

Following is an excerpt from a National Highway Traffic Safety Administration (NHTSA) report entitled, "Volume I: Findings; National Survey of Distracted and Drowsy Driving Attitudes and Behavior: 2002," which describes a survey conducted by the Gallup Organization.

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The full report can be found on the NHTSA web site:

<http://www.nhtsa.dot.gov/people/injury/research/distracted03>

THE GALLUP ORGANIZATION

National Survey of Distracted and Drowsy Driving
Attitudes and Behaviors: 2002

VOLUME I – FINDINGS REPORT

Submitted to:

National Highway Traffic Safety Administration
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16. Abstract <p>This report represents the findings on distracted driving (including cell phone use) and drowsy driving. The data come from a pair of studies undertaken by National Highway Traffic Safety Administration (NHTSA) to better understand drivers' behaviors and attitudes regarding speeding, unsafe driving, distracted and drowsy driving. This report, Volume I: <i>Findings--National Survey of Distracted and Drowsy Driving</i> reports respondent's behaviors and attitudes on various topics related to distracted and drowsy driving. Volume II: <i>Findings--Speeding and Unsafe Driving</i> presents the data on those topics, while Volume III: <i>Methods Report</i> describes the methods used to conduct the interviews and analyze the data, and also contains the questionnaires. The data will be used to help identify the extent to which potentially distracting behaviors are undertaken by drivers and to understand the characteristics of those engaging in these behaviors so that programs can be developed to reduce these behaviors where they have been shown to be dangerous. The data come from two surveys each conducted among nationally representative samples of drivers during the Spring of 2002. Interviews were conducted with a total of 4,010 drivers in the U.S.</p> <p>The survey findings show that most drivers at least occasionally engage in behaviors that draw some of their attention away from their driving task. The most common of these behaviors include general activities of talking with other passengers (81%), changing radio stations or CDs (66%), and eating or drinking while driving (49%). While it is estimated that more than a billion driving trips are made weekly by drivers engaging in <u>each</u> of these behaviors, fewer than one in four drivers perceive these particular activities as distracting or as making driving much more dangerous. About one in four drivers uses a cell phone while driving for either inbound (26%) or outbound calls (25%), while a similar proportion deals with children in a back seat (24%). Close to one-half of drivers perceive these behaviors to make driving much more dangerous, although drivers who use cell phones are only half as less likely as non-users to feel cell phone use is dangerous. Regarding drowsy driving, over a third, (37%) of drivers report having nodded off or falling asleep at least once since they began driving. Eight percent have done so in the past six months. Nearly half of drivers who nodded off report doing so between 9:00PM and 6:00AM.</p> <p>About one quarter (26%) of drivers have been involved in a crash in the past five years. About 3.5% of drivers attribute a crash they've had in the past 5 years to their being distracted (including 0.8% looking for something outside of their vehicle and 0.7% dealing with children), seven-tenths of 1 percent (0.7%) attribute a crash they've had to drowsy driving, while one-tenth of 1 percent (0.1%) of drivers attribute a crash they've had to their cell phone use.</p>					
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Executive Summary

Background

The National Highway Traffic Safety Administration's (NHTSA) mission is to save lives, prevent injuries, and reduce traffic-related healthcare and other economic costs. While much focus has been placed in recent years on alcohol-related driving and speeding, less focus has been paid to other forms of potentially unsafe driving behaviors that draw drivers' attention away from the primary task of driving such as distracted and drowsy driving. However, a recent surge in legislation meant to curb cell phone use while driving has increased interest in these and other forms of potentially distracting activities for drivers.

NHTSA undertook this nationally representative survey of drivers in order to collect data on the nature and scope of the distracted driving problem with the intent of understanding how serious the problem is in the public's eyes, and what countermeasures the public may accept to control distracted driving.

Telephone interviews were conducted with a nationally representative sample of 4,010 drivers (age 16 or older) in the United States between February 4 and April 14, 2002. The data presented in this document are based on the self-reported responses from these surveyed drivers.

Key Findings

Engaging in Potentially Distracting Behaviors While Driving

We considered 12 potentially distracting behaviors in this study and asked drivers how often they personally engaged in each behavior while driving.

The vast majority of *drivers* engage in two of the behaviors on *at least some driving trips*, including:

- Talking with other passengers (81%)
- Changing radio stations or looking for CDs or tapes (66%)

Nearly half (49%) eat or drink while driving at least some of the time, while the following three activities are performed by about one in four drivers (at least some of the time):

- Making outgoing calls on a cell phone (25%)
- Taking incoming calls on a cell phone (26%)
- Dealing with children riding in the rear seat (24%)

The other six activities are undertaken by about one in ten or fewer drivers on at least some driving trips:

- Reading a map or directions while driving (12%)
- Personal grooming (8%)
- Reading printed material (4%)
- Responding to a beeper or pager (3%)
- Using wireless remote Internet access (2%)
- Using telematics such as in-car navigation or crash avoidance systems (2%)

Frequency of Engaging in Potentially Distracting Behaviors While Driving

Based on projections from the sampled drivers, drivers report making an estimated 4.2 billion one-way driving trips in a typical week. The preliminary estimate from the 2001 National Household Travel Survey (NHHTS¹), which acquired personal travel data between March 2001 and May 2002, reported that drivers made about 6.0 billion one-way trips each week. The higher NHHTS figure is likely due to interviewing differences and questionnaire design (eg. this study did not undertake to acquire extensive data on trip detail or segment definition as did the NHHTS). The measurement in this survey is intended to obtain *relative* estimates of engagement in potentially distracting behaviors in relation to other behaviors. Consequently, compared to the NHHTS, the actual estimates of trips could be *underestimated* by as much as 30%.

To provide estimates of weekly trips involving each behavior, the reported proportion of trips in which the driver engages in a given behavior — such as “on all or most trips” or “on about three-quarters of driving trips” — was applied to the number of total reported weekly driving trips. The formula used in these calculations can be found on page 24 of the report.

Drivers make the following *estimated number of driving trips* each week while engaging in a potentially distracting behavior on at least some portion of a driving trip:

- 2.38 billion trips while talking to passengers (56% of all trips)
- 1.92 billion trips while changing the radio station or looking for CDs or tapes (45% of all trips)
- 1.25 billion trips while eating or drinking (30% of all trips)
- 792 million trips while taking incoming cell phone calls (19% of all trips)
- 776 million trips while making outgoing cell phone calls (18% of all trips)
- 776 million trips while dealing with children in the back seat (18% of all trips)
- 414 million trips while looking at maps or directions (10% of all trips)
- 349 million trips while undertaking personal grooming (8% of all trips)
- 131 million trips while responding to a beeper or pager (3% of all trips)
- 116 million trips while using wireless Internet access (3% of all trips)
- 59 million trips while using navigation or crash avoidance systems (1% of all trips)

Wireless Cell Phone Use

While six in ten (60%) drivers report having a cellular or wireless phone, more than half of those with cell phones say they never or rarely use the cell phone while driving to make outgoing or take incoming calls (58% and 56% respectively). While a small proportion of drivers use cell phones only for outbound (5%) or only for inbound (4%) calls, 21% use them for both inbound and outbound calls at least occasionally. Thus about 30% of all drivers use a cell phone while driving to make outgoing OR incoming calls on at least some of their driving trips.

Wireless phone use is currently receiving a great deal of legislative attention with several municipalities recently having passed (or considering passing) laws that prohibit or limit cell phone use (or hand-held cell phone use) while driving. Some of the legislation seems to be based on the belief that the use of hands-free devices is less distracting and may be preferable to hand-held phones. However, others believe that any activity involving mental (such as conversation)

¹ 2001 National Household Travel Survey. User's Guide, Version 1 (preliminary release). U.S. DOT: BTS & FHWA, January 2003.

or physical (such as eating or playing with the radio) involvement distracts drivers, and that hands-free phones simply offer convenience to drivers.

The current study finds that about one-third (34%) of drivers who do use a cell phone while driving use a hands-free model with speakerphone or head phones (32% of those using cell phones for outbound calls and 36% using them for inbound calls). About 263 million of the 776 million weekly trips made using a cell phone for outgoing calls are made using a hands-free phone. While approximately 291 million of the 792 weekly trips using a cell phone for incoming calls are made using a hands-free phone.

Cell phone using drivers estimate that they spend an average of 4.5 minutes per call while driving. However, 13% of drivers typically spend 10 minutes or more per call.

Involvement in Crash as a Result of Wireless Phone Use

Approximately one in four (26%) drivers report involvement in a motor vehicle crash in the past five years. One tenth of one percent (0.1%) of all drivers (0.5% of drivers who use a cell phone while driving) attribute a crash they've had to cell phone use. This equates to an *estimated* 292,000 drivers who report involvement in a crash they attribute to cell phone use in the past five years.

Involvement in a Crash as a Result of Distracted Driving

While cell phones are reported to contribute to some automobile crashes, other forms of distracted driving appear to play a much more significant role. Several behaviors reportedly account for many more crashes than do cell phones.

About 3.5% of all drivers have been involved in a crash in the past five years they attribute to their being distracted — equating to an estimated 6.0 million to 8.3 million drivers.

Drivers involved in a distracted-related crash attribute their distraction to the following activities:

- Looking for something outside of the car (building, street sign, etc.) (23% of drivers in a distracted related crash; 0.8% of all drivers)
- Dealing with children or other passengers (19%; 0.7% of all drivers)
- Looking for something inside the car (14%; 0.5% of all drivers)
- Another driver (11%; 0.4% of all drivers)
- Personal thoughts/thinking (5%; 0.2% of all drivers)
- Looking at an animal outside of the car (3%; 0.1% of all drivers)
- Dealing with technology (primarily radio) (2%; 0.1% of all drivers)
- Other distractions (23%; 0.8% of all drivers)

Perceptions of Actions That Distract Drivers

We asked drivers to rate 12 potentially distracting behaviors that may make driving more dangerous. Drivers perceive the following four behaviors to be the most distracting:

- Reading printed materials such as a book, newspaper, or mail (80% feel it makes driving much more dangerous)
- Using wireless remote Internet equipment (such as a PDA or wireless e-mail) (63%)
- Personal grooming (61%)
- Looking at maps or directions (55%)

Slightly less than half of all drivers feel that engaging in the following behaviors while driving make driving “much more dangerous”:

- Making outgoing cell phone calls (48%)
- Taking incoming cell phone calls (44%)
- Answering or checking a pager or beeper (43%)
- Dealing with children in the back seat (40%)

One in four or fewer drivers perceive the following activities to be distracting while driving and make driving “much more dangerous”:

- Using navigation or crash avoidance systems (23%)
- Changing the radio station or looking for CDs or tapes (18%)
- Eating or drinking (17%)
- Talking to other passengers (4%)

Not surprisingly, drivers who themselves engage in each behavior are less likely to feel it makes driving more dangerous than those who do not engage in the behavior.

Perceived Severity of the Threat of Others’ Behavior

Not only do drivers perceive distracting behaviors as more dangerous, but drivers also feel some actions are a major threat to their personal safety. Seven out of ten (70%) drivers feel it is a major threat to their safety when other drivers look at maps or directions while driving. Fifty-two percent (52%) feel that others’ use of cell phones while driving is a major threat to their personal safety. These relative perceptions of reading and using a cell phone while driving as major threats to one’s personal safety are similar to those reported earlier on overall perceptions of how dangerous these activities are (70% and 48% respectively).

Drivers who do not use cell phones while driving are three times as likely as drivers who use them to feel such behavior by others is a major personal safety threat.

Support for Initiatives to Curtail Cell Phone Use While Driving

The majority of drivers support the five potential actions measured in the survey to reduce cell phone use while driving. Specifically, they support:

- Increased public awareness of the risk of wireless phone use while driving (88% support)
- A restriction on hand-held phones while driving — only allowing hands-free or voice-activated car-mounted phones (71%)
- Insurance penalties for being involved in a crash while using a cell phone (67%)
- Double or triple fines for traffic violations involving cell phone use (61%)
- A ban on all wireless phone use while a car is moving (except for 911 calls) (57%)

While drivers who use cell phones are as likely as non-users to support initiatives involving increased awareness of the risks of cell phone use while driving, and a majority support restrictions on hand held phone use while driving, they generally do not support the use of increased traffic fines or a ban on wireless phones. Specifically, cell phone-using drivers show much lower support than non-users for:

- Increased fines for traffic violations when a cell phone is involved (only about 40% of drivers using cell phones support increased fines compared to 70% support by drivers who do not use cell phones while driving).
- A ban on all wireless phone use in a moving car (about a quarter support such an action as compared to 69% support for drivers who don't use cell phones)

Drowsy Driving

This study also examined prevalence and conditions of drowsy driving. While the issue of drowsy driving is not currently receiving the attention in the media or among the general public as is the use of cell phones while driving, a significant number of drivers have experienced drowsy driving. Specifically:

- Thirty-seven percent (37%) of drivers have nodded off for at least a moment or fallen asleep while driving at least once in their driving career
- Eight percent (8%) have done so in the past six months

Nodding off or falling asleep recently is most prevalent among drivers age 21-29 (13%) and males (11%) and least prevalent among drivers over age 64 (4%) and females (5%).

Characteristics of Drowsy Driving Trips

The average drowsy driving experience is associated with the following characteristics:

- Driver averaged 6.0 hours of sleep the previous night (and 24% had slept fewer than five hours)
- Driver had been driving for an average of 2.9 hours (but 22% had been driving for more than four hours)
- Occurred while driving on an interstate type highway with posted speeds of 55 mph or higher (59%)
- Nearly half (48%) nodded off between 9 p.m. and 6 a.m.

Involvement in a Crash as a Result of Drowsy Driving

In the past five years, about 0.7% of drivers have been involved in a crash that they attribute to drowsy driving — amounting to an estimated 800,000 to 1.88 million drivers.

Preventative Actions for Drowsy Driving

When asked what actions they take when they feel sleepy while driving, 43% of drivers report they pull over and rest or nap. While drivers may feel a social desirability to offer this response, it may also depend on the level of sleepiness experienced. The severity of a driver's drowsiness was not accounted for in this study.

Other key behaviors reported by drivers to combat sleepiness while driving include:

- Open the window (26%)
- Get coffee, soda, or caffeine (17%)
- Pull over/get off the road (15%)
- Play the radio loudly (14%)

Chapter 4: Drowsy Driving

Drowsy driving can be considered another form of distracted driving in that drivers experiencing drowsiness do not apply their full attention to the driving task. Yet, drowsy driving is a problem of its own.

In the 1996 appropriations bill for the U.S. Department of Transportation, the Senate Appropriations Committee report noted that "NHTSA data indicate that in recent years there have been about 56,000 crashes annually in which driver drowsiness/fatigue was cited by police. Annual averages of roughly 40,000 nonfatal injuries and 1,550 fatalities result from these crashes. It is widely recognized that these statistics underreport the extent of these types of crashes. These statistics also do not deal with crashes caused by driver inattention, which is believed to be a larger problem."

This section provides information on the driving age public's experiences and perceptions regarding drowsy driving. Specifically it covers the following topics:

- Experience with driving while drowsy
- Characteristics of most recent drowsy driving trip
- Measures to prevent falling asleep while driving
- Outcomes of drowsy driving
- Perceived threat of drowsy driving

Experiences With Drowsy Driving

Nodding Off While Driving

Overall, 37% of the driving population says they have nodded off for at least a moment or fallen asleep while driving at some time in their life. Males (49%) are almost twice as likely to report having nodded off while driving than are female drivers (26%).

Not surprisingly, newer drivers (i.e. those under age 21) who have had less time driving overall, are only half as likely to have experienced nodding off while driving (18%) as older drivers.

And, just as drivers over age 64 are less likely to undertake behaviors that are potentially distracting, these drivers are also less likely to have nodded off while driving (30%).

[Figure 13-A]

Recency of Drowsy Driving

While 37% of drivers have nodded off while driving at some point in their lives, approximately three out of ten (29%) of these drivers report that they last experienced this problem within the past year, with just one in ten (10%) saying this happened to them within the past month. This amounts to about 4% of the driving population or an estimated 7.5 million drivers who have nodded off while driving within the past month. An additional 4% of drivers (11% of those who have ever nodded off at the wheel) report having done so within the past two to six months.

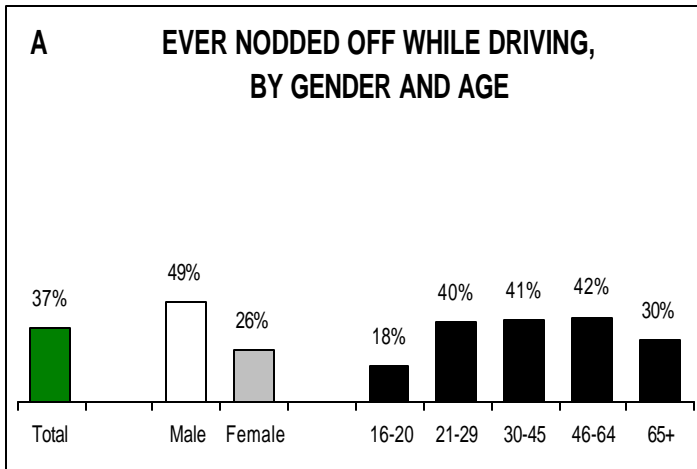
[Figure 13-B]

By Gender and Age

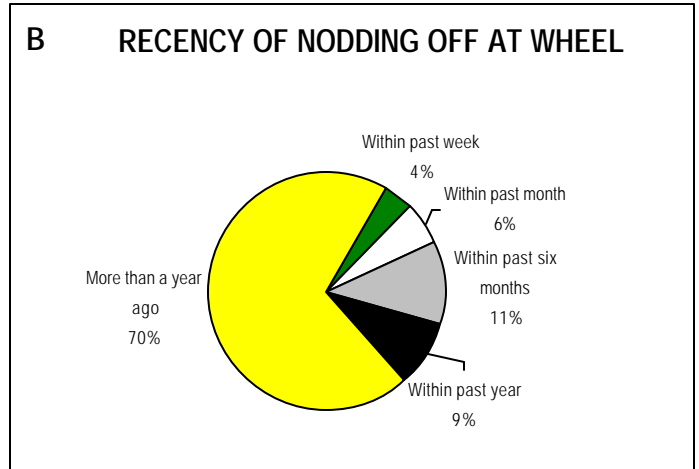
About 22% of male drivers who have nodded off at the wheel report having done so within the past month as compared to 19% of their female counterparts.

While drivers under age 21 are only half as likely to have had an experience of falling asleep while driving, slightly more than four of ten (44%) of those report having this experience within the past six months. [Figure 13-D]

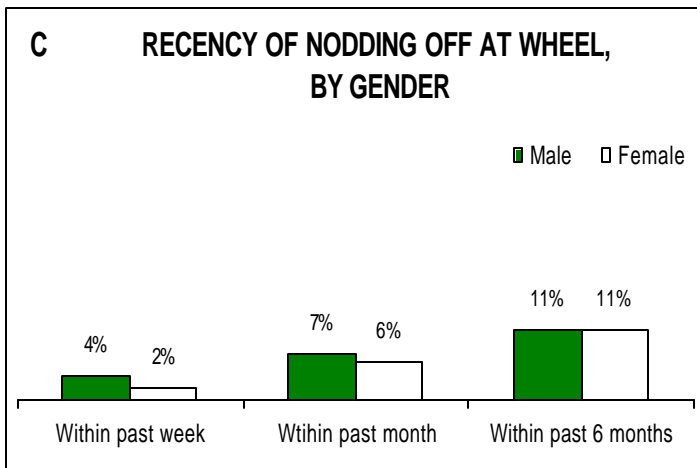
FIGURE 13: EXPERIENCE WITH DROWSY DRIVING



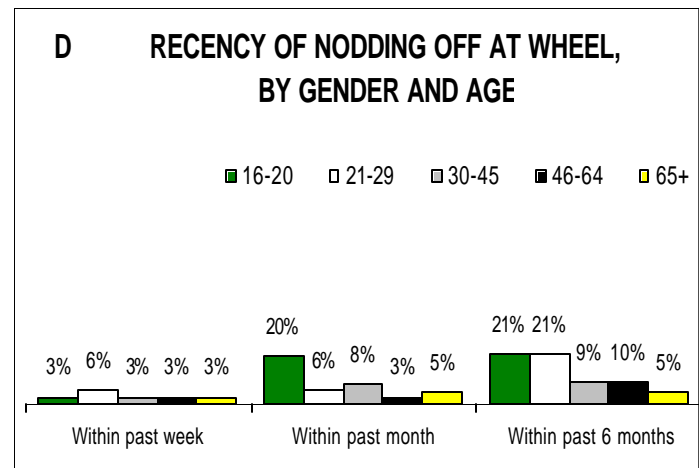
Q59: Have you ever fallen asleep or nodded off even for a moment, while driving?
 [Base: total respondents, speed and unsafe; n=4010]



Q60: Thinking of the most recent time that you fell asleep or nodded off even for a moment while driving, how long ago was that?
 [Base: have fallen asleep while driving]*



Q60: Thinking of the most recent time that you fell asleep or nodded off even for a moment while driving, how long ago was that?
 [Base: have fallen asleep while driving]*



Q60: Thinking of the most recent time that you fell asleep or nodded off even for a moment while driving, how long ago was that?
 [Base: have fallen asleep while driving]*

*Sample bases for figures on this page:

	Total	Male	Female	16-20	21-29	30-45	46-64	65+
Have fallen asleep while driving	1505	906	599	44	214	526	511	203

Characteristics of Most Recent Drowsy Driving Trip

In order to better understand the conditions under which drivers experience drowsy driving, drivers who reported having nodded off while driving within the past six months were asked a series of defining characteristics of their most recent experience.

Time of Day

While some hold the perception that drowsy driving occurs mostly late at night or in the early morning hours, just 28% of drivers reporting a recent drowsy driving experience report this experience occurring between the hours of midnight and 6:00 a.m. More than one-third (35%) of drivers who nodded off while driving within the past six months say their last experience occurred between 6:00 a.m. and 5:00 p.m. An additional 17% report they nodded off between 5:00 p.m. and 9:00 p.m. [Figure 14-A]

Average Length of Time Driving

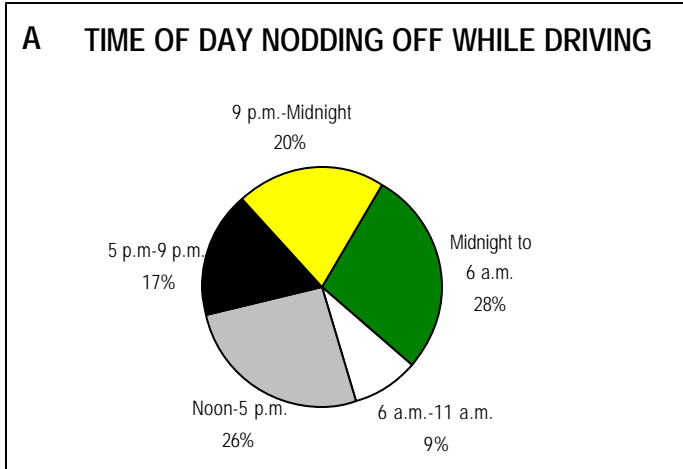
While slightly more than one in five (22%) drivers who recently experienced a drowsy driving episode report having been on the road driving for five or more hours, nearly half (47%) were driving for an hour or less. [Figure 14-B]

On average, these drivers were driving for almost three hours before they nodded off. Males had driven for about an hour longer than females on average (3.2 as compared to 2.2 hours). Drivers age 30 and over became drowsy in a shorter amount of time than younger drivers. [Figure 14-C]

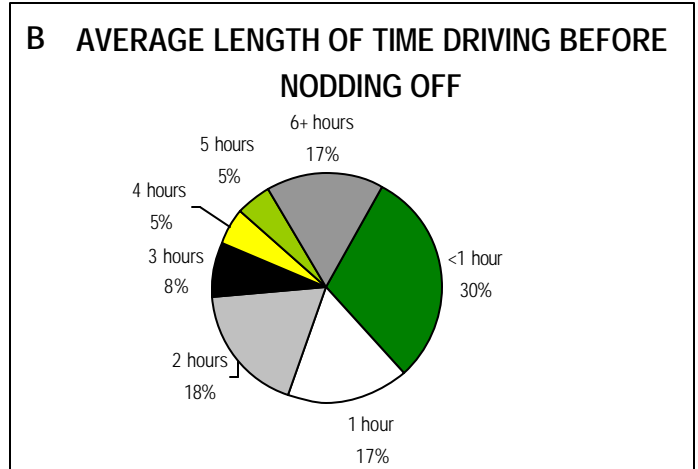
Type of Road Driving

Nearly six in ten (58%) drivers with a recent drowsy driving episode report this occurrence on multi-lane interstate highways, 23% report nodding off while driving on a two-lane road with posted speed limits of 45 MPH or higher, and fewer than one in ten drivers nodded off while driving on non-interstate multi-lane roads (8%) or local city or neighborhood roads (8%). [Figure 14-D] This report of nodding off experience by road type does not match the overall pattern of driving by road type. Just 55% of drivers report frequently driving on multi-lane interstate highways as compared with 83% who frequently drive local city or neighborhood roads. [Figure 2-A]

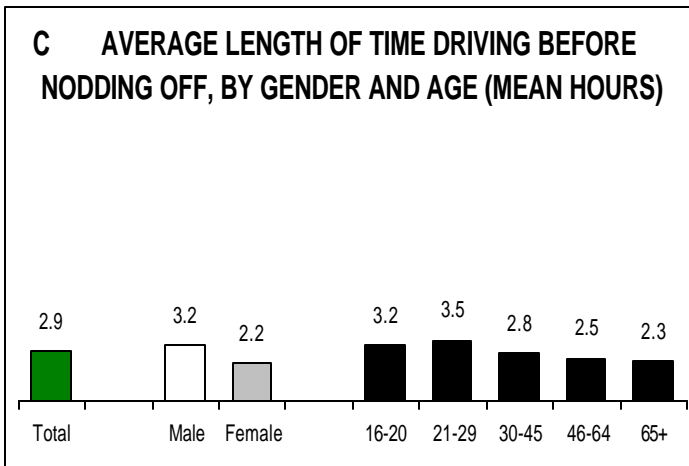
FIGURE 14: CHARACTERISTICS OF MOST RECENT DROWSY DRIVING TRIP



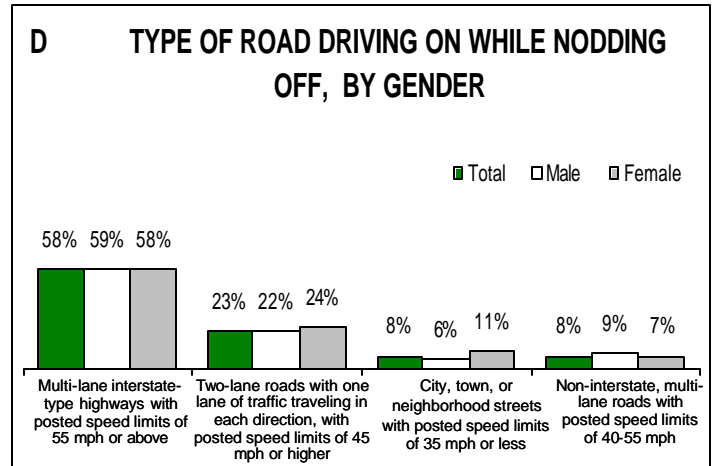
Q62: Thinking of the most recent time that this occurred, what time of day was it?
 [Base: have fallen asleep while driving past six months]*



Q65: How many hours had you been driving (the most recent time you fell asleep or nodded off even for a moment while driving)?
 [Base: have fallen asleep while driving past six months]*



Q65: How many hours had you been driving (the most recent time you fell asleep or nodded off even for a moment while driving)?
 [Base: have fallen asleep while driving past six months]*



Q63: What type of road were you driving on?
 [Base: have fallen asleep while driving past six months]*

*Sample bases for figures on this page:

	Total	Male	Female	16-20	21-29	30-45	46-64	65+
Have fallen asleep while driving past 6 months	311	197	114	24*	71	107	83	26**

**Note: Extremely small sample sizes – interpret with caution

Characteristics of Most Recent Drowsy Driving Trip (continued)

Number of Hours Slept the Night Before

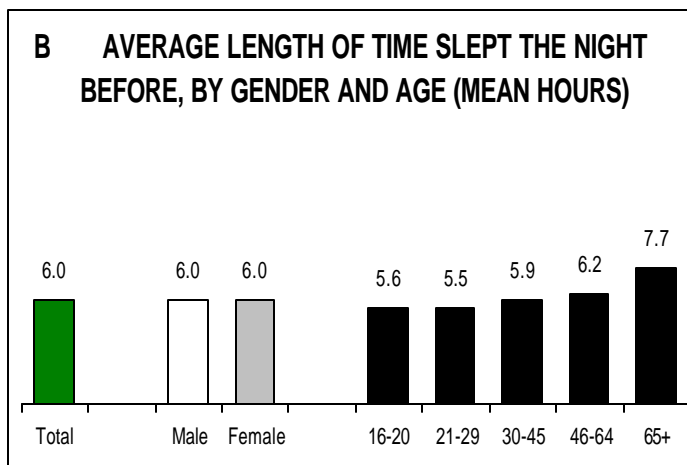
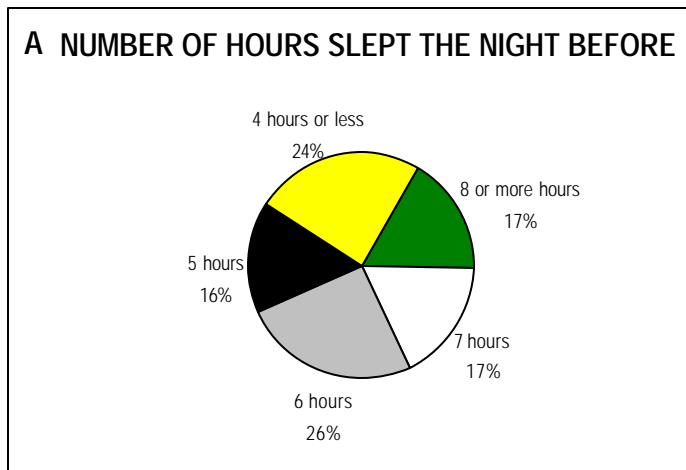
While about one in four (24%) drivers experiencing a recent drowsy driving episode reported having just four or fewer hours of sleep the night before, a full one-third (33%) of the drivers had at least seven hours of sleep. An additional 26% report receiving about six hours of sleep the prior night. [Figure 15-A]

While drowsy drivers on average had received six hours of sleep the night before they nodded off while driving, older drivers report having a drowsy driving episode even after longer sleep times. Drowsy drivers under age 30 reported an average of 5.5 hours of sleep the night before they nodded off at the wheel. The average sleep time of drowsy drivers increases with age, with those age 65 or older reporting a drowsy driving episode after an average of 7.7 hours of sleep the prior night. [Figure 15-B]

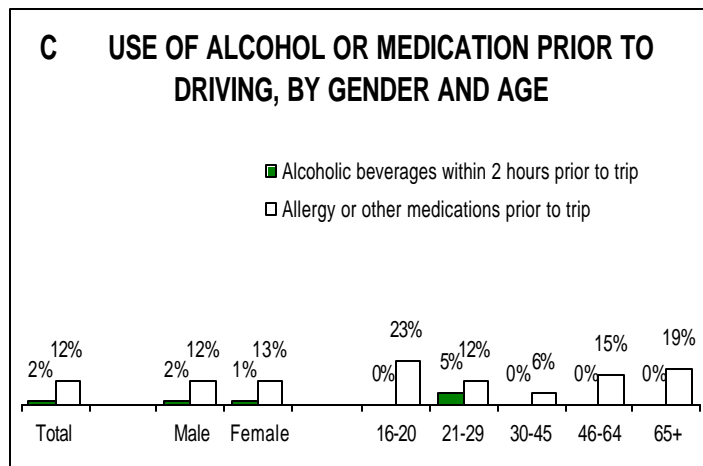
Use of Alcohol or Medications Prior to Driving

Relatively few drivers who nod off at the wheel report having had consumed alcohol (2%) or allergy or other medications (12%) prior to their trip. Alcohol is reported more of a factor among those in their 20s, of whom 5% report having consumed alcohol prior to their trip. Drivers age 30-45 are least likely to report either alcohol (0%) or medication (6%) as a factor in their drowsy driving. [Figure 15-C]

FIGURE 15: CHARACTERISTICS OF MOST RECENT DROWSY DRIVING TRIP (cont.)



Q67: How many hours did you sleep the night before (the most recent time you fell asleep or nodded off even for a moment while driving)?
 [Base: have fallen asleep while driving past six months]*



Q68: Did you have any _____ (the last time you fell asleep or nodded off even for a moment while driving)?
 [Base: have fallen asleep while driving past six months]*

*Sample bases for figures on this page:

	Total	Male	Female	16-20	21-29	30-45	46-64	65+
Have fallen asleep while driving past six months	311	197	114	24*	71	107	83	26**

**Note: Extremely small sample sizes – interpret with caution

Preventative Measures for Drowsy Driving

Actions Taken When Feel Sleepy While Driving

While only about 11% of all drivers say they have nodded off or fallen asleep while driving in the past year, we asked all drivers what actions they take if they feel sleepy while driving. About one-half of all drivers mention multiple actions, most of which serve as a change of status quo that alters the current driving experience. The majority of actions are physical in nature rather than cognitive changes. It is important to note that drivers who *have* nodded off while driving take different actions than those who have never nodded off.

The largest proportion of drivers (43%) say they pull over and take a nap, while an additional 15% say they just pull over or get off the road. Six percent (6%) change drivers. About one in ten (9%) get out of the car to stretch or exercise. About one in four (26%) open a window to get air, while about one in five get a coffee or soda to drink (17%) or get something to eat (3%). One in seven (14%) say they turn on the radio or increase its volume, while an additional 3% say they sing or talk to himself or herself or another person (via cell phone) or a fellow passenger. [Figure 16-A]

By Gender and Age

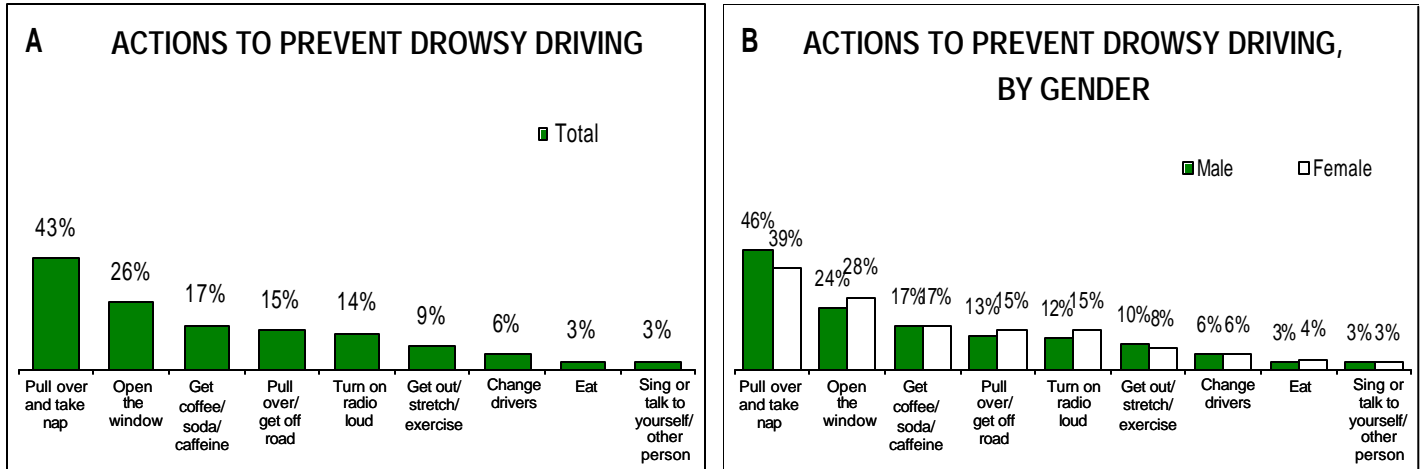
Male drivers are much more likely to say they pull over and take a nap if they feel sleepy while driving (46% as compared to 39% of females), while female drivers are more likely to open a window (28% as compared to 24%). [Figure 16-B]

The prevalence of drivers taking physical actions such as pulling over to nap, getting out of the car to stretch or exercise, and pulling over to get off the road all increase somewhat with age. Just 33% of drivers under age 21 reports that they pull over and nap as compared to 48% of those over age 45. Similarly, just 3% of the young drivers get out to exercise or stretch as compared to 12% of the older drivers. Young drivers are most likely to rely upon turning the radio loud to keep them awake if they feel sleepy. More than one-third (35%) of drivers under 21 rely on this action as compared to just 6% of drivers over age 64. [Figure 16-C]

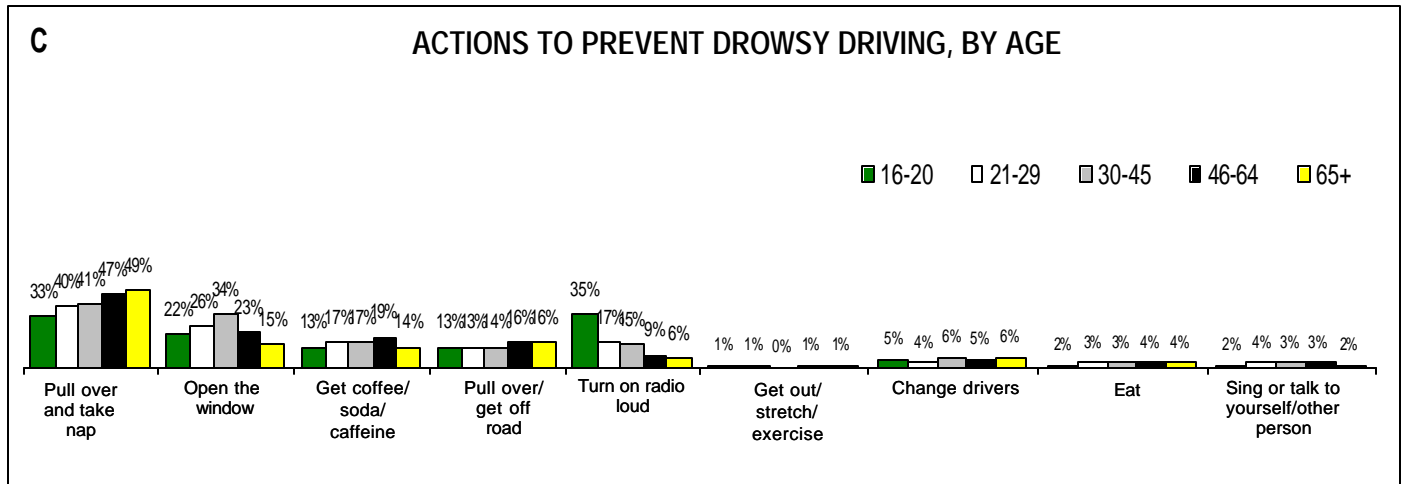
By Drowsy Driving Experience

Drivers who have ever nodded off while driving are more likely than those who have never nodded off at the wheel to open a window (34% as compared to 21% of those who have never nodded off), to get a soda or coffee (20% as compared to 15%), get out of the car and stretch or exercise (12% compared to 7%), and to turn the radio on loud (19% compared to 11%). Those who have never nodded off while driving are more likely to say they pull over and take a nap (46% versus 38%) or pull over to get off of the road (16% compared to 12%). [Figure 16-D]

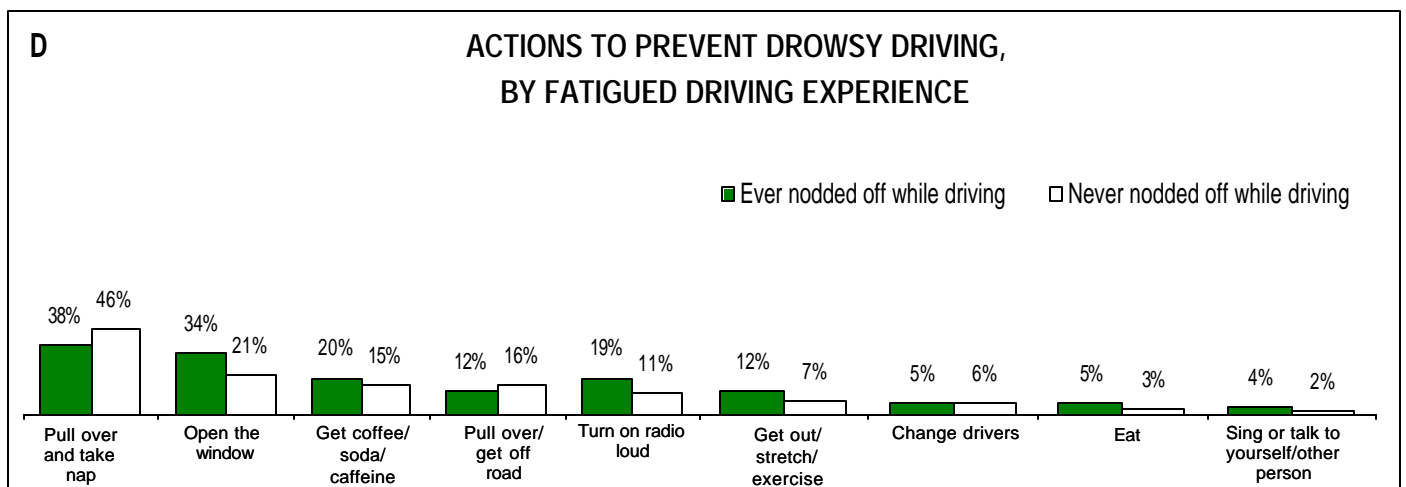
FIGURE 16: PREVENTATIVE MEASURES



Q70: If you feel sleepy while driving, what if anything, do you do to stop it? [Base: total respondents, speed and unsafe; n=4010]



Q70: If you feel sleepy while driving, what if anything, do you do to stop it? [Base: total respondents, speed and unsafe; n=4010]



Q70: If you feel sleepy while driving, what if anything, do you do to stop it? [Base: respondents how nodded off while driving, n=1505; never nodded off, n=2597]

Outcome of Nodding Off on Most Recent Occasion

The overwhelming majority (92%) of drivers who have nodded off while driving within the past six months report that they startled awake. However, sizable proportions of these drivers' experiences had more dangerous outcomes. One of three (33%) wandered into another lane or onto the shoulder, while 19% say they crossed the centerline. In one in ten (10%) cases, the driver ran off the road. While it happened in only about 2% of the most recent drowsy driving episodes, it is estimated that approximately 292,000 drivers were involved in some type of crash within the past six months as a result of nodding off at the wheel. [Figure 17-A]

Involved in Crash as Result of Nodding Off Past Five Years

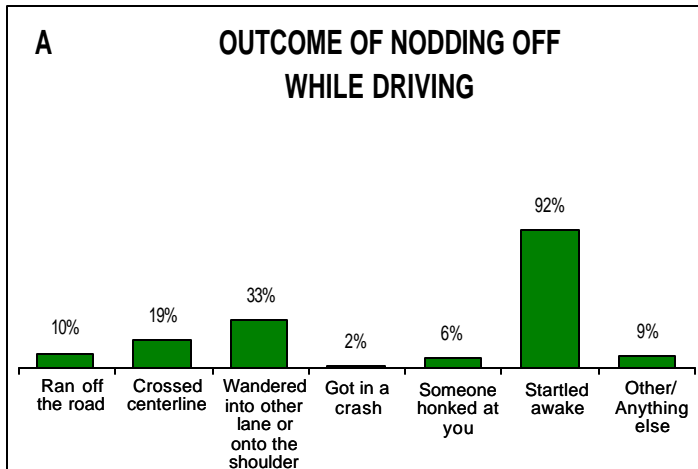
Less than one percent (.7%) of all drivers (1.4% of those who have *ever* nodded off while driving, and 6.4% of those who have done so in the past six months) report they have been involved in a crash within the past five years that they attribute to them nodding off or having to greatly struggle to keep their eyes open. This equates to 2.5% of drivers who have been in any crash in the past five years attributing a crash to drowsy driving.

Males are twice as likely as females to have been in such a crash (1.0% compared to .4%). While the total numbers of drivers involved is still small, drivers under age 30 are about six times more likely (1.8% have) to report involvement in a crash as a result of drowsy driving as are older drivers (.3%). [Figure 17-B]

While the proportion of drivers involved in a crash as a result of nodding off at the wheel is very small, the actual numbers of drivers involved in such crashes over the past five years is sizable. Figure 17-C shows the estimated numbers of drivers by age and gender involved in a drowsy driving-related crash, along with high and low ranges around the estimates.

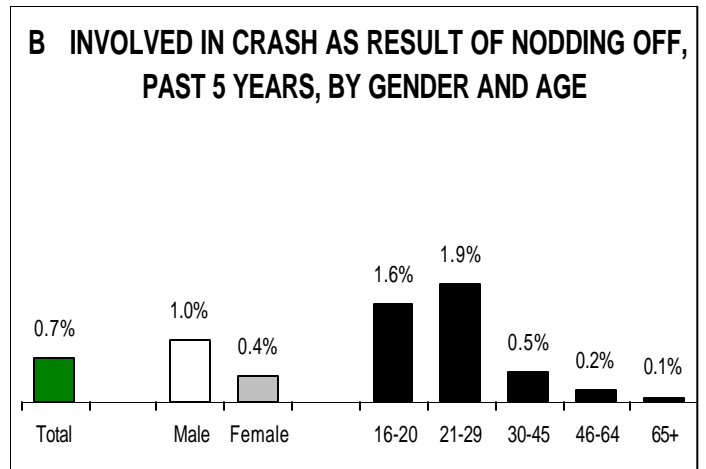
An estimated 1.35 million drivers have been involved in a drowsy driving related crash in the past five years. About seven in ten of these drivers, or 972,000 were males, while 379,000 were females. Young drivers make a disproportionately high number of drowsy driving-related crashes, with about 274,000 drivers under age 21 involved in a drowsy driving-related crash within the past five years. These young drivers make up about 20% of all drivers involved in such a crash, yet these drivers under age 21 make up about 8.5% of the driving population. Similarly, about 44% of all drivers involved in a drowsy driving-related crash are in their 20s (594,000 drivers) yet they make up just 15% of the driving population. Relatively few drivers over age 64 (18,000) have had a drowsy driving-related crash in the past five years.

FIGURE 17: OUTCOME OF DROWSY DRIVING



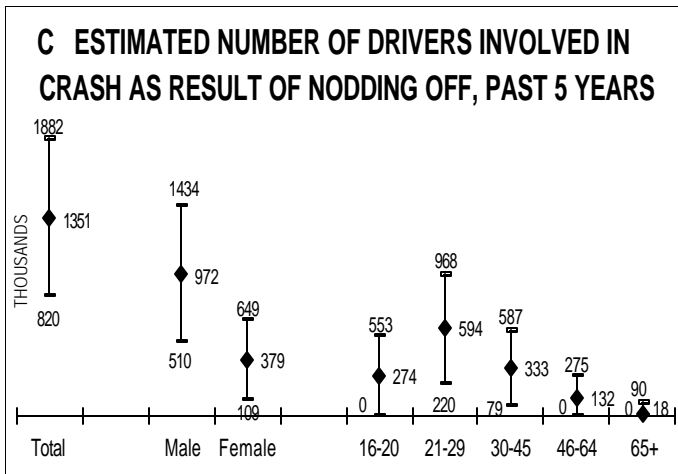
Q61: On this most recent time, which, if any of the following happened when you fell asleep or nodded off even for a moment while driving?

[Base: have fallen asleep while driving past six months; n=311]



Q71/73: In the past five years, have you been involved in a crash while driving a motor vehicle in which there was damage to your vehicle or another vehicle? If yes, were any of these crashes a result of you nodding off, or having to greatly struggle to keep your eyes open?

[Base: total respondents, speed and unsafe; n=4010]



Perceived Threat of Other Drivers Driving While Sleepy or Drowsy

Virtually all drivers believe that other drivers who drive while sleepy or drowsy are a threat to their own personal safety and that of their family. Ninety-five percent (95%) believe this behavior by others to be a major threat, while 5% see it as a minor threat. [Figure 18-A]

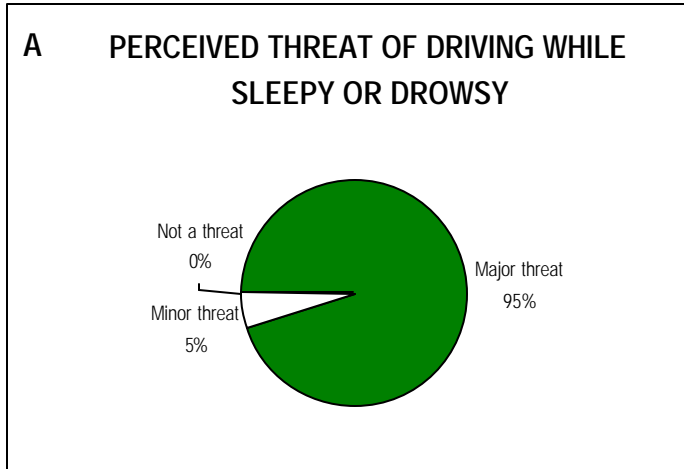
By Gender

There is little substantive difference in the perception of the threat of other drivers who drive while drowsy or sleepy between male and female drivers. Male drivers are slightly more likely to view this behavior as a minor (6%), rather than a major (93%) threat to their and their family's safety as compared to female drivers (3% and 96% respectively). However, all drivers see the behavior as a personal threat to their safety. [Figure 18-B]

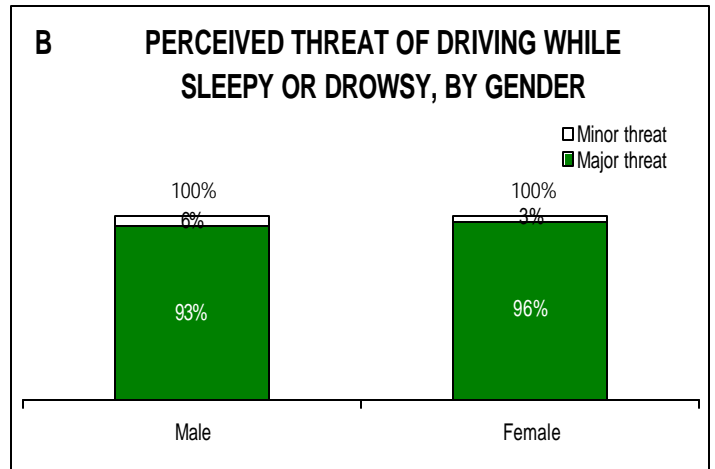
By Age

There is also little difference in the perceived threat of others' driving while drowsy or sleepy by age, with the exception that drivers in their 20s are more likely to see this behavior as a minor (8%) rather than a major threat (91%) to their and their family's safety. [Figure 18-C]

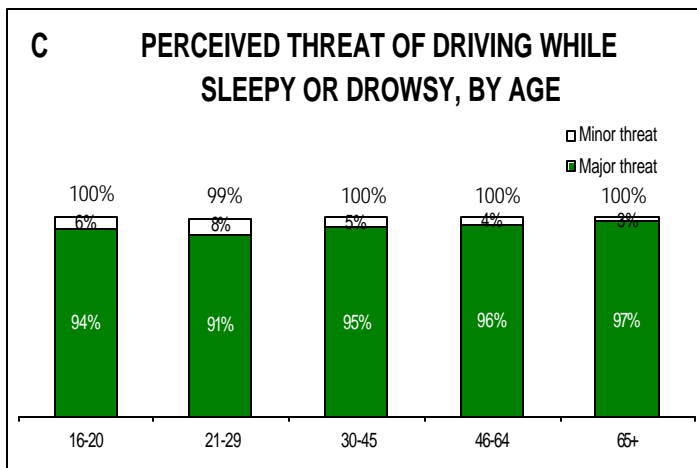
FIGURE 18: PERCEIVED THREAT OF DRIVING WHILE DROWSY



Q86a: In your opinion, how much of a threat is it to the personal safety of you and your family if other drivers do the following?
 [Base: Total respondents, speed and unsafe; n=4010]



Q86a: In your opinion, how much of a threat is it to the personal safety of you and your family if other drivers do the following?
 [Base: total respondents, speed and unsafe; n=4010]



Q86a: In your opinion, how much of a threat is it to the personal safety of you and your family if other drivers do the following?
 [Base: total respondents, speed and unsafe; n=4010]