 (VOL) Refused

Q15b) [**ASK IF Q9 = 1**] In the past 30 days, has the frequency with which you send and receive text messages or e-mails while driving increased, decreased, or stayed the same?

1 Increased	**SKIP TO Q16**
2 Decreased	
3 Stayed the same	**SKIP TO Q16**
4 New Driver	**SKIP TO Q16**
5 Never used a phone while driving	**SKIP TO Q16**
98 (VOL) Don't know	**SKIP TO Q16**
99 (VOL) Refuse	**SKIP TO Q16**

Q15c) [**ASK IF Q9 = 1**] What caused the frequency with which you send and receive text messages or e-mails while driving to decrease?

[DO NOT READ LIST - MULTIPLE RECORD]

1 Increased awareness of safety
2 Law that bans texting/e-mailing
3 Don't want to get a ticket
4 Was in a crash
5 Influence/pressure from others
6 More long distance driving
7 The weather
8 Driving faster
9 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refused

DISTRACTED DRIVING LAWS

Q16) Does [SAMPSTAT] have a law banning talking on a hand-held cell phone while driving?

1 Yes	
2 Yes, probably	
3 No	**SKIP TO Q16b**
98 (VOL) Don't Know	
99 (VOL) Refused	**SKIP TO Q16b**

Q16a) Assume that over the next six months someone frequently TALKS on a hand-held cell phone while driving. How likely do you think that person would be to receive a ticket for talking on a cell phone while driving?

[**READ LIST]**

1 Very likely
2 Somewhat likely
3 Somewhat unlikely
4 Very unlikely
98 (VOL) Don't know
99 (VOL) Refused

Q16b) Does [SAMPSTAT] have a law banning TEXTING OR E-MAILING while driving?

1 Yes	
2 Yes, probably	
3 No	**SKIP TO Q17**
98 (VOL) Don't Know	
99 (VOL) Refused	**SKIP TO Q17**

Q16c) Assume that over the next six months someone frequently sends text messages or e-mails while driving. How likely do you think that person would be to receive a ticket for sending text messages or e-mails while driving?
[**READ LIST]**
1 Very likely
2 Somewhat likely
3 Somewhat unlikely
4 Very unlikely
98 (VOL) Don't know
99 (VOL) Refused

Q17) Do you support a State law banning talking on a hand-held cell phone while driving?
1 Yes
2 No **SKIP TO Q17b**
98 (VOL) Don't Know
99 (VOL) Refused **SKIP TO Q17b**

Q17a) What do you think the fine should be for talking on a hand-held cell phone while driving?
[RECORD VALUE]
0 No fine
997 $997 or more
998 (VOL) Don't know
999 (VOL) Refuse

Q17b) Do you support a State law banning texting or e-mailing while driving?
1 Yes
2 No **SKIP TO Q18**
98 (VOL) Don't Know
99 (VOL) Refused **SKIP TO Q18**

Q17c) What do you think the fine should be for sending text messages or e-mails while driving?
[RECORD VALUE]
0 No fine
997 $997 or more
998 (VOL) Don't know
999 (VOL) Refuse

PROGRAM AWARENESS

Q18) In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for using handheld cell phones while driving?
1 Yes
2 No **SKIP TO Q18b**
98 (VOL) Don't Know **SKIP TO Q18b**
99 (VOL) Refused **SKIP TO Q18b**

Q18a) Where did you see or hear about that special effort?
[DO NOT READ LIST - MULTIPLE RECORD]

1 TV - advertisement/public service announcement
2 TV - news
3 Radio - advertisement/public service announcement
4 Radio - news
5 Online news/blog
6 Internet ad/banner
7 Social networking website (Facebook, MySpace, Twitter)
8 Online video (YouTube, Google Video)
9 Friend/relative
10 Newspaper/magazine
11 Witnessed enforcement activity
12 Billboard/signs
13 Educational program
14 I'm a police officer/judge
15 Direct contact by police officer
16 Internet game
17 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refused

Q18b) Were you personally stopped by police for using a handheld cell phone while driving in the past 30 days?

1 Yes
2 No **SKIP TO Q19**
98 (VOL) Don't Know **SKIP TO Q19**
99 (VOL) Refused **SKIP TO Q19**

Q18c) Did you receive a ticket or warning?

1 Yes - ticket for talking on a cell phone
2 Yes - warning for talking on a cell phone
3 Yes - ticket for texting or sending an e-mail
4 Yes - warning for texting or sending an e-mail
5 No
98 (VOL) Don't Know
99 (VOL) Refused

OTHER EDUCATIONAL MESS

Q19) Now, I would like to ask you a few questions about educational or other types of activities. In the past 30 days, have you seen or heard any messages that encourage people not to talk on phones or send electronic messages while driving? This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.

1 Yes
2 No **SKIP TO Q20**
98 (VOL) Don't Know **SKIP TO Q20**
99 (VOL) Refused **SKIP TO Q20**

Q19a) Where did you see or hear these messages?
[DO NOT READ LIST - MULTIPLE RECORD]

1 TV - advertisement/public service announcement
2 TV – news
3 TV show storyline
4 Radio - advertisement/public service announcement
5 Radio - news
6 Online news/blog
7 Internet ad/banner
8 Social networking website (Facebook, MySpace, Twitter)
9 Online video (YouTube, Google Video)
10 Friend/relative
11 Newspaper/magazine
12 Personal observation/on the road
13 Billboard/signs
14 Educational program
15 I'm a police officer/judge
16 Direct contact by police officer
17 Internet game
18 Other (**SPECIFY**)
98 (VOL) Don't know
99 (VOL) Refused

Q20) Do you recall hearing or seeing the following slogans in the past 30 days?
[**READ A-R AND RECORD FOR EACH:**]

a) Friends don't let friends drive drunk
b) Click it or Ticket
c) on the Road, Off the Phone
d) Drive by the Rules, Keep the Privilege
e) u txt i tikit
f) Phone in One Hand, Ticket in the Other
g) Just Drive
h) You Drink and Drive. You Lose.
i) No Phone Zone
j) Get the keys
k) Drunk Driving Over the Limit under Arrest
l) Four Steps for Kids
m) Put it Down
n) If they're under FOUR FEET, NINE INCHES, they need a booster seat
o) One Text or Call Could Wreck it All
p) Drive Sober or Get Pulled Over

1 Yes
2 No
98 (VOL) Don't Know
99 (VOL) Refused

EXPOSURE TO DISTRACTED DRIVING CRASHES AND STORIES

Q21) Have you been involved in a crash or near-crash as a driver in the past year?
1 Yes - near-crash
2 Yes - crash
3 No **SKIP TO Q22**
98 (VOL) Don't Know **SKIP TO Q22**
99 (VOL) Refused **SKIP TO Q22**

Q21a) Were you using a cell phone at the time of the LAST [**crash/near-crash**] you were in?
1 Yes - talking
2 Yes - reading electronic text
3 Yes - sending text message or e-mail
4 No
98 (VOL) Don't Know
99 (VOL) Refused

PERCEPTIONS OF AND RESPONSES TO OTHER DISTRACTED DRIVERS

Q22) What percentage of drivers do you believe at least occasionally TALK on a cell phone while driving?
[RECORD VALUE]
998 (VOL) Don't know
999 (VOL) Refuse

Q22a) What percentage of drivers do you believe at least occasionally SEND TEXT MESS OR E-MAILS on a cell phone while driving?
[RECORD VALUE]
998 (VOL) Don't know
999 (VOL) Refuse

INTERVENING AS A PASSENGER

Q23) When riding as a passenger, how comfortable would you feel if your driver was TALKING on a cell phone while driving?
[READ LIST]
1 Very comfortable – No problem
2 Aware but not uncomfortable
3 Somewhat uncomfortable
4 Uncomfortable
5 Very uncomfortable
98 (VOL) Don't know
99 (VOL) Refused

Q23a) When riding as a passenger, how comfortable would you feel if your driver was SENDING TEXT MESS OR E-MAILS while driving?
[READ LIST]
1 Very comfortable – No problem
2 Aware but not uncomfortable
3 Somewhat uncomfortable
4 Uncomfortable
5 Very uncomfortable
98 (VOL) Don't know
99 (VOL) Refused

DEMOGRAPHIC QUESTIONS

[SAY:] Now, I need to ask you some basic information about you and your household. Again, this information is confidential and will not be used to identify you personally.

Q24) What is your age?
[RECORD VALUE] RANGE: 16-101/998/999
101 101 or older
998 (VOL) Don't know
999 (VOL) Refuse

IF (SAMPLE=LANDLINE X-SECTION OR CELL) SKIP TO Q24b
Q24a) Including yourself, how many people, 16 or older, are living in your household at least half of the time or consider it their primary residence?
[RECORD VALUE] RANGE: 0-11/998/999
11 11 or more
998 (VOL) Don't know
999 (VOL) Refuse

Q24b) How many children 15 or younger are living in your household at least half of the time or consider it their primary residence?
[RECORD VALUE] RANGE: 0-11/998/999
11 11 or more
998 (VOL) Don't know
999 (VOL) Refuse

Q24c) Do you consider yourself to be Hispanic or Latino?
1 Yes
2 No
98 (VOL) Don't Know
99 (VOL) Refused

Q24d) Which of the following racial categories describe you? You may select more than one.
[READ LIST - MULTIPLE RECORD]
1 American Indian or Alaska Native
2 Asian
3 Black or African American
4 Native Hawaiian or other Pacific Islander
5 White
6 (VOL) Hispanic
7 Other (SPECIFY)
99 (VOL) Refused

Q24e) What is highest grade or year of regular school you have completed? **DO NOT READ**

1 No formal schooling
2 First through 7th grade
3 8th grade
4 Some high school
5 High school graduate
6 Some college
7 Four-year college graduate
8 Some graduate school
9 Graduate degree
10 (VOL) Refused

Q24e1) Do you own or rent your home?

1 Own
2 Rent
3 Some other arrangement
98 (VOL) Don't Know
99 (VOL) Refused

Q24f) How many landline telephone numbers do you have in your household?
[RECORD VALUE] RANGE: 0-97/98/99

97 97 or more
98 (VOL) Don't know
99 (VOL) Refuse

Q24g) How many separate cell phone numbers do you have in your household?
[RECORD VALUE] RANGE: 0-97/98/99

97 97 or more
98 (VOL) Don't know
99 (VOL) Refuse

ASK ONLY IF LANDLINE SAMPLE OR OVERSAMPLE AND (Q24G>0 AND Q24G<98)
Q24h Of all the telephone calls that you or your family receives, are . . (Read List)

1 All or almost all calls received on cell phones
2 Some received on cell phones and some on regular phones
3 Very few or none on cell phones
98 (VOL) Don't know
99 (VOL) Refused

ASK ONLY IF LANDLINE SAMPLE OR OVERSAMPLE AND (Q24G>0 AND Q24G<98)
Q24i Thinking about just your LANDLINE home phone, NOT your cell phone, if that telephone rang when someone was home, under normal circumstances, how likely is it that the phone would be answered? Would you say it is … (Read List)

1 Very likely the landline phone would be answered,
2 Somewhat likely,
3 Somewhat unlikely,
4 Very Unlikely, or
5 Not at all likely the landline phone would be answered
98 (VOL) Don't know
99 (VOL) Refused

Q24j) What is your approximate household income?
[READ LIST]

1 Less than $10,000
2 $10,000 to $14,999
3 $15,000 to $24,999
4 $25,000 to $49,999
5 $50,000 to $99,999
6 $100,000 to $149,999
7 $150,000 to $199,999
8 $200,000 or more
98 (VOL) Don't Know
99 (VOL) Refused

Q24j1) Have you visited the distraction.gov website or looked for distracted driving information on nhtsa.gov?

1 Yes
2 No
8 (VOL) Don't Know
9 (VOL) Refused

Q24k. May I please have your zip code?

ENTER 5 DIGIT ZIP CODE:

99998 (VOL) Don't Know
99999 (VOL) Refused

[**READ**:] That completes the survey. Thank you very much for your time and cooperation. If you would like information about traffic safety, please visit www.nhtsa.gov.

SCR1 I am sorry but you are not eligible to participate in the survey today. Thank you for your cooperation and I hope you have a pleasant evening.

Appendix B
Methodology

Survey Methodology for the 2012 National Survey on Distracted Driving Attitudes and Behaviors

The goal of the 2012 National Survey on Distracted Driving Attitudes and Behavior was to obtain a "snapshot" of the attitudes and behaviors with regards to distracted driving activities of the population of drivers in the United States using a telephone survey of U.S. drivers 16 and older. Only surveys based on probability samples can be used to create mathematically sound statistical inferences about a larger target population. Most statistical formulas for specifying the sampling precision (estimates of sampling variance), given particular sample sizes, are premised on simple random sampling. However, random sampling requires an enumeration of all of the elements in the population. Since no enumeration of the total population of the United States (or its subdivisions) is available, all surveys of the general public are based upon complex sample designs that may employ stratification and two or more stages of sampling.

A sampling design using geographic stratification (NHTSA Region), an oversample of young drivers, sampling frames of households with landlines and cell phones, together with an overall sample size of 6,000 was developed and implemented for this survey. The final sample consisted of 6,016 respondents, which included an oversample of 682 drivers 16 to 34 years old, with 35.6% of respondents coming from cell phone only or cell phone mostly households. Weights were developed to yield national estimates of the target population within specified limits of expected sampling variability. This appendix describes the methods of sample construction and survey administration, and shows the sample disposition and computation of weights.

Sample Construction

Strata - The initial stage in the construction of this sample required the development of a national probability sample of the non-institutionalized population of the United States aged 16 and older. Stratification (i.e., division of the population into collectively exhaustive and mutually exclusive homogenous groups), an efficient way of achieving high statistical precision with a smaller overall sample size, was employed. The United States was stratified into 10 strata, each consisting of the States in NHTSA's 10 regions.[6]

The estimated distribution of the target population by stratum was calculated on the basis of the U.S. Census Bureau, Population Estimates by State by Single Year of Age, Sex, Race, and Hispanic Origin: 2008. The population estimates were taken for the population 16 and older. Based on these Census estimates of the geographic distribution of the target population, the total sample was proportionately allocated by stratum.

Oversample of respondents 16 to 34 - Given NHTSA's interest in the driving behaviors of young drivers, it was very important that the subsample of drivers 16 to 34 years old in this survey be large enough for meaningful statistical analysis. However, the population prevalence of this age group was not

[6] **Region 1:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Region 2: New Jersey, New York, Pennsylvania, Puerto Rico, and the Virgin Islands
Region 3: Delaware, District of Columbia, Kentucky, Maryland, North Carolina, Virginia, West Virginia
Region 4: Alabama, Florida, Georgia, South Carolina, Tennessee
Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
Region 6: Indian Nations, Louisiana, Mississippi, New Mexico, Oklahoma, Texas
Region 7: Arkansas, Iowa, Kansas, Missouri, Nebraska
Region 8: Colorado, Nevada, North Dakota, South Dakota, Utah, Wyoming
Region 9: Arizona, California, Hawaii, Pacific Territories
Region 10: Alaska, Idaho, Montana, Oregon, Washington

large enough to generate the desired subsample size, given a total sample of 6,000 for the survey so an oversample was included. Based on year 2008 Census Bureau estimates of the civilian non-institutionalized population, we estimated that in a population based sample about 33 percent of drivers should be 16 to 34. Our experience with recent telephone surveys using only conventional random digit dialing (RDD) of landline households indicates that the subsample of respondents 16 to 34 obtained by this method would fall short of the desired 33 percent of the total sample. For example, in the 2007 Motor Vehicle Occupant Safety Survey (MVOSS) that relied on RDD of landline phones, respondents 16 to 34 made up only 18% of the entire sample.

Table B1 shows the national population figures and projected sample distribution by age for the total sample of 6,000 respondents. The fourth column shows the desired sample from a population based sample, and the last two columns show and what could be expected from a conventional RDD landline approach such as that used in MVOSS 2007 study.

Table B-1. Expected Population and Sample Distribution by Age Based on June 1, 2008 Census Bureau Estimates**

	Target Population		Sample Distribution		
			Population Based	Expected Distribution Based on 2007 MVOSS Response	
	(N in 1000s)	%	n	n	%
Total (16+)	233,627	100%	6,000	6,000	100%
16-24	37,476	16.0%	962	366	6.1%
25-34	39,960	17.1%	1,026	732	12.2%
35-44	41,735	17.9%	1,072	1,086	18.1%
45-64	77,397	33.1%	1,988	2,406	40.1%
65+	37,060	15.9%	952	1,410	23.5%

U.S. Bureau of the Census, Population Estimates, Age Category Estimates, 6/01/08

Source: http://www.census.gov/popest/index.html

** Sample distribution from MVOSS 2007 with RDD landline survey

The reasons for this discrepancy include a lower response rate among younger adults, a higher proportion of people 16 to 34 living in group quarters (e.g., dormitories), and a higher proportion of this age group living in cell phone only households. Hence, a simple proportionate sample of the adult driver population based on RDD landline methodology would not meet the needs of this study design. Consequently, an oversample of 682 respondents 16 to 34 was included in the sample design at the start of the study.

Landline and Cell Phone RDD samples - As noted above, RDD landline telephone sampling has been the conventional approach for conducting surveys of the U.S. household population for the past few decades. However, households are increasingly turning to cell phones, and some households have abandoned landline phones altogether. For example, the second half of 2011, the percentage of cell phone only households (households with no landline but accessible by cell phone) was 29.7% according to the

National Health Interview Survey (NHIS) (Blumberg & Luke, 2012). Current RDD landline sampling procedures exclude telephone exchanges and banks of telephone numbers used exclusively for cell phones. This makes it difficult to reach people in subpopulations with high cell phone only usage. For example, almost 7 out of 10 (69.4%) adults living with unrelated roommates and over half (53.5%) of adults aged 25 to 29 years live in cell phone only households. These are some of the same groups that are increasingly under-represented in conventional RDD landline telephone surveys. As the percentage of cell phone only households continues to grow, the conventional RDD landline sampling model can no longer reliably provide adequate population coverage required for sampling the U.S. household population. To overcome this challenge and to account for drivers that rely solely or mostly on cell phones, this survey used both a RDD sample of landline phones and a RDD sample of cell phones.

Cell Phone Households - A stratified random sample of cellular phone numbers was drawn and used to contact potential respondents. This was feasible because the 10 strata used in this study are defined in terms of States and cellular phone codes are also defined by States. However, cell phones are portable and some respondents could be living in States other than that indicated by their cell phone area code. To address this possible scenario, all cell phone respondents were asked their ZIP code.

Two types of cell phone households were identified through screening; cell phone only households and cell phone mostly households. Cell phone only households do not have a landline phone. Cell phone mostly households have both landline and cellular telephone service (dual service) but the landline is not often used for receiving calls, and therefore the probability of reaching such a household through the landline sample is greatly diminished. Because cell phone mostly households are also included in the sample frame of landline households, the estimation procedures that account for the overlapping dual service sample are more complicated than those that use non overlapping (mutually exclusive) samples of cell phone only households and landline households (with or without cell phone). Indeed, most surveys conducted to date with cell phone samples used strictly cell phone only households. However, it was important to include the cell phone mostly households in the study sample for the representativeness of the population and to capture respondents in the critical group of 16 to 34-year-olds.

Cell phones were treated as personal devices and only the person with the cell phone was screened for eligibility. The number of interviews to be achieved for these groups was derived using Cochran's formula for the optimal allocation to strata when unit costs differ between the strata.

Landline Households - A stratified sample of landline telephone numbers was drawn and potential respondents were contacted using conventional RDD methods. The households were screened for eligibility, and an eligible driver was selected for the interview. Landline respondents were not offered any incentives. A total of 3,872 interviews were conducted with respondents from the landline sample. This includes the oversample of 682 respondents 16 to 34.[7]

Table B2 shows the number of interviews from each sample type by age. Age quotas were not used during data collection except for the 682 person landline oversample for the 16 to 34-year-old group.

[7] While 782 respondents completed the landline oversample survey, only 682 met the age eligibility criterion to participate in the survey. The 100 respondents who completed the survey and stated that they were older than 34 were reassigned to the main landline survey for analysis purposes.

Table B-2. Sample Size by Type and Age

Age	Landline	Landline Oversample	Cell Phone Sample	TOTAL
16-34	302	682	925	1,909
35+	2,812	0	1,182	3,994
Not Reported	76	0	37	113
TOTAL	**3,190**	**682**	**2,144**	**6,016**

Survey Administration

The objective of survey administration is to conduct the data collection portion of the survey in a systematic, uniform, and consistent manner. Survey administration includes the cognitive testing of the instrument, survey procedures, monitoring of the interviews, and tracking of the sample disposition.

Spanish Instrument Cognitive Testing

The Spanish language questionnaire was cognitively tested among nine (9) native Spanish speakers in the Washington, DC area. Each respondent was interviewed individually and asked probing questions about the instrument such as, "What does this question mean to you?" or "Do you understand what we mean when we say _____?" Based on feedback from the 9 respondents the Spanish questionnaire was revised to ensure the Spanish-speaking respondents would understand the questions in the same way they would be understood by the English-speaking respondents. The English language questionnaire had been cognitively tested prior to the 2010 administration and due to the slight changes in the questionnaire from 2010 to 2012, it was determined that only the Spanish language questionnaire would undergo cognitive testing.

Calling Protocol

The calling protocol used in this study consisted of a maximum of 13 attempts for the landline sample, including the oversample of drivers 16 to 34. If someone in the household was contacted on one of these attempts, then the overall maximum attempts for that household was 23. For the cell phone sample, the maximum number of attempts to reach someone was 5. If contact was made with someone, then the maximum number of attempts was set at 10.

If a person selected for the sample politely refused (also known as a "soft refusal") to participate in the survey, he or she was re-contacted approximately one to two weeks after the initial refusal, giving them a "cooling off" period before the re-contact.

Monitoring of Telephone Interviewers

For quality control, the telephone interviews were monitored by field supervisory staff using a silent line and screen monitoring.

Answering Machines

The strategy for handling answering machines with a 23-call protocol has to balance the objectives of reaching the household and avoiding annoyance of the household. Thus, messages were left on the answering machine or voice mail on the fifth, seventh, and ninth calls, if an answering machine or voice mail was encountered on those attempts. The first answering machine message explained that the household had been selected as part of a U.S. DOT study of American driving habits and attitudes, and asked the respondent to call Abt SRBI's toll-free number to schedule an interview. The subsequent answering messages also included this information.

For cell phones voice messages were left on the first or second call if a voice mailbox was reached. The rationale behind this is that respondents would see the number of the call center, not recognize it, and therefore be more likely to screen the call and not answer their cell phone. Leaving a message early on let the respondent know who was calling and the purpose of the call. When we call back and the same number appears the respondent may be more likely to take the call since there is additional information pertaining to the number.

Sample Dispositions

The final dispositions for each of the three independent samples are given in the following tables: Table B-3: Landline Cross-section, Table B-4: Cell Sample, and Table B-5: Landline Oversample.

Table B-3. Landline Cross-Section Final Disposition Report

		Original Count	Estimated Qualified Household*	Estimated Response Eligible^
T1	**TOTAL**	**54,763**		
A	**NON-Usable Numbers**	**38,331**		
A1	Not in service/Disconnected/Change#	32,627		
A2	Non-residential #	3,213		
A3	Computer/Fax tone	2,028		
A4	Line problem	463		
T2	**Total Usable Numbers**	**16,432**		
B	**UNKNOWN ELIGIBLE HOUSEHOLD*^**	**6,028**	**1,809**	**1,475**
B1	Probable unassigned number	2,065		
B2	No answer/Busy	1,825		
B3	Answering machine	2,138		
C	**NOT ELIGIBLE RESPONDENT^**	**1,614**	**1,614**	**1,316**
C1	Language barrier	350		
C2	Health/Deaf	1,069		
C3	Respondent away for duration	195		
D	**UNKNOWN ELIGIBLE RESPONDENT^**	**4,512**		**3,679**
D1	Callback	958		
D2	Spanish Callback not screened	1		
D3	Refusals not screened	3,553		
E	**CONTACTS SCREENED**	**1,088**		
E1	Qualified callback	83		83
E2	Refusals – Qualified	215		215
E3	Terminates			0
E4	Screen-outs	790		
F	**COMPLETE**	**3,190**		**3,190**
A'	**ESTIMATED ELIGIBLE HH RATE =T2/T1**	**30.01%**		
B'	**ELIGIBLE RESPONSE RATE = E+F-E4/(E+F)**	**81.53%**		
C'	**SUM RESPONSE ELIGIBLE COUNT**			**9,957**
D'	**RESPONSE RATE = F/C'**	**32.04%**		
*Estimated Qualified HH=Original Count * A'				
^Response Eligible = Qualified Household Count * B'				

Table B-4. Cell Phone Final Disposition Report

		Original Count	Estimated Qualified Household*	Estimated Response Eligible^
T1	**TOTAL**	**43,821**		
A	**NON-Usable Numbers**	**16,456**		
A1	NIS/DIS/Change#/Intercepts	13,794		
A2	Non-residential #	1,721		
A3	Computer/Fax tone	110		
A4	Line problem	831		
T2	**Total Usable Numbers**	**27,365**		
B	**UNKNOWN ELIGIBLE HOUSEHOLD*^**	**11,786**	**7,360**	**3,649**
B1	Probable unassigned number	49		
B2	No answer/Busy	4,447		
B3	Answering machine	7,290		
C	**NOT ELIGIBLE RESPONDENT^**	**1,912**	**1,912**	**948**
C1	Language barrier	1,070		
C2	Health/Deaf	607		
C3	Respondent away for duration	235		
D	**UNKNOWN ELIGIBLE RESPONDENT^**	**8,370**		**4,149**
D1	Callback	3,024		
D2	Spanish Callback not screened	38		
D3	Refusals not screened	5,308		
E	**CONTACTS SCREENED**	**3,153**		
E1	Qualified callback	246		246
E2	Refusals – Qualified	236		236
E3	Terminates			0
E4	Screen-outs	2,671		
F	**COMPLETE**	**2,144**		**2,144**
A'	**ESTIMATED ELIGIBLE HH RATE =T2/T1**	**62.45%**		
B'	**ELIGIBLE RESPONSE RATE = E+F-E4/(E+F)**	**49.58%**		
C'	**SUM RESPONSE ELIGIBLE COUNT**			**11,372**
D'	**RESPONSE RATE = F/C'**	**18.85%**		
*Estimated Qualified HH=Original Count * A'				
^Response Eligible = Qualified Household Count * B'				

Table B-5. Landline Oversample Final Disposition Report

		Original Count	Estimated Qualified Household*	Estimated Response Eligible^
T1	**TOTAL**	**109,092**		
A	**NON-Usable Numbers**	**75,924**		
A1	NIS/DIS/Change#/Intercepts	64,579		
A2	Non-residential #	6,073		
A3	Computer/Fax tone	3,910		
A4	Line problem	1,362		
T2	**Total Usable Numbers**	**33,168**		
B	**UNKNOWN ELIGIBLE HOUSEHOLD*^**	**12,486**	**3,796**	**259**
B1	Probable unassigned number	3,812		
B2	No answer/Busy	4,235		
B3	Answering machine	4,439		
C	**NOT ELIGIBLE RESPONDENT^**	**929**	**929**	**63**
C1	Language barrier	299		
C2	Health/Deaf	494		
C3	Respondent away for duration	136		
D	**UNKNOWN ELIGIBLE RESPONDENT^**	**5,427**		**371**
D1	Callback	999		
D2	Spanish Callback not screened	17		
D3	Refusals not screened	4,411		
E	**CONTACTS SCREENED**	**13,644**		
E1	Qualified callback	127		127
E2	Refusals – Qualified	170		170
E3	Terminates			0
E4	Screen-outs	13,347		
F	**COMPLETE**	**682**		**682**
A'	**ESTIMATED ELIGIBLE HH RATE =T2/T1**	**30.40%**		
B'	**ELIGIBLE RESPONSE RATE = E+F-E4/(E+F)**	**6.83%**		
C'	**SUM RESPONSE ELIGIBLE COUNT**			**1,673**
D'	**RESPONSE RATE = F/C'**	**40.77%**		
*Estimated Qualified HH=Original Count * A'				
^Response Eligible = Qualified Household Count * B'				

Precision of Sample Estimates

The confidence interval for an estimate derived from the distracted driver survey sample is:

$$\hat{y} \pm z_{1-\alpha/2}\sqrt{Var(\hat{y})}$$

where:

$\hat{y}$ = an estimate of the population proportion;
$Var(\hat{y})$ = is the simple random sampling (srs) variance[8] of $\hat{y}$; and
$z_{1-\alpha/2}$ = $(1-\alpha/2)$th percentile of the standard normal distribution (95%: α = 5%, z = 1.96; 90%: α = 10%, z = 1.645).

For best results, data users should use statistical software such as SAS, SPSS, STATA or SUDAAN to calculate the confidence intervals for a complex sampling design. However, data users can use the tables that follow to approximate the confidence interval based on a simple formula.

Sampling Error

The sampling variance for an estimate is a measure of uncertainty that reflects the fact that the estimate is derived from a sample drawn from the population. If one were to draw a second sample in the exact same manner, the estimate would be different from the first simply due to the fact that our sample contains different members of the population. A third sample would be different from the first two, and so on. The sampling variance measures how different the estimates would be had we drawn different samples.

The sampling error for a complex survey depends on three things,

1. σ_y^2 =the population variance for the characteristic: the sampling variance is higher when there is a lot of variability in the population (large σ_y^2) and lower when there is little variability in the population.
2. *n* = the sample size: the sampling variance is higher when the sample size is small and lower when the sample size is large. The sampling variance for estimates of subgroups is based on the sample size for those subgroups.
3. *DEFF* = design effect:[9] Sampling design features such as stratification, clustering, dual-frame sampling, and survey weighting all contribute to the sampling variability. The design effect is a measure of inefficiency (or efficiency) of the complex sample relative to a simple random sample, calculated as $DEFF = Var(\hat{y})/Var_{\text{srs}}(\hat{y})$.

Using this relationship, we can write the sampling variance of the complex design as: $Var(\hat{y}) = Var_{\text{srs}}(\hat{y}) \times DEFF = \sigma_y^2/n \times DEFF$. Therefore, one can calculate the sampling variance with the population variance (or an estimate of the population variance); the sample size; and the design effect.

[8] A simple random sample is a sample on *n* units drawn directly from a population of N units.
[9] Kish, L. (1965). *Survey Sampling*, New York: John Wiley & Sons.

Estimating the Population Variance

The population variance is often estimated from the survey data, $s^2 = \frac{1}{n}\sum_n (y_i - \bar{y})^2$. In the case of percentages, the population variance σ_y^2 = P×(1-P) and can be estimated from the survey estimate $s^2 = \hat{p} \times (1 - \hat{p})$. An alternative is to use the variance estimates based on the percent presented in Table B-6. Rounding the estimated percentage up to the nearest 5 percentage points (e.g., 17% to 20%, 34% to 35%) is a conservative estimate of the population variance. The variance for a percentage is low when a small percentage of the population has the characteristic (or a large percentage of the population has the characteristic) and high when the percentage of the population with the characteristic is equal (50/50).

Estimating Design Effects

The sampling design impacts the variance for each data item differently. Therefore the design effect for one survey estimate might be higher or lower than the design effect of another survey estimate. The design effect will also vary for different subpopulations represented in the sample, such as males and females. To simplify the calculations of the sampling error, design effect approximations are presented in Table B-6 below. These approximations are based on the average design effect for over 60 data items.

Table B-6. Estimated 95% Error Margins Overall and Various Population Subgroups

	DEFF	n	P =	50, 50 0.2500	45, 55 0.2475	40, 60 0.2400	35, 65 0.2275	30, 70 0.2100	25, 75 0.1875	20, 80 0.1600	15, 85 0.1275	10, 90 0.0900	5, 95 0.0475
Overall	1.81	6,016		1.7%	1.7%	1.7%	1.6%	1.6%	1.5%	1.4%	1.2%	1.0%	0.7%
Region													
1	1.77	336		7.1%	7.1%	7.0%	6.8%	6.5%	6.2%	5.7%	5.1%	4.3%	3.1%
2	1.78	833		4.5%	4.5%	4.4%	4.3%	4.2%	3.9%	3.6%	3.2%	2.7%	2.0%
3	1.76	680		5.0%	5.0%	4.9%	4.8%	4.6%	4.3%	4.0%	3.6%	3.0%	2.2%
4	1.73	847		4.4%	4.4%	4.3%	4.2%	4.1%	3.8%	3.5%	3.2%	2.7%	1.9%
5	1.71	981		4.1%	4.1%	4.0%	3.9%	3.8%	3.5%	3.3%	2.9%	2.5%	1.8%
6	1.81	659		5.1%	5.1%	5.0%	4.9%	4.7%	4.4%	4.1%	3.7%	3.1%	2.2%
7	1.69	356		6.7%	6.7%	6.6%	6.4%	6.2%	5.8%	5.4%	4.8%	4.0%	2.9%
8	2.00	283		8.2%	8.2%	8.1%	7.9%	7.6%	7.1%	6.6%	5.9%	4.9%	3.6%
9	1.71	719		4.8%	4.8%	4.7%	4.6%	4.4%	4.1%	3.8%	3.4%	2.9%	2.1%
10	1.68	322		7.1%	7.1%	6.9%	6.8%	6.5%	6.1%	5.7%	5.1%	4.3%	3.1%
Frequent driver (q1=1,2)													
Yes	1.80	5,091		1.8%	1.8%	1.8%	1.8%	1.7%	1.6%	1.5%	1.3%	1.1%	0.8%
No	1.82	925		4.3%	4.3%	4.3%	4.1%	4.0%	3.8%	3.5%	3.1%	2.6%	1.9%
Type of vehicle													
Car	1.82	3,457		2.3%	2.2%	2.2%	2.1%	2.1%	1.9%	1.8%	1.6%	1.4%	1.0%
Van or minivan	1.73	494		5.8%	5.8%	5.7%	5.5%	5.3%	5.0%	4.6%	4.1%	3.5%	2.5%
Pick-up truck	1.74	895		4.3%	4.3%	4.2%	4.1%	4.0%	3.7%	3.5%	3.1%	2.6%	1.9%
SUV	1.75	1,042		4.0%	4.0%	3.9%	3.8%	3.7%	3.5%	3.2%	2.9%	2.4%	1.8%

Table B-6. Estimated 95% Error Margins Overall and Various Population Subgroups (Continued)

	DEFF	n	P =	50, 50 0.2500	45, 55 0.2475	40, 60 0.2400	35, 65 0.2275	30, 70 0.2100	25, 75 0.1875	20, 80 0.1600	15, 85 0.1275	10, 90 0.0900	5, 95 0.0475
Gender													
Male	1.79	2,889		2.4%	2.4%	2.4%	2.3%	2.2%	2.1%	1.9%	1.7%	1.5%	1.1%
Female	1.84	3,127		2.4%	2.4%	2.3%	2.3%	2.2%	2.1%	1.9%	1.7%	1.4%	1.0%
Age group													
16-20	1.83	392		6.7%	6.7%	6.6%	6.4%	6.1%	5.8%	5.4%	4.8%	4.0%	2.9%
21-24	1.69	383		6.5%	6.5%	6.4%	6.2%	6.0%	5.6%	5.2%	4.6%	3.9%	2.8%
25-34	1.92	1,134		4.0%	4.0%	4.0%	3.8%	3.7%	3.5%	3.2%	2.9%	2.4%	1.8%
35-44	1.49	794		4.2%	4.2%	4.2%	4.0%	3.9%	3.7%	3.4%	3.0%	2.5%	1.8%
45-54	1.73	1,066		4.0%	3.9%	3.9%	3.8%	3.6%	3.4%	3.2%	2.8%	2.4%	1.7%
55-64	1.80	1,062		4.0%	4.0%	3.9%	3.8%	3.7%	3.5%	3.2%	2.9%	2.4%	1.8%
65+	1.62	1,072		3.8%	3.8%	3.7%	3.6%	3.5%	3.3%	3.1%	2.7%	2.3%	1.7%

Table B-7. Estimated 95% Error Margins for Various Sample Sizes

DEFF	n	P =	50, 50 0.2500	45, 55 0.2475	40, 60 0.2400	35, 65 0.2275	30, 70 0.2100	25, 75 0.1875	20, 80 0.1600	15, 85 0.1275	10, 90 0.0900	5, 95 0.0475
1.81	6,000		1.7%	1.7%	1.7%	1.6%	1.6%	1.5%	1.4%	1.2%	1.0%	0.7%
	5,500		1.8%	1.8%	1.7%	1.7%	1.6%	1.5%	1.4%	1.3%	1.1%	0.8%
	5,000		1.9%	1.9%	1.8%	1.8%	1.7%	1.6%	1.5%	1.3%	1.1%	0.8%
	4,500		2.0%	2.0%	1.9%	1.9%	1.8%	1.7%	1.6%	1.4%	1.2%	0.9%
	4,000		2.1%	2.1%	2.0%	2.0%	1.9%	1.8%	1.7%	1.5%	1.2%	0.9%
	3,500		2.2%	2.2%	2.2%	2.1%	2.0%	1.9%	1.8%	1.6%	1.3%	1.0%
	3,000		2.4%	2.4%	2.4%	2.3%	2.2%	2.1%	1.9%	1.7%	1.4%	1.0%
	2,500		2.6%	2.6%	2.6%	2.5%	2.4%	2.3%	2.1%	1.9%	1.6%	1.1%
	2,250		2.8%	2.8%	2.7%	2.6%	2.5%	2.4%	2.2%	2.0%	1.7%	1.2%
	2,000		2.9%	2.9%	2.9%	2.8%	2.7%	2.5%	2.4%	2.1%	1.8%	1.3%
	1,750		3.1%	3.1%	3.1%	3.0%	2.9%	2.7%	2.5%	2.2%	1.9%	1.4%
	1,500		3.4%	3.4%	3.3%	3.2%	3.1%	2.9%	2.7%	2.4%	2.0%	1.5%
	1,250		3.7%	3.7%	3.6%	3.6%	3.4%	3.2%	3.0%	2.7%	2.2%	1.6%
	1,000		4.2%	4.1%	4.1%	4.0%	3.8%	3.6%	3.3%	3.0%	2.5%	1.8%
	750		4.8%	4.8%	4.7%	4.6%	4.4%	4.2%	3.8%	3.4%	2.9%	2.1%
	500		5.9%	5.9%	5.8%	5.6%	5.4%	5.1%	4.7%	4.2%	3.5%	2.6%
	400		6.6%	6.6%	6.5%	6.3%	6.0%	5.7%	5.3%	4.7%	3.9%	2.9%
	300		7.6%	7.6%	7.4%	7.3%	7.0%	6.6%	6.1%	5.4%	4.6%	3.3%
	200		9.3%	9.3%	9.1%	8.9%	8.5%	8.1%	7.4%	6.6%	5.6%	4.1%
	150		10.8%	10.7%	10.5%	10.3%	9.9%	9.3%	8.6%	7.7%	6.5%	4.7%
	100		13.2%	13.1%	12.9%	12.6%	12.1%	11.4%	10.5%	9.4%	7.9%	5.7%
	50		18.6%	18.5%	18.2%	17.8%	17.1%	16.1%	14.9%	13.3%	11.2%	8.1%

Testing for Statistical Differences

Sampling error is also used to determine whether two population subgroups (or domains) are significantly different with respect to a certain statistic, that is, the difference in the sampled subgroup estimates is large enough that it would be unlikely to randomly occur if the statistics were the same for the subgroups. Consider the hypothesis test for comparing two domains:

H_0: $Y_1 = Y_2$ or $Y_1 - Y_2 = 0$

H_1: $Y_1 \neq Y_2$ or $Y_1 - Y_2 \neq 0$

One method to test whether Y_1 is different from Y_2 is to calculate a confidence interval around the difference in the sample estimates,[10] $(\hat{y}_1 - \hat{y}_2) \pm z_{1-\alpha/2}\sqrt{Var(\hat{y}_1 - \hat{y}_2)}$. If the interval does not contain 0, we conclude that Y_1 is different from Y_2 –the observed difference in the sample estimates is not likely to randomly occur if Y_1 was equal to Y_2, therefore there is evidence to indicate a difference in the population statistics. If the interval does not contain 0, we cannot conclude that Y_1 is different from Y_2 – there is insufficient evidence to indicate a difference in the population statistics.

$Var(\hat{y}_1 - \hat{y}_2) = Var(\hat{y}_1) + (\hat{y}_2)$, the sum of the variances for two population subgroups. The subgroup variances are estimated as described above. Table B-8 includes the estimated 95% error margins for the differences between subgroups of various. If the observed difference is less than or equal to the error margin, the difference is not statistically significant at the $\alpha = 0.05$ significance level. If it is greater than the error margin, the difference is statistically significant at the $\alpha = 0.05$ significance level.

[10] This method should only be used for large sample sizes. One rule of thumb is n_1 and n_2 both greater than 30.

Table B-8. Estimated 95% Error Margins For the Difference Between Two Subgroups

DEFF	n_1	P	n_2 = 6000	5000	4000	3000	2000	1500	1000	500	400	300	200	100	50
1.81	6000	50,50	2.4%	2.5%	2.7%	2.9%	3.4%	3.8%	4.5%	6.1%	6.8%	7.8%	9.5%	13.3%	18.7%
		40,60	2.4%	2.5%	2.6%	2.9%	3.3%	3.7%	4.4%	6.0%	6.7%	7.6%	9.3%	13.0%	18.3%
		30,70	2.2%	2.3%	2.5%	2.7%	3.1%	3.5%	4.1%	5.6%	6.2%	7.1%	8.7%	12.2%	17.2%
		20,80	1.9%	2.0%	2.2%	2.4%	2.7%	3.0%	3.6%	4.9%	5.4%	6.2%	7.6%	10.6%	15.0%
		10,90	1.4%	1.5%	1.6%	1.8%	2.0%	2.3%	2.7%	3.7%	4.1%	4.7%	5.7%	8.0%	11.2%
	5000	50,50	2.5%	2.6%	2.8%	3.0%	3.5%	3.9%	4.6%	6.2%	6.9%	7.8%	9.5%	13.3%	18.7%
		40,60	2.5%	2.6%	2.7%	3.0%	3.4%	3.8%	4.5%	6.1%	6.7%	7.7%	9.3%	13.0%	18.4%
		30,70	2.3%	2.4%	2.6%	2.8%	3.2%	3.6%	4.2%	5.7%	6.3%	7.2%	8.7%	12.2%	17.2%
		20,80	2.0%	2.1%	2.2%	2.4%	2.8%	3.1%	3.7%	4.9%	5.5%	6.3%	7.6%	10.7%	15.0%
		10,90	1.5%	1.6%	1.7%	1.8%	2.1%	2.3%	2.7%	3.7%	4.1%	4.7%	5.7%	8.0%	11.2%
	4000	50,50	2.7%	2.8%	2.9%	3.2%	3.6%	4.0%	4.7%	6.3%	6.9%	7.9%	9.6%	13.3%	18.8%
		40,60	2.6%	2.7%	2.9%	3.1%	3.5%	3.9%	4.6%	6.1%	6.8%	7.7%	9.4%	13.1%	18.4%
		30,70	2.5%	2.6%	2.7%	2.9%	3.3%	3.7%	4.3%	5.7%	6.3%	7.2%	8.8%	12.2%	17.2%
		20,80	2.2%	2.2%	2.4%	2.5%	2.9%	3.2%	3.7%	5.0%	5.5%	6.3%	7.6%	10.7%	15.0%
		10,90	1.6%	1.7%	1.8%	1.9%	2.2%	2.4%	2.8%	3.8%	4.1%	4.7%	5.7%	8.0%	11.3%
	3000	50,50	2.9%	3.0%	3.2%	3.4%	3.8%	4.2%	4.8%	6.4%	7.0%	8.0%	9.6%	13.4%	18.8%
		40,60	2.9%	3.0%	3.1%	3.3%	3.7%	4.1%	4.7%	6.2%	6.9%	7.8%	9.4%	13.1%	18.4%
		30,70	2.7%	2.8%	2.9%	3.1%	3.5%	3.8%	4.4%	5.8%	6.4%	7.3%	8.8%	12.3%	17.2%
		20,80	2.4%	2.4%	2.5%	2.7%	3.0%	3.3%	3.9%	5.1%	5.6%	6.4%	7.7%	10.7%	15.0%
		10,90	1.8%	1.8%	1.9%	2.0%	2.3%	2.5%	2.9%	3.8%	4.2%	4.8%	5.8%	8.0%	11.3%
	2000	50,50	3.4%	3.5%	3.6%	3.8%	4.2%	4.5%	5.1%	6.6%	7.2%	8.2%	9.8%	13.5%	18.9%
		40,60	3.3%	3.4%	3.5%	3.7%	4.1%	4.4%	5.0%	6.5%	7.1%	8.0%	9.6%	13.2%	18.5%
		30,70	3.1%	3.2%	3.3%	3.5%	3.8%	4.1%	4.7%	6.0%	6.6%	7.5%	9.0%	12.4%	17.3%
		20,80	2.7%	2.8%	2.9%	3.0%	3.3%	3.6%	4.1%	5.3%	5.8%	6.5%	7.8%	10.8%	15.1%
		10,90	2.0%	2.1%	2.2%	2.3%	2.5%	2.7%	3.1%	4.0%	4.3%	4.9%	5.9%	8.1%	11.3%
	1500	50,50	3.8%	3.9%	4.0%	4.2%	4.5%	4.8%	5.4%	6.8%	7.4%	8.3%	9.9%	13.6%	19.0%
		40,60	3.7%	3.8%	3.9%	4.1%	4.4%	4.7%	5.3%	6.7%	7.3%	8.2%	9.7%	13.3%	18.6%
		30,70	3.5%	3.6%	3.7%	3.8%	4.1%	4.4%	4.9%	6.2%	6.8%	7.6%	9.1%	12.5%	17.4%
		20,80	3.0%	3.1%	3.2%	3.3%	3.6%	3.9%	4.3%	5.4%	5.9%	6.7%	7.9%	10.9%	15.2%
		10,90	2.3%	2.3%	2.4%	2.5%	2.7%	2.9%	3.2%	4.1%	4.5%	5.0%	6.0%	8.2%	11.4%

Table B-8. Estimated 95% Error Margins For the Difference Between Two Subgroups (Continued)

DEFF	n_1	P	n_2 = 6000	5000	4000	3000	2000	1500	1000	500	400	300	200	100	50
1.81	1000	50,50	4.5%	4.6%	4.7%	4.8%	5.1%	5.4%	5.9%	7.2%	7.8%	8.7%	10.2%	13.8%	19.1%
		40,60	4.4%	4.5%	4.6%	4.7%	5.0%	5.3%	5.8%	7.1%	7.6%	8.5%	10.0%	13.5%	18.7%
		30,70	4.1%	4.2%	4.3%	4.4%	4.7%	4.9%	5.4%	6.6%	7.1%	8.0%	9.4%	12.7%	17.5%
		20,80	3.6%	3.7%	3.7%	3.9%	4.1%	4.3%	4.7%	5.8%	6.2%	6.9%	8.2%	11.1%	15.3%
		10,90	2.7%	2.7%	2.8%	2.9%	3.1%	3.2%	3.5%	4.3%	4.7%	5.2%	6.1%	8.3%	11.5%
	500	50,50	6.1%	6.2%	6.3%	6.4%	6.6%	6.8%	7.2%	8.3%	8.8%	9.6%	11.0%	14.4%	19.6%
		40,60	6.0%	6.1%	6.1%	6.2%	6.5%	6.7%	7.1%	8.2%	8.7%	9.4%	10.8%	14.2%	19.2%
		30,70	5.6%	5.7%	5.7%	5.8%	6.0%	6.2%	6.6%	7.6%	8.1%	8.8%	10.1%	13.2%	17.9%
		20,80	4.9%	4.9%	5.0%	5.1%	5.3%	5.4%	5.8%	6.7%	7.1%	7.7%	8.8%	11.6%	15.6%
		10,90	3.7%	3.7%	3.8%	3.8%	4.0%	4.1%	4.3%	5.0%	5.3%	5.8%	6.6%	8.7%	11.7%
	400	50,50	6.8%	6.9%	6.9%	7.0%	7.2%	7.4%	7.8%	8.8%	9.3%	10.1%	11.4%	14.7%	19.8%
		40,60	6.7%	6.7%	6.8%	6.9%	7.1%	7.3%	7.6%	8.7%	9.1%	9.9%	11.2%	14.4%	19.4%
		30,70	6.2%	6.3%	6.3%	6.4%	6.6%	6.8%	7.1%	8.1%	8.5%	9.2%	10.5%	13.5%	18.1%
		20,80	5.4%	5.5%	5.5%	5.6%	5.8%	5.9%	6.2%	7.1%	7.5%	8.1%	9.1%	11.8%	15.8%
		10,90	4.1%	4.1%	4.1%	4.2%	4.3%	4.5%	4.7%	5.3%	5.6%	6.0%	6.9%	8.8%	11.9%
	300	50,50	7.8%	7.8%	7.9%	8.0%	8.2%	8.3%	8.7%	9.6%	10.1%	10.8%	12.0%	15.2%	20.1%
		40,60	7.6%	7.7%	7.7%	7.8%	8.0%	8.2%	8.5%	9.4%	9.9%	10.5%	11.8%	14.9%	19.7%
		30,70	7.1%	7.2%	7.2%	7.3%	7.5%	7.6%	8.0%	8.8%	9.2%	9.9%	11.0%	14.0%	18.5%
		20,80	6.2%	6.3%	6.3%	6.4%	6.5%	6.7%	6.9%	7.7%	8.1%	8.6%	9.6%	12.2%	16.1%
		10,90	4.7%	4.7%	4.7%	4.8%	4.9%	5.0%	5.2%	5.8%	6.0%	6.5%	7.2%	9.1%	12.1%
	200	50,50	9.5%	9.5%	9.6%	9.6%	9.8%	9.9%	10.2%	11.0%	11.4%	12.0%	13.2%	16.1%	20.8%
		40,60	9.3%	9.3%	9.4%	9.4%	9.6%	9.7%	10.0%	10.8%	11.2%	11.8%	12.9%	15.8%	20.4%
		30,70	8.7%	8.7%	8.8%	8.8%	9.0%	9.1%	9.4%	10.1%	10.5%	11.0%	12.1%	14.8%	19.1%
		20,80	7.6%	7.6%	7.6%	7.7%	7.8%	7.9%	8.2%	8.8%	9.1%	9.6%	10.5%	12.9%	16.7%
		10,90	5.7%	5.7%	5.7%	5.8%	5.9%	6.0%	6.1%	6.6%	6.9%	7.2%	7.9%	9.7%	12.5%
	100	50,50	13.3%	13.3%	13.3%	13.4%	13.5%	13.6%	13.8%	14.4%	14.7%	15.2%	16.1%	18.6%	22.8%
		40,60	13.0%	13.0%	13.1%	13.1%	13.2%	13.3%	13.5%	14.2%	14.4%	14.9%	15.8%	18.3%	22.4%
		30,70	12.2%	12.2%	12.2%	12.3%	12.4%	12.5%	12.7%	13.2%	13.5%	14.0%	14.8%	17.1%	20.9%
		20,80	10.6%	10.7%	10.7%	10.7%	10.8%	10.9%	11.1%	11.6%	11.8%	12.2%	12.9%	14.9%	18.3%
		10,90	8.0%	8.0%	8.0%	8.0%	8.1%	8.2%	8.3%	8.7%	8.8%	9.1%	9.7%	11.2%	13.7%

Table B-8. Estimated 95% Error Margins For the Difference Between Two Subgroups (Continued)

DEFF	n_1	P	n_2 = 6000	5000	4000	3000	2000	1500	1000	500	400	300	200	100	50
1.81	50	50,50	18.7%	18.7%	18.8%	18.8%	18.9%	19.0%	19.1%	19.6%	19.8%	20.1%	20.8%	22.8%	26.4%
		40,60	18.3%	18.4%	18.4%	18.4%	18.5%	18.6%	18.7%	19.2%	19.4%	19.7%	20.4%	22.4%	25.8%
		30,70	17.2%	17.2%	17.2%	17.2%	17.3%	17.4%	17.5%	17.9%	18.1%	18.5%	19.1%	20.9%	24.2%
		20,80	15.0%	15.0%	15.0%	15.0%	15.1%	15.2%	15.3%	15.6%	15.8%	16.1%	16.7%	18.3%	21.1%
		10,90	11.2%	11.2%	11.3%	11.3%	11.3%	11.4%	11.5%	11.7%	11.9%	12.1%	12.5%	13.7%	15.8%

Weighting Methodology

Weights were calculated for the 6,016 completed interviews with people 16 and older residing in households in the United States (50 States and the District of Columbia). The population weights (DD_FINAL_POP_WT) sum to the December 2011 Census Bureau population estimate of 242,093,969 people 16 and older in the civilian noninstitutionalized population of the United States A sample weight (DD_FINAL_SAMP_WT) was also created. The sample weights sum to 6,016 completed interviews. SAS variable names are capitalized.

Base Sampling Weight

The overall random-digit-dialing sample consisted of three components (FPROJ). The first component (Landline Sample) was a NHTSA Region-stratified sample of landline telephone numbers. One person age 16 years and older was randomly selected from the households. The second component (Landline Screening Sample) was a NHTSA Region-stratified screening sample of landline telephone numbers. One person 16 to 34 years and older was randomly selected from the households with one or more age-eligible people. The third component (Cellular Sample) was a NHTSA Region-stratified sample of cellular telephone numbers. The cellular telephone was treated as a personal communication device and therefore an interview was attempted if the person was 16 or older. To be eligible for the interview the person also needed to be classified as cell-only individual or a cell-mostly individual. Cell-mostly people were defined as also having a landline telephone but "all or almost all calls are received on cell phones."

For each sample component a base sampling weight (BSW) was calculated for each NHTSA Region (XREGION). The base sampling weight equals the population count of telephone numbers in the NHTSA Region divided by the sample size of telephone numbers drawn from that NHTSA Region and released for interview attempts (see Table B-6).

Table B-9. Base Sampling Weights (BSW) by Sample Component

NHTSA Region	Landline Sample	Landline Screening Sample	Cellular Sample
1	5,204.71	2,632.63	9,868.48
2	5,186.19	2,598.74	9,872.69
3	5,205.28	2,607.62	9,931.47
4	5,225.54	2,613.10	9,918.51
5	5,209.94	2,591.44	9,879.75
6	5,238.33	2,614.55	9,869.05
7	5,228.13	2,632.14	9,893.85
8	5,228.10	2,623.25	9,864.53
9	5,181.01	2,599.00	9,849.48
10	5,168.47	2,614.92	9,956.98

The two landline sample components result in an oversampling of people 16 to 34 years relative to people 35 and older. This was accounted for in the weight calculations by adjusting downwards the weights of people 16 to 34. The sum of the base sampling weights of all people 16 to 34 in the landline sample was calculated (1,593,077). The sum of the base sampling weights of all people 16 to 34 in the landline sample and the landline screening sample was also calculated (3,386,699). The base sampling weights of people 16 to 34 in the two landline sample components were multiplied by the resulting ratio of 0.47039 to form the adjusted base sampling weight (BSW_ADJ). The adjusted base sampling weight for people 35 and older equals the base sampling weight.

Landline sample and landline screening sample people residing in households with two or more landline telephone numbers has a higher probability of selection compared to people living in households with one landline telephone number. The adjusted base sampling weight was divided by two if the person reported that their household had two or more landline telephone numbers (Q24F_R) to form the base sampling weight adjusted for multiple landline telephones (BSW_NUMPHONE). For landline and landline screening sample people with one landline telephone number and for cell phone sample people the base sampling weight adjusted for multiple landline telephones equals the adjusted base sampling weight.

The final step in the base sampling weight calculation process was to account for the random selection of one person 16 and older (NUM_16PLUS_R) from the landline sample and one person 16 to 34 (QSO1_R) from the landline screening sample. The base sampling weight adjusted for multiple landline telephones was multiplied by the number of eligible people in the household to form the base sampling weight adjusted for within household sampling (BSW_NUMADULT). For people in the cell phone sample the base sampling weight adjusted for within household sampling equals the base sampling weight adjusted for multiple landline telephones.

Interview Nonresponse Adjustment

Some age-eligible sampled people did not complete the interview. For each of the three sample components it was possible to classify sample people as interview respondents versus interview nonrespondents (ELIG). One can calculate an interview nonresponse adjustment for a given sample component by calculating the ratio of the sample count of respondents and nonrespondents to the sample count of respondents. The reciprocal of this ratio is the interview response rate.

We took advantage of sampling frame variables to calculate the interview nonresponse adjustment for each sample component by NHTSA Region (XREGION), and NHTSA Region by directory-listed residential status (XSTATUS) for the landline sample (see Table B-7). Directory-listed residential status was available for the landline sample. Past research has demonstrated that directory-listed (i.e., White Pages) households are generally more likely to respond to a survey than households that do not have a directory listed telephone number (Camburn et al., 1995) and we found that to also hold for this landline sample.

Table B-10. Interview Nonresponse Adjustment Factors

Sample Component	Nonresponse Adjustment Cell	Nonresponse Adjustment Factor
Cell Phone Sample	**NHTSA Region 1**	1.43590
Cell Phone Sample	**NHTSA Region 2**	1.62609
Cell Phone Sample	**NHTSA Region 3**	1.27311
Cell Phone Sample	**NHTSA Region 4**	1.46687
Cell Phone Sample	**NHTSA Region 5**	1.35613
Cell Phone Sample	**NHTSA Region 6**	1.35135
Cell Phone Sample	**NHTSA Region 7**	1.18056
Cell Phone Sample	**NHTSA Region 8**	1.29703
Cell Phone Sample	**NHTSA Region 9**	1.52290
Cell Phone Sample	**NHTSA Region 10**	1.19643
Landline Screening Sample	**NHTSA Region 1**	1.54286
Landline Screening Sample	**NHTSA Region 2**	1.52419
Landline Screening Sample	**NHTSA Region 3**	1.43478
Landline Screening Sample	**NHTSA Region 4**	1.36986
Landline Screening Sample	**NHTSA Region 5**	1.29688
Landline Screening Sample	**NHTSA Region 6**	1.31579
Landline Screening Sample	**NHTSA Region 7**	1.25641
Landline Screening Sample	**NHTSA Region 8**	1.12821
Landline Screening Sample	**NHTSA Region 9**	1.49398
Landline Screening Sample	**NHTSA Region 10**	1.22857
Landline Sample	**NHTSA Region 1, Directory Listed**	1.19018
Landline Sample	**NHTSA Region 1, Not Directory Listed**	1.22449
Landline Sample	**NHTSA Region 2, Directory Listed**	1.29392
Landline Sample	**NHTSA Region 2, Not Directory Listed**	1.50898
Landline Sample	**NHTSA Region 3, Directory Listed**	1.23616
Landline Sample	**NHTSA Region 3, Not Directory Listed**	1.26882
Landline Sample	**NHTSA Region 4, Directory Listed**	1.28803
Landline Sample	**NHTSA Region 4, Not Directory Listed**	1.35897
Landline Sample	**NHTSA Region 5, Directory Listed**	1.35083
Landline Sample	**NHTSA Region 5, Not Directory Listed**	1.41803
Landline Sample	**NHTSA Region 6, Directory Listed**	1.33333
Landline Sample	**NHTSA Region 6, Not Directory Listed**	1.31915
Landline Sample	**NHTSA Region 7, Directory Listed**	1.17600
Landline Sample	**NHTSA Region 7, Not Directory Listed**	1.28889
Landline Sample	**NHTSA Region 8, Directory Listed**	1.19318
Landline Sample	**NHTSA Region 8, Not Directory Listed**	1.34000
Landline Sample	**NHTSA Region 9, Directory Listed**	1.27149
Landline Sample	**NHTSA Region 9, Not Directory Listed**	1.42254
Landline Sample	**NHTSA Region 10, Directory Listed**	1.15323
Landline Sample	**NHTSA Region 10, Not Directory Listed**	1.25000

The interview nonresponse adjusted base sampling weight (NRA_BSW) equals **the base sampling** weight adjusted for within household sampling times the nonresponse adjustment factor.

Combining the Two Landline Samples With the Cell Phone Sample

All respondents were classified into one of 5 telephone service categories (I_TELEPHONE_STATUS_2):

1. Cell-only
2. Landline only
3. Cell phone sample, dual user, cell-mostly
4. Landline samples, dual user, cell-mostly
5. Landline samples, dual user, not cell-mostly

The two landline samples cannot be simply combined with the cell phone sample because dual user (landline and cell phone) people who are classified as cell-mostly can be sampled through the two landline samples or through the cell phone sample. This is referred to as a partial overlap dual frame design because dual user people who are not cell-mostly were sampled just through the two landline samples.

The samples were combined by compositing the cell-mostly people from the landline samples with the cell-mostly respondents from the cell phone sample. The compositing factor, λ, was calculated using the effective sample sizes for the two cell-mostly samples (see Table B-8). This process involved three steps. First, the design effect due to unequal weighting was calculated for each of the two telephone service groups. The design effect equals one plus the square of the coefficient of variation of the nonresponse adjusted base sampling weight. Second, the effective sample size for each of the two telephone service groups equals the sample size of completed interviews for the telephone service group divided by the design effect due to unequal weighting for that telephone service group. Third, the compositing factor for each of the two telephone service groups equals the effective sample size for the telephone service group divided by the total effective sample size (555.3 + 772.0 = 1,327.3). The two compositing factors sum to one.

Table B-11. Compositing Factors

Telephone Service Group	Sample Size of Completed Interviews	Design Effect Due to Unequal Weighting	Effective Sample Size	Compositing Factor (λ)
3. Cell phone sample, dual user, cell-mostly	560	1.008	555.3	0.4184
4. Landline samples, dual user, cell-mostly	982	1.272	772.0	0.5816

For the above two telephone service groups the composite weight (BSW_COMPOSITE) equals interview nonresponse adjusted base sampling weight times the compositing factor. For the other three telephone service groups the composite weight equals the interview nonresponse adjusted base sampling weight.

Raking to Population Control Totals

A survey sample may cover segments of the target population in proportions that do not match the proportions of those segments in the population itself. The differences may arise, for example, from sampling fluctuations, from nonresponse, or because the sample design was not able to cover the entire target population. In such situations one can often improve the relation between the sample and the population by adjusting the sampling weights of the cases in the sample so that the marginal totals of the adjusted weights on specified characteristics, referred to as control variables, agree with the corresponding totals for the population. This operation is known as raking ratio estimation, raking, or sample-balancing, and the population totals are usually referred to as control totals. Raking is most often used to reduce biases from nonresponse and noncoverage in sample surveys.

Raking usually proceeds one variable at a time, applying a proportional adjustment to the weights of the cases that belong to the same category of the control variable. The initial design weights in the raking process are often equal to the inverse of the selection probabilities and may have undergone some adjustments for unit nonresponse and noncoverage. The weights from the raking process are used in estimation and analysis.

The adjustment to control totals is sometimes achieved by creating a cross-classification of the categorical control variables (e.g., age categories × gender × race × household-income categories) and then matching the total of the weights in each cell to the control total. This approach, however, can spread the sample thinly over a large number of adjustment cells. It also requires control totals for all cells of the cross-classification. Often this is not feasible (e.g., control totals may be available for age × gender × race but not when those cells are subdivided by household income). The use of raking with marginal control totals for single variables (i.e., each margin involves only one control variable) often avoids many of these difficulties.

The procedure known as raking adjusts a set of data so that its marginal totals match control totals on a specified set of variables. The term "raking" suggests an analogy with the process of smoothing the soil in a garden plot by alternately working it back and forth with a rake in two perpendicular directions.

In a simple 2-variable example the marginal totals in various categories for the two control variables are known from the entire population, but the joint distribution of the two variables is known only from a sample. In the cross-classification of the sample, arranged in rows and columns, one might begin with the rows, taking each row in turn and multiplying each entry in the row by the ratio of the population total to the weighted sample total for that category, so that the row totals of the adjusted data agree with the population totals for that variable. The weighted column totals of the adjusted data, however, may not yet agree with the population totals for the column variable. Thus the next step, taking each column in turn, multiplies each entry in the column by the ratio of the population total to the current total for that category. Now the weighted column totals of the adjusted data agree with the population totals for that variable, but the new weighted row totals may no longer match the corresponding population totals.

This process continues, alternating between the rows and the columns, and close agreement on both rows and columns is usually achieved after a small number of iterations. The result is a tabulation for the population that reflects the relation of the two control variables in the sample. Raking can also adjust a set of data to control totals on three or more variables. In such situations the control totals often involve single variables, but they may involve two or more variables.

Ideally, one should rake on variables that exhibit an association with the key survey outcome variables and that are related to nonresponse and/or noncoverage. This strategy will reduce bias in the key outcome variables. In practice, other considerations may enter. A variable such as gender may not be strongly

related to key outcome variables or to nonresponse, but raking on it may be desirable to preserve the "face validity" of the sample. For more details on raking survey data see Battaglia et al. (2009).

Eight control variables were used in the raking:

1. Telephone service using 4 categories (I_TELEPHONE_STATUS_2_R)
2. NHTSA Region (XREGION)
3. Number of people 16 and older in the household (NUM_16PLUS_R)
4. Number of people 0 to 15 years old in the household (I_Q24B_R)
5. Home ownership status (I_Q24E1_R)
6. Education (I_Q24E_R)
7. Race/ethnicity (I_RACE_ETHNICITY_R)
8. Age group by gender (I_Q24_R_QSA3)

The control totals were obtained for people 16 and older living in households from the 2010 American Community Survey PUMS. The telephone service control totals were constructed from information published by the National Center for Health Statistics (Blumberg & Luke, 2012). The control totals for each variable were ratio-adjusted to sum to the December 2011 Census Bureau population estimate of 242,093,969 people 16 and older in the civilian noninstutionalized population of the United States.

The IGCV SAS raking macro (Izrael et al., 2009) was used calculate the final weights for the combined (landline and cell phone) sample. The population control totals and weighted sample distributions prior to raking are shown in Table 4 (see Weighted Distribution Prior to Raking, Iteration 0). The raking macro was set to a maximum of 100 iterations and a convergence criterion of a maximum difference of 0.05 percentage points between a control total percent and the corresponding weighted sample percent.

The IGCV raking macro used weight trimming during the raking iteration to help avoid extreme weights. The raking used the four trimming parameters shown below. Izrael et al. (2009) discuss weight trimming during raking and provide details on IGCV weight trimming procedures. Basically, the approach used decreases high weight values by not allowing weight values to exceed the respondent's BSW_COMPOSITE weight times factor A. The approach used also decreased high weight values by not allowing weight values to exceed the mean BSW_COMPOSITE weight times factor C. The weight trimming also avoided the situation where respondents end up with very small weights by not allowing weight values to be lower than the respondent's BSW_COMPOSITE times factor B. The approach used also increased low weight values by not allowing weight values to be below the mean BSW_COMPOSITE weights times factor D.

IGCV weight trimming values:

A = 4.0 /* weight will be decreased to individual weight times A */

B = 0.25 /* weight will be increased to individual weight times B */

C = 6.0 /* weight will be decreased to mean weight times C */

D = 0.167 /* weight will be increased to mean weight times D */

Appendix B References

Battaglia, M., Izrael, D., Hoaglin, D., & Frankel, M. (2009, April). Practical considerations in raking Survey data. *Survey Practice*. Retrieved from http://surveypractice.wordpress.com/2009/06/29/raking-survey-data/

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Camburn, D. P., Lavrakas, P. J., Battaglia, M. P., Massey, J. T., & Wright, R. A. (1995). Using advance letters in random-digit-dialing telephone surveys. *1995 Proceedings of the Section on Survey Research Methods* (pp. 969-974). American Statistical Association.

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APPENDIX C

Output for Raking With Trimming Weight by Individual and Global Cap Value Method

The raking output is shown in the Table - Weighted Distribution After Raking.

Raking Results

RAKING WITH TRIMMING WEIGHT BY INDIVIDUAL AND GLOBAL CAP VALUE (IGCV) METHOD

Sample size of completed interviews	**6,016**
Raking input weight (adjusted to population total)	**BSW_COMPOSITE**
Minimum value of raking input weight	**2265.74**
Maximum value of raking input weight	**89846.35**
Coefficient of variation of raking input weight	**0.61**
Global low weight cap value factor: Mean input weight times - (D)	**0.167**
Global high weight cap value factor: Mean input weight times - (C)	**6.0**
Individual low weight cap value (ILCV) factor: Respondent's weight times - (B)	**0.25**
Individual high weight cap value (IHCV) factor: Respondent's weight times - (A)	**4**

The FREQ Procedure

WEIGHTED DISTRIBUTION PRIOR TO RAKING. (ITERATION 0)

I_TELEPHONE_STATUS_2_R	Input Weight Sum of Weights[11]	Population Total[12]	Sum of Weights Difference[13]	% of Input Weights[14]	Population %[15]	Difference in %[16]
1 cell only	121651755.7	79721544	41930211.70	50.250	32.930	17.320
2 landline only	8552619.36	20965338	-12412718.4	3.533	8.660	-5.127
3 cell/landline sample dual users cell mostly	32599397.75	42269607	-9670209.24	13.466	17.460	-3.994
6 landline sample dual users not cell mostly	79290196.20	99137480	-19847284.1	32.752	40.950	-8.198

[11] Weighted count of adults based on BSW_COMPOSITE.
[12] Population count of adults based on American Community Survey.
[13] Input weight sum of weights minus population total.
[14] Weighted percent of adults based on BSW_COMPOSITE.
[15] Population percent of adults based on American Community Survey.
[16] % of input weights minus population %.

The FREQ Procedure

REGION	Input Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Input Weights	Population %	Difference in %
1 NHTSA Region 1	11788948.68	11498562	290387.09	4.870	4.750	0.120
2 NHTSA Region 2	33199801.79	32524501	675300.91	13.714	13.435	0.279
3 NHTSA Region 3	25451987.85	24447771	1004216.82	10.513	10.098	0.415
4 NHTSA Region 4	37381859.88	35126764	2255096.37	15.441	14.510	0.931
5 NHTSA Region 5	40415626.74	40554396	-138769.71	16.694	16.752	-0.057
6 NHTSA Region 6	28482848.18	29303910	-821061.85	11.765	12.104	-0.339
7 NHTSA Region 7	13751759.58	12942059	809700.57	5.680	5.346	0.334
8 NHTSA Region 8	10226846.65	9660108	566738.31	4.224	3.990	0.234
9 NHTSA Region 9	29946763.45	35123726	-5176963.00	12.370	14.508	-2.138
10 NHTSA Region 10	11447526.19	10912172	535354.49	4.729	4.507	0.221

The FREQ Procedure

Number of persons 16+ in HH	Input Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Input Weights	Population %	Difference in %
1 Person 16+ in HH	74977805.35	37505709	37472096.21	30.971	15.492	15.478
2 Persons 16+ in HH	108387723.3	117123793	-8736069.47	44.771	48.379	-3.609
3 Persons 16+ in HH	34287972.08	49335012	-15047040.2	14.163	20.378	-6.215
4+ Persons 16+ in HH	24440468.29	38129455	-13688986.5	10.095	15.750	-5.654

The FREQ Procedure

Imputed value of Q24B : Number of persons in HH under 16 years	Input Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Input Weights	Population %	Difference in %
1 0 Children under 16 in HH	162356500.5	157964058	4392442.26	67.063	65.249	1.814
2 1 Child under 16 in HH	36989111.36	38612796	-1623684.79	15.279	15.950	-0.671
3 2 Children under 16 in HH	28978271.63	29007247	-28975.46	11.970	11.982	-0.012
4 3+ Children under 16 in HH	13770085.47	16509867	-2739782.01	5.688	6.820	-1.132

The FREQ Procedure

Imputed value of Q24E1 : Tenure	Input Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Input Weights	Population %	Difference in %
1 Own	153873777.3	166230650	-12356873.0	63.560	68.664	-5.104
2 Rent	88220191.69	75863319	12356873.00	36.440	31.336	5.104

The FREQ Procedure

Imputed value of Q24E : Education	Input Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Input Weights	Population %	Difference in %
1 Less than HS	21313941.82	41985786	-20671843.8	8.804	17.343	-8.539
2 HS/GED	68274183.60	66849482	1424702.05	28.202	27.613	0.588
3 Some college	58616390.92	71652752	-13036361.2	24.212	29.597	-5.385
4 College graduate	93889452.66	61605950	32283503.05	38.782	25.447	13.335

The FREQ Procedure

Imputed value : Race Ethnicity	Input Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Input Weights	Population %	Difference in %
1 Hispanic	30954545.12	35342925	-4388379.84	12.786	14.599	-1.813
2 White Nonhispanic	168672122.6	161436752	7235370.11	69.672	66.684	2.989
3 Black Nonhispanic	20625808.44	27879936	-7254127.51	8.520	11.516	-2.996
4 Asian/NHOPI Nonhispanic	9554626.39	12094157	-2539530.65	3.947	4.996	-1.049
5 AI/AN Nonhispanic	3478811.82	1531178	1947633.76	1.437	0.632	0.804
6 Other/Multiracial Nonhispanic	8808054.63	3809020	4999034.13	3.638	1.573	2.065

The FREQ Procedure

Age group by Gender	Input Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Input Weights	Population %	Difference in %
11 16-24, Male	17861071.74	18793464	-932392.17	7.378	7.763	-0.385
12 16-24, Female	14028602.50	18256925	-4228322.33	5.795	7.541	-1.747
21 25-29, Male	13013213.06	10292008	2721205.15	5.375	4.251	1.124
22 25-29, Female	9089586.55	10577641	-1488054.44	3.755	4.369	-0.615
31 30-34, Male	10073154.84	9855219	217936.15	4.161	4.071	0.090
32 30-34, Female	10135005.35	10177155	-42149.50	4.186	4.204	-0.017
41 35-39, Male	9550390.90	9989841	-439450.43	3.945	4.126	-0.182
42 35-39, Female	8209992.93	10394638	-2184644.90	3.391	4.294	-0.902
51 40-49, Male	22746131.20	21581222	1164909.28	9.396	8.914	0.481
52 40-49, Female	18611664.16	22501190	-3889526.21	7.688	9.294	-1.607
61 50-59, Male	22372514.95	20526706	1845809.22	9.241	8.479	0.762
62 50-59, Female	26145607.68	21909400	4236207.21	10.800	9.050	1.750
71 60-69, Male	17344861.11	14213132	3131729.42	7.165	5.871	1.294
72 60-69, Female	17711446.08	15794147	1917298.86	7.316	6.524	0.792
81 70+ , Male	10311029.18	11449643	-1138614.25	4.259	4.729	-0.470
82 70+ , Female	14889696.76	15781638	-891941.07	6.150	6.519	-0.368

******* Program terminated at iteration 8 because all current percents differ from target percents by less than 0.05 *******

The FREQ Procedure

WEIGHTED DISTRIBUTION AFTER RAKING

I_TELEPHONE_STATUS_2_R	Output Weight Sum of Weights[17]	Population Total[18]	Sum of Weights Difference[19]	% of Output Weights[20]	Population %[21]	Difference in %[22]
1 cell only	79738802.48	79721544	17258.49	32.937	32.930	0.007
2 landline only	20936197.84	20965338	-29139.88	8.648	8.660	-0.012
3 cell/landline sample dual users cell mostly	42288670.83	42269607	19063.84	17.468	17.460	0.008
6 landline sample dual users not cell mostly	99130297.85	99137480	-7182.46	40.947	40.950	-0.003

Weighted Distribution After Raking

The FREQ Procedure

REGION	Output Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Output Weights	Population %	Difference in %
1 NHTSA Region 1	11498000.02	11498562	-561.58	4.749	4.750	-0.000
2 NHTSA Region 2	32522418.68	32524501	-2082.20	13.434	13.435	-0.001
3 NHTSA Region 3	24451455.69	24447771	3684.66	10.100	10.098	0.002
4 NHTSA Region 4	35131406.38	35126764	4642.88	14.511	14.510	0.002
5 NHTSA Region 5	40568228.01	40554396	13831.56	16.757	16.752	0.006
6 NHTSA Region 6	29306365.68	29303910	2455.65	12.105	12.104	0.001
7 NHTSA Region 7	12944929.38	12942059	2870.36	5.347	5.346	0.001
8 NHTSA Region 8	9658818.78	9660108	-1289.56	3.990	3.990	-0.001
9 NHTSA Region 9	35103306.89	35123726	-20419.56	14.500	14.508	-0.008
10 NHTSA Region 10	10909039.51	10912172	-3132.20	4.506	4.507	-0.001

The FREQ Procedure

Number of persons 16+ in HH	Output Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Output Weights	Population %	Difference in %
1 Person 16+ in HH	37512064.26	37505709	6355.12	15.495	15.492	0.003
2 Persons 16+ in HH	117137715.6	117123793	13922.82	48.385	48.379	0.006
3 Persons 16+ in HH	49327285.31	49335012	-7727.00	20.375	20.378	-0.003
4+ Persons 16+ in HH	38116903.86	38129455	-12550.95	15.745	15.750	-0.005

[17] Weighted count of adults based on raked (output) weight.
[18] Population count of adults based on American Community Survey.
[19] Output weight sum of weights minus population total.
[20] Weighted percent of adults based on raked (output) weight.
[21] Population percent of adults based on American Community Survey.
[22] % of output weights minus population %.

The FREQ Procedure

Imputed value of Q24B : Number of persons in HH under 16 years	Output Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Output Weights	Population %	Difference in %
1 0 Children under 16 in HH	157893067.6	157964058	-70990.72	65.220	65.249	-0.029
2 1 Child under 16 in HH	38637761.72	38612796	24965.57	15.960	15.950	0.010
3 2 Children under 16 in HH	29040197.53	29007247	32950.44	11.995	11.982	0.014
4 3+ Children under 16 in HH	16522942.20	16509867	13074.72	6.825	6.820	0.005

The FREQ Procedure

Imputed value of Q24E1 : Tenure	Output Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Output Weights	Population %	Difference in %
1 Own	166147943.9	166230650	-82706.40	68.630	68.664	-0.034
2 Rent	75946025.10	75863319	82706.40	31.370	31.336	0.034

The FREQ Procedure

Imputed value of Q24E : Education	Output Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Output Weights	Population %	Difference in %
1 Less than HS	41973965.37	41985786	-11820.30	17.338	17.343	-0.005
2 HS/GED	66844737.52	66849482	-4744.03	27.611	27.613	-0.002
3 Some college	71662042.56	71652752	9290.39	29.601	29.597	0.004
4 College graduate	61613223.55	61605950	7273.93	25.450	25.447	0.003

The FREQ Procedure

Imputed value : Race Ethnicity	Output Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Output Weights	Population %	Difference in %
1 Hispanic	35368929.51	35342925	26004.56	14.610	14.599	0.011
2 White Nonhispanic	161394634.5	161436752	-42118.04	66.666	66.684	-0.017
3 Black Nonhispanic	27881090.57	27879936	1154.63	11.517	11.516	0.000
4 Asian/NHOPI Nonhispanic	12107406.28	12094157	13249.24	5.001	4.996	0.005
5 AI/AN Nonhispanic	1531595.24	1531178	417.18	0.633	0.632	0.000
6 Other/Multiracial Nonhispanic	3810312.94	3809020	1292.44	1.574	1.573	0.001

The FREQ Procedure

Agegroup by Gender	Output Weight Sum of Weights	Population Total	Sum of Weights Difference	% of Output Weights	Population %	Difference in %
11 16-24, Male	18793463.91	18793464	0.00	7.763	7.763	0.000
12 16-24, Female	18256924.83	18256925	0.00	7.541	7.541	0.000
21 25-29, Male	10292007.90	10292008	0.00	4.251	4.251	0.000
22 25-29, Female	10577640.99	10577641	0.00	4.369	4.369	0.000
31 30-34, Male	9855218.68	9855219	0.00	4.071	4.071	0.000
32 30-34, Female	10177154.85	10177155	0.00	4.204	4.204	0.000
41 35-39, Male	9989841.33	9989841	-0.00	4.126	4.126	-0.000
42 35-39, Female	10394637.83	10394638	0.00	4.294	4.294	0.000
51 40-49, Male	21581221.92	21581222	-0.00	8.914	8.914	-0.000
52 40-49, Female	22501190.37	22501190	0.00	9.294	9.294	0.000
61 50-59, Male	20526705.73	20526706	0.00	8.479	8.479	0.000
62 50-59, Female	21909400.47	21909400	-0.00	9.050	9.050	-0.000
71 60-69, Male	14213131.68	14213132	-0.00	5.871	5.871	-0.000
72 60-69, Female	15794147.22	15794147	0.00	6.524	6.524	0.000
81 70+ , Male	11449643.44	11449643	0.00	4.729	4.729	0.000
82 70+ , Female	15781637.83	15781638	-0.00	6.519	6.519	-0.000

Number of Respondents Who Had Their Weights Decreased by the Trimming: **388.**

Number of Respondents Who Had Their Weights Increased by the Trimming: **1,071.**

Raking output weight: DD_FINAL_POP_WT

The UNIVARIATE Procedure

Weight Variable	Mean Weight	Minimum Weight	Maximum Weight	Coefficient of Variation
BSW_COMPOSITE	40,241.68	2,65.74	89,846.35	0.607
DD_FINAL_POP_WT	40,241.68	6,720.36	241,450.36	0.865

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