

2019 Traffic Safety Culture Index

June 2020

Title

2019 Traffic Safety Culture Index

Authors

AAA Foundation for Traffic Safety

Foreword

The AAA Foundation for Traffic Safety has consistently demonstrated its commitment to improve traffic safety through work such as the one presented in this report, the 12th annual *Traffic Safety Culture Index*. Results presented in this report are based on a nationally representative survey conducted in 2019 of more than 2,700 U.S. motorists.

Several content and format changes were made to enhance this version of *Traffic Safety Culture Index*. This report should be a useful reference for researchers, practitioners and advocates of traffic safety who may utilize the results presented to promote awareness of traffic safety challenges and influence changes.

C. Y. David Yang, Ph.D.

Executive Director
AAA Foundation for Traffic Safety

About the Sponsor

AAA Foundation for Traffic Safety
607 14th Street, NW, Suite 201
Washington, D.C. 20005
202-638-5944
www.aaafoundation.org

Founded in 1947, the AAA Foundation for Traffic Safety in Washington, D.C. is a nonprofit, publicly supported charitable research and education organization dedicated to saving lives by preventing traffic crashes and reducing injuries when crashes occur. Funding for this report was provided by voluntary contributions from AAA/CAA and their affiliated motor clubs, individual members, AAA-affiliated insurance companies and other organizations or sources.

This publication is distributed by the AAA Foundation for Traffic Safety at no charge, as a public service. It may not be resold or used for commercial purposes without the explicit permission of the Foundation. It may, however, be copied in whole or in part and distributed for free via any medium, provided the Foundation is given appropriate credit as the source of the material. The AAA Foundation for Traffic Safety assumes no liability for the use or misuse of any information, opinions, findings, conclusions or recommendations contained in this report.

If trade or manufacturers' names are mentioned, it is only because they are considered essential to the object of this report and their mention should not be construed as an endorsement. The AAA Foundation for Traffic Safety does not endorse products or manufacturers.

Table of Contents

Foreword.....	2
About the Sponsor	2
Introduction	4
Organization of Report	4
Summary of Major Findings.....	6
Data Collection Methodology and Limitations	8
Survey Instrument.....	8
Sampling.....	8
Weighting.....	9
Limitations	9
Results.....	11
Overall Results	11
Perceived Danger of Driving Behaviors.....	11
Perceived Risk of Apprehension	12
Social Approval.....	13
Driving Behaviors in Past 30 Days	14
Support for Safety Countermeasures	15
Comparisons Between Attitudes/Perceptions and Behaviors.....	16
Drivers’ Behaviors and Crash Risk.....	20
Discussion.....	23
References	24
Appendix A: Drivers’ attitudes, perceptions and behaviors in relation to age and sex.....	25
Appendix B: Discordances between drivers’ attitudes/perceptions and behaviors	31

Introduction

During the first nine months of 2019, motor vehicle traffic crashes killed an estimated 26,730 people on U.S. roadways (National Center for Statistics and Analysis, 2019). This is a 2.2% decrease from the 27,335 fatalities reported during the same period in 2018. Adjusted for vehicle miles traveled (VMT) (Federal Highway Administration, 2019), the fatality rate for the first 9 months of 2019 decreased to 1.10 deaths per 100 million VMT, which is lower than 1.13 deaths per 100 million VMT during the same period of 2018. Nevertheless, drivers continue to engage in dangerous behaviors, such as driving distracted by cell phones, speeding, and driving under the influence of alcohol and/or other drugs.

Driving is an important part of many Americans' lives. There are accepted and agreed ways of behaving on the roadway. Traffic rules and regulations are created with the assumption that most drivers will drive in a safe and reasonable manner based on the road conditions. For the last decade, the AAA Foundation for Traffic Safety has been committed to deepening our understanding of America's traffic safety culture. The first *Traffic Safety Culture Index*, a nationally representative survey, was conducted in 2008. Since then, this annual effort has continued to identify and assess key indicators of American drivers' values and pursuit of traffic safety. By having updated the questionnaire in 2018, the 2019 *Traffic Safety Culture Index* includes various new measures including drivers' perceived danger, risk of apprehension, and perceived social approval for risky driving, as well as their support for laws and policies designed to curtail these behaviors and their own self-reported engagement in these behaviors. This document details the data collection methodology and summarizes the major national-level results of the 12th annual *Traffic Safety Culture Index* (TSCI).

The 2019 *Traffic Safety Culture Index* reveals that people in the United States value travelling safely and seek strengthening laws that ensure safer roads. American drivers perceive distracted, drowsy, aggressive, and impaired driving as dangerous. This year's survey, however, continues to highlight the discordance between drivers' attitudes and their reported behaviors. For example, many drivers noted the serious dangers associated with holding and talking on cellphones while driving, however, they admitted to having done so in the past month. Additionally, this report presents how drivers' behaviors could differ in relation to their self-reported crash involvement.

Organization of Report

The 2019 TSCI report underwent significant changes. By expanding the scope, this report now includes results from in-depth analyses pertaining to discordance between drivers' attitudes and behaviors, and associations between their behaviors and crash involvement. The following summarizes the organization of this report and content of each section.

- **Introduction**
- **Data Collection Methodology and Limitations:** data collection methodology, such as sampling and weighting, as well as limitations.
- **Results:**
 - **Overall Results:** results regarding perceived danger, perceived risk of apprehension, social approval, self-reporting of behaviors, and support of safety laws related to various risky driving behaviors.

- **Comparisons Between Attitudes/Perceptions and Behaviors:** results comparing drivers' attitudes with their self-reported engagements in certain driving behaviors.
 - **Drivers' Behaviors and Crash Risk:** results from drivers' self-reported engagement in certain driving behaviors and associations with their self-reported crash involvement.
- **Discussion**
- **Appendix A:** overall results in a table format, considering demographic factors such as age and sex.
- **Appendix B:** results from the section *Comparisons Between Attitudes/Perceptions and Behaviors* in a figure format.

Summary of Major Findings

Distracted Driving

- A majority of drivers view reading (94.3%), typing (96.2%), and talking (79.7%) on a hand-held cellphone while driving to be very or extremely dangerous. In contrast, only 22.5% perceive the use of hands-free technology of their phone, such as Bluetooth or CarPlay, while driving to be very or extremely dangerous.
- More respondents believe drivers risk being caught by the police for reading (43.7%) or typing (42.7%) a text/email on a hand-held cellphone than they do for talking on a hand-held cellphone (40.6%).
- About 87% believed that people who were important to them disapproved of talking on a hand-held cellphone while driving.
- A majority of drivers support laws against distracted driving, with over 76% of drivers supporting a law against holding and talking on a cellphone and about 86% of drivers supporting a law against reading, typing, or sending a text or email while driving.
- Nevertheless, 43.2% drivers report having driven while talking on a hand-held cellphone at least once in past 30 days. Fewer respondents report engaging in distracted driving by reading (38.6%) and typing a text/email (29.3%) on a hand-held cellphone while driving.
- Drivers who have been involved in a crash(es) in the past two years are significantly more likely to engage in any type of self-reported distracted driving behavior.

Aggressive Driving Behaviors

- More than half of drivers (55.1%) indicate that speeding on a freeway is dangerous, while about 64% of drivers perceived speeding on a residential street as dangerous.
- Over 65% of respondents felt that the police would catch a driver for driving 15 mph over the speed limit on a freeway, yet 48.2% reported having done so in the past 30 days.
- Over 86% of drivers report speeding through a red light to be very or extremely dangerous, and 52% of drivers felt that the police would catch a driver for running a red light.
- Drivers who have been involved in a crash(es) in past two years are significantly more likely to engage in any type of aggressive driving behavior. For example, 53% of drivers who have been involved in a crash(es) admitted to having driven 10 mph over the speed limit on a residential street, while only 40% of drivers who have not been involved in any crash in the past two years admitted to having done so.

Drowsy Driving

- About 96% of drivers identify drowsy driving as very or extremely dangerous. However, only 29% thought drowsy drivers risked being caught by the police.
- Over 97% of drivers socially disapprove of drowsy driving.
- Despite high rates of perceived danger and social disapproval regarding drowsy driving, about 24% of drivers admit to having driven while being so tired that they had had a hard time keeping their eyes open, at least once in past 30 days.

Impaired Driving

- Most drivers (94%) perceive driving after drinking as very or extremely dangerous. However, almost 10% admitted to having done so in the past 30 days.

- Nearly 70% of respondents consider driving shortly (within an hour) after using marijuana to be very or extremely dangerous. However, 91% of drivers socially disapprove of driving shortly after using marijuana.
- Most drivers (88.3%) indicate driving after using potentially impairing prescription drugs as very or extremely dangerous. About 47% of drivers consider that drivers driving after using potentially impairing prescription drugs would be likely to be caught by the police.
- A majority of drivers support laws against impaired driving. Over 84% of respondents support for laws making it illegal to drive with a certain amount of marijuana and 75.4% support laws making it illegal to drive with any drug (not legally prescribed) in your system.

Data Collection Methodology and Limitations

Survey Instrument

In 2018, significant changes were made to the TSCI survey instrument. The detailed list of changes is available in the 2018 TSCI report (AAA Foundation for Traffic Safety, 2019). Few changes were made in this year's survey instrument:

- Given the increasing availability of various hands-free technologies while driving (e.g., Bluetooth, Apple CarPlay, and Android Auto), the 2019 survey included an item related to this topic to understand the public perceptions and behaviors on the use of these technologies.
- The question about personal approval of engaging in certain driving behaviors was removed to ensure the survey stays within a reasonable length for quality responses.

The survey was administered in English and Spanish between Sept. 6 and Oct. 8, 2019.

Sampling

This study recruited a sample of 3,511 respondents ages 16 and older from KnowledgePanel[®], an online probability-based research panel maintained by Ipsos. The panel was designed to be a representative sample of households in the United States and recruited using standard probability-based random digit dial (RDD) and address-based sampling method.

The sampling frame includes all U.S. households reachable by telephone or regular mail regardless of telephone or Internet access or use. If a sampled household lacked Internet access or an Internet-capable computer, they were provided internet access and a netbook computer at no cost to the household. Individuals not sampled could not volunteer to join the panel. Statistics were weighted to reflect the entire population from which the sample was drawn in response to each individual respondent's probability of selection into the panel and the probability of selection for the survey.

For respondents 19 years and older, age eligible adults across the nine census geographical divisions were sampled to ensure a minimum of 200 completed interviews per division. The questionnaire was sent to 3,981 panelists ages 19 years or older, with 2,570 qualified respondents completing the questionnaire. Selecting separate samples for each census division ensured a sufficient number of interviews for analysis by division.

For 16 to 18 year-old samples, random households with at least one 15 to 18 year-old present were sampled from KnowledgePanel[®]. The survey was sent to parents who had at least one age eligible teen in their household. If there was more than one teen in this age range, one of the eligible teens was randomly selected. Parents were asked to provide consent for the selected teen and ask their teen to complete the remainder of the survey. Invitations were sent to 2,649 parents of teens ages 16-18, and 941 qualified respondents completed the questionnaire.

Weighting

The data were weighted to account for several factors: (1) probability of selection for recruitment into KnowledgePanel®, (2) probability of selection for the survey, and (3) non-response at both stages. To align the characteristics of respondents to those of the population of residents aged 16 years or older, a sample was drawn with respect to gender, age, race/Hispanic ethnicity, education, census region, metropolitan/non-metro status, number of people aged 16 and older in the household, and household income from the U.S. Census Bureau’s Current Population Survey (2019). All analyses included in this study have been conducted using weighted data.

Limitations

This survey aims to estimate the prevalence of specific attitudes and behaviors among all drivers in the United States. However, the results of this survey may differ from true population values due to sampling error and possible sources of bias.

In this survey, the sampling error reflects the extent to which estimates from a sample (e.g., this sample of 3,511 drivers) might be expected to differ from the results that would be obtained if the same data were collected from every member of the population (i.e., all drivers in the United States). The margin of error for this survey is at the 95% confidence level, meaning that the range of estimates is expected to include the actual population value 95 times out of 100 when estimated from a sample of the same size and with the same design. The error margin varies in relation to the number of responses for a survey question and the distribution of responses. A table below shows the approximate margin of error for illustrative examples of statistics derived from the entire sample; the margin of error is larger for items asked of fewer respondents.

Approximate margin of error (in percentage points) for selected percentages, at the 95% confidence level

Percentages near	Approx. margin of error
<i>90 or 10</i>	± 1.4
<i>80 or 20</i>	± 1.8
<i>70 or 30</i>	± 2.1
<i>60 or 40</i>	± 2.2
<i>50</i>	± 2.3

The margin of error is larger in this survey than for a simple random sample of the same size because of the design of the panel and the stratification by census division and oversampling of respondents aged 16-18 years.

The margin of error reflects only the statistical variability associated with using the survey sample to draw inferences about the entire population. It does not reflect errors attributable to bias. Potential sources of bias in surveys include systematic non-coverage of certain segments of the population (e.g., people who cannot read in English or Spanish), non-response (i.e., either eligible respondents who

cannot be contacted or refuse to participate), differences in respondents' understanding of survey questions or response options, or deliberate misreporting of information (e.g., under-reporting of behaviors that may be perceived as undesirable).

Results

This report presents results of the 2019 TSCI in three sub-sections. The first sub-section includes the “overall” results regarding perceived danger, perceived risk of apprehension, social approval, self-reporting of behaviors, and support of safety laws related to various risky driving behaviors. The second sub-section, a newly added section, highlights discordances between drivers’ attitudes/perceptions and their behaviors. The last sub-section, also newly added, compares behaviors of drivers who have self-reported being involved in a crash(es) in past two years with those who have not been involved in any crashes.

Results are described in the context of three focus areas: 1) distracted driving, primarily with cellphone use, including talking, texting, and emailing; 2) aggressive driving, including speeding and running red lights; and 3) drowsy and impaired driving (by alcohol or other drugs).

Overall Results

Perceived Danger of Driving Behaviors

Respondents were asked how they felt about the danger levels of certain driving behaviors. Table 1 shows that across each driving behavior, a majority of respondents viewed many of these behaviors as extremely or very dangerous. For example, over 96% of respondents felt that texting or emailing on a cell phone while driving was extremely or very dangerous.

When examining other distracted driving behaviors, close to 80% of respondents viewed holding and talking on cell phones as extremely or very dangerous, in comparison to 94% of drivers who viewed reading on cell phone to the same danger level.

A new item was included in the 2019 survey asking how respondents felt about the use of technology that allowed hands-free use of their phone, such as Bluetooth or CarPlay, while driving. A majority of respondents (63.6%) perceived it to be moderately to slightly dangerous, whereas only close to 23% perceived it to be extremely or very dangerous.

In regards to aggressive driving, there were variations in the results. While nearly 92% indicated that switching lanes or driving closely behind another car was extremely or very dangerous, only 55% perceived speeding 15 mph over the speed limit on freeways as extremely or very dangerous. Additionally, a majority of respondents perceived speeding 10 miles over the speed limit on residential streets (63.5%) and red light running (86.0%) as extremely or very dangerous.

In terms of impaired driving, 94% perceived drinking enough alcohol that they may be over the legal limit as extremely or very dangerous. In contrast, approximately 69% of respondents viewed driving shortly (within an hour) after using marijuana as extremely and very dangerous.

Table 1. How dangerous do you feel the following driving behaviors are?

Driving Behaviors		Extremely dangerous	Very dangerous	Moderately dangerous	Slightly dangerous	Not dangerous at all
Distracted	<i>Drivers holding and talking on cell phones</i>	54.7	25.0	15.6	4.1	0.6
	<i>Drivers reading on cell phones</i>	72.0	22.3	5.2	0.3	0.2
	<i>Drivers texting or emailing on cell phones</i>	75.8	20.4	3.1	0.4	0.3
	<i>Driving using technology that allows hands-free use of their phone (Bluetooth, CarPlay, Android Auto etc.)</i>	13.0	9.5	31.7	31.9	14.1
Aggressive	<i>Drivers speeding 15 mph over the speed limit on freeways</i>	28.7	26.4	29.2	12.6	3.1
	<i>Drivers speeding 10 mph over the speed limit on residential streets (neighborhood)</i>	32.0	31.6	26.3	8.4	1.7
	<i>Driving through a light that had just turned red when they could have stopped safely</i>	56.0	30.4	10.6	2.8	0.4
	<i>Driving aggressively (switching lanes quickly, driving very closely behind another car)</i>	64.4	27.4	7.0	0.9	0.4
Drowsy & Impaired	<i>Driving when they were so tired that they had a hard time keeping your eyes open</i>	75.6	20.5	3.0	0.6	0.5
	<i>Driving after drinking enough alcohol that they may be over the legal limit</i>	76.4	17.6	5.0	0.7	0.4
	<i>Driving shortly (within an hour) after using marijuana</i>	48.9	19.7	17.5	10.4	3.4
	<i>Driving after using potentially impairing prescription drugs</i>	63.8	24.5	8.1	3.1	0.5

Perceived Risk of Apprehension

Survey respondents were asked to report their perceptions on how likely a driver was to be caught by police for certain driving behaviors. Table 2 shows that for each driving behavior, the results varied. For each item under distracted driving, less than half of respondents perceived that a driver would be somewhat or very likely caught by the police. For example, less than 41% believed that drivers would somewhat or very likely be caught by the police for holding and talking on a cell phone while driving.

In contrast, slightly more than half of respondents perceived that drivers would somewhat or very likely be caught by the police for engaging in aggressive driving behaviors. For instance, about 65% of respondents perceived that the police were somewhat or very likely to catch a driver exceeding 15 mph over the speed limit on the freeway and 52% believed a driver going through a red light would somewhat or very likely be caught by the police.

The perceptions of being caught by the police also varied by source of impairment. For example, almost 68% of respondents perceived people driving after drinking enough alcohol to be over the legal limit as somewhat or very likely to be caught by the police. In contrast, only about 27% believed people driving within an hour after using marijuana to be somewhat or very likely to be caught by the police and only 29% of respondents perceived drivers engaging in drowsy driving as somewhat or very likely to be caught by the police.

Table 2. How likely is a driver to be caught by the police for the following behaviors?

Driving Behaviors		Very likely	Somewhat likely	Somewhat unlikely	Very unlikely
Distracted	<i>Driving while holding and talking on a cell phone</i>	12.5	28.1	34.5	24.9
	<i>Driving while reading a text or an email on a cell phone</i>	11.7	32.0	36.0	20.1
	<i>Driving while typing or sending a text message or email on a cell phone</i>	12.9	29.8	34.4	22.9
Aggressive	<i>Driving 15 mph over the speed limit on a freeway</i>	21.5	43.6	25.4	9.6
	<i>Driving 10 mph over the speed limit on a residential street</i>	16.5	34.2	30.8	18.3
	<i>Driving through a red light</i>	17.6	34.4	31.4	16.7
	<i>Driving aggressively</i>	17.8	32.6	33.9	15.7
Drowsy & Impaired	<i>Driving while being so tired that they had a hard time keeping their eyes open</i>	7.0	22.0	44.2	27.0
	<i>Driving after drinking enough alcohol to be over the legal limit</i>	23.3	44.6	21.6	10.2
	<i>Driving within an hour after using marijuana</i>	8.3	18.9	41.2	31.6
	<i>Driving while using potentially impairing prescription drugs</i>	12.3	34.3	35.7	17.5
Other	<i>Driving without wearing a seatbelt</i>	13.4	33.1	32.9	20.7

Social Approval

Table 3 presents survey results for the following question, “How much do you believe people who are important to you would approve of each of the following behavior?” Across each driving behavior category, a majority of respondents perceived that people who were important to them would completely or somewhat disapprove of risky and inappropriate driving.

For example, only approximately 6% of respondents believed that people who were important to them would completely or somewhat approve of driving while manually typing or sending a text message or email on a cell phone. While approval for most behaviors were generally consistent across the different categories, some behaviors within categories were reported to have higher approval ratings than others were. For example, within the aggressive driving category, nearly 20% of drivers reported that people who were important to them would completely or somewhat approve of driving 15 mph over the speed limit on a freeway. In contrast, only about 6% felt that people who were important to them would completely or somewhat approve of driving through a red light.

In terms of impaired driving, only about 3% of drivers perceived that those who were important to them would completely or somewhat approve of riding in a car driven by someone who has had too much alcohol, but 9% felt that those important to them would approve of driving within an hour after using marijuana.

Table 3. How much do you believe people who are important to you would approve of each of the following behaviors?

Driving Behaviors		Completely approve	Somewhat approve	Somewhat disapprove	Completely disapprove
Distracted	<i>Driving while holding and talking on a cell phone</i>	2.9	10.4	40.8	45.9
	<i>Driving while reading a text or an email on a cell phone</i>	2.3	4.3	30.0	63.2
	<i>Driving while typing or sending a text message or email on a cell phone</i>	1.2	4.2	27.3	67.3
Aggressive	<i>Driving 15 mph over the speed limit on a freeway</i>	2.8	16.5	41.9	38.8
	<i>Driving 10 mph over the speed limit on a residential street</i>	3.2	9.3	37.8	49.5
	<i>Driving through a red light</i>	1.2	5.0	31.4	62.6
	<i>Driving aggressively</i>	1.7	4.6	27.4	66.3
Drowsy & Impaired	<i>Driving while being so tired that they had a hard time keeping their eyes open</i>	1.0	1.7	25.1	72.3
	<i>Driving after drinking enough alcohol to be over the legal limit</i>	2.5	2.9	11.5	83.0
	<i>Riding in a car driven by someone who has had too much alcohol</i>	2.1	1.2	10.3	86.4
	<i>Driving within an hour after using marijuana</i>	1.9	7.1	14.4	76.6
	<i>Driving while using potentially impairing prescription drugs</i>	2.4	2.4	17.1	78.0
Other	<i>Driving without wearing a seatbelt</i>	2.5	2	21.8	73.8

Driving Behaviors in Past 30 Days

Drivers were asked to report how often they engaged in risky driving behaviors in the past 30 days. Despite perceived dangers, risk of apprehension, and social disapproval, a considerable proportion of drivers still acknowledged engaging in these behaviors. Table 4 shows how often drivers engaged in different behaviors in past 30 days prior to the survey.

Almost 64% reported having talked on a cell phone using hands-free technology at least once. However, the prevalence of engaging in distracted driving while using a cell phone is less for holding and talking (43.2%), reading (38.6%), and manually typing or sending a message/email (29.3%) on a cell phone.

For aggressive driving behaviors, nearly half of drivers admitted to driving 15 mph over the speed limit on a freeway, while only about 27% admitted to switching lanes quickly or driving very close behind another car at least once in past 30 days.

The self-reported prevalence of engaging in impaired driving varied by the source of impairment. Table 4 shows driving after having enough alcohol to be over the legal limit (approximately 10%) was more common than driving after using marijuana (6.5%) and after using impairing prescription drugs (5.9%). Lastly, approximately 10% of respondents admitted to having ridden in a car driven by someone who had too much alcohol at least once in the 30 days prior to the survey.

Table 4. In the past 30 days, how often have you...?

Driving Behaviors		Regularly	Fairly often	A few times	Just once	Never
Distracted	<i>Driven while holding and talking on a cell phone</i>	3.3	5.6	24.6	9.7	56.6
	<i>Driven while reading a text or an email on a cell phone</i>	1.9	3.9	22.6	10.2	61.3
	<i>Driven while manually typing or sending a text message or an email</i>	1.6	2.9	15.2	9.6	70.4
	<i>Talked on a cell phone using hands-free technology (Bluetooth, CarPlay, etc.)</i>	17.1	14.9	26.2	5.4	36.3
	<i>Sent a text or email using hands-free technology (Bluetooth, CarPlay, etc.)</i>	3.3	4.2	13.0	5.5	73.8
Aggressive	<i>Driven 15 mph over the speed limit on a freeway</i>	4.8	9.1	25.1	9.2	51.7
	<i>Driven 10 mph over the speed limit on a residential street</i>	3.0	4.5	25.5	8.5	58.5
	<i>Driven through a light that had just turned red when you could have stopped safely</i>	0.8	0.9	13.4	16.0	68.9
	<i>Driven aggressively by switching lanes quickly and/or very close behind another car</i>	1.3	2.0	13.2	10.0	73.7
Drowsy & Impaired	<i>Driven when you were so tired that you had a hard time keeping your eyes open</i>	0.6	0.8	10.0	12.2	76.3
	<i>Driven when you had enough alcohol that you thought you might be over the legal limit</i>	0.3	0.3	4.4	4.8	90.1
	<i>Ridden in a car driven by someone who has had too much alcohol</i>	0.5	0.3	5.1	4.4	89.6
	<i>Driven shortly (within an hour) after using marijuana</i>	1.2	1.0	3.0	1.3	93.6
	<i>Driven when using potentially impairing prescription drugs</i>	0.5	0.6	3.0	1.8	94.1
Other	<i>Driven without wearing a seatbelt</i>	2.3	1.9	7.3	3.7	84.7

Support for Safety Countermeasures

Respondents were asked how strongly they supported or opposed certain traffic safety countermeasures. In general, most respondents expressed support for traffic safety laws listed in Table 5. For example, 76% of respondents supported a law against holding and talking on a cell phone while driving and 86% indicated support for a law against holding a cell phone to read, type, or send a text message or email while driving. However, less than half of respondents (42.9%) supported a law against using cameras to ticket drivers who run red lights on residential streets.

Approximately 80% of respondents indicated support for ignition interlocks for all DWI (driving while intoxicated) offenders and about 73% supported laws requiring all new cars to have built-in technology that will not let the car start if the driver’s alcohol level is over the legal limit. However, only slightly more than half of drivers (52.4%) support laws lowering the legal limit for a driver’s blood alcohol concentration (a measure of the amount of alcohol in a person’s blood) from 0.08 to 0.05. Lastly, over 84% of respondents indicated support for laws making it illegal to drive with more than a certain amount of marijuana in the body compared with about 75% who support having a law making it illegal to drive with any drug not legally prescribed (i.e., zero tolerance drug laws).

Table 5. How strongly do you support or oppose...?

Driving Behaviors		Support strongly (%)	Support somewhat (%)	Oppose somewhat (%)	Oppose strongly (%)
Distracted	<i>Having a law against holding and talking on a cell phone while driving, for all drivers regardless of their age</i>	49.4	26.7	15.7	7.3
	<i>Having a law against holding a cell phone to read, type, or send a text message/email while driving</i>	58.3	27.8	8.4	4.8
	<i>Having a law against using hands-free technology to read, type or send a text message/email while driving</i>	22.8	21.2	31	24.4
Aggressive	<i>Using cameras to automatically ticket drivers who run red lights on residential streets</i>	17.8	25.1	27.9	29
Impaired	<i>Having a law requiring all drivers who have been convicted of DWI to use a device that won't let their car start if they have been drinking, even if it's their first time being convicted of DWI</i>	53.2	27.1	12.6	6.7
	<i>Requiring all new cars to have a built-in technology that won't let the car start if the driver's alcohol level is over the legal limit</i>	44.1	28.5	13.4	13.8
	<i>Having a law lowering the legal limit for a driver's blood alcohol concentration from 0.08 to 0.05</i>	26.2	26.2	24.5	22.1
	<i>Having a law making it illegal to drive with more than a certain amount of marijuana in your system</i>	58.3	26	9.1	6.1
	<i>Having a law making it illegal to drive with any drug (not legally prescribed) in your system</i>	46.3	29.1	16	8.5
Other	<i>Having a law requiring all new drivers under the age of 21 years to go through training, practice time, and a restriction period</i>	44.4	35.2	15.2	4.7

Comparisons Between Attitudes/Perceptions and Behaviors

This section presents the prevalence of discordance between drivers’ attitudes/perceptions and their behaviors. For example, in general, more than 90% of drivers viewed driving while reading a text or an email on a cell phone as very or extremely dangerous, but nearly 40% of drivers admitted to having done so at least once in past 30 days prior to the survey as shown in Table 6. On the other hand, only about half of drivers (55.1%) perceived driving 15 mph over the speed limit on a freeway to be very or extremely dangerous. Drivers are more likely to admit to having done so at least once in past 30 days (48.2%), compared with other behaviors under the aggressive driving category.

In regard to impaired driving, nearly all drivers (96.1%) viewed driving when they were so tired that they had a hard time keeping their eyes open as very or extremely dangerous. Almost a quarter of drivers (23.6%), however, admitted to having done so in past 30 days prior to the survey.

In general, social disapproval for these problematic driving behaviors were high (over 80%). However, similar to the high percentages reported about the dangers of these driving behaviors, percentages are not generally in line with actual self-reported behavior (i.e., discordance between social disapproval and engaging in the driving behavior).

Interesting to note are the lower percentages around beliefs concerning police apprehension and engagement in these behaviors. With exceptions of alcohol-impaired driving (67.9%) and driving 15 miles over the speed limit on a freeway (65.1%), the majority of percentages hovered in the area of 50% or less. The lowest percentages around beliefs about apprehension were for drowsy driving (29.0%) and driving shortly after using marijuana (27.2%), albeit, self-reported engagements in these behaviors in past 30 days were also low (23.6% and 6.5%, respectively).

Table 6. Drivers' perceptions compared with their behaviors

Driving Behaviors		Very or extremely dangerous	Police will apprehend the driver	Socially disapproved	Engaged in at least once
Distracted	<i>Driven while holding and talking on a cell phone</i>	79.7	40.6	86.7	43.2
	<i>Driven while reading a text or an email on a cell phone</i>	94.3	43.7	93.2	38.6
	<i>Driven while manually typing or sending a text message or an email</i>	96.2	42.7	94.6	29.3
	<i>Talked on a cell phone using hands-free technology (Bluetooth, CarPlay etc.)</i>	22.5*	NA	NA	63.6
	<i>Sent a text or email using hands-free technology (Bluetooth, CarPlay etc.)</i>	22.5*	NA	NA	26.0
Aggressive	<i>Driven 15 mph over the speed limit on a freeway</i>	55.1	65.1	80.7	48.2
	<i>Driven 10 mph over the speed limit on a residential street</i>	63.6	50.7	87.3	41.5
	<i>Driven through a light that had just turned red when you could have stopped safely</i>	86.4	52.0	94.0	31.1
	<i>Driven aggressively by switching lanes quickly and/or very close behind another car</i>	91.8	50.4	93.7	26.5
Drowsy & Impaired	<i>Driven when you were so tired that you had a hard time keeping your eyes open</i>	96.1	29.0	97.4	23.6
	<i>Driven when you had enough alcohol that you thought you might be over the legal limit</i>	94.0	67.9	94.5	9.8
	<i>Ridden in a car driven by someone who has had too much alcohol</i>	NA	NA	96.7	10.3
	<i>Driven shortly (within an hour) after using marijuana</i>	68.6	27.2	91.0	6.5
	<i>Driven when using potentially impairing prescription drugs</i>	88.3	46.6	95.1	5.9
Other	<i>Driven without wearing a seatbelt</i>	NA	46.5	95.6	15.2

* The survey did not specify talking or typing using hands-free technology to ask how dangerous people feel the distracted driving. The following is the actual question prompted to respondents: "Drivers driving using technology that allows hands-free use of their phone (Bluetooth, CarPlay, Android Auto, etc.)".

Figures 1 to 3 clearly illustrate the discordance between drivers' attitudes/perceptions and their driving behaviors. These figures highlight findings for selected driving behaviors in each category (reading on a hand-held phone while driving, driving 15 mph over the speed limit on a freeway, and driving while

being so tired that the driver had a hard time keeping their eyes open), while Appendix B includes illustrations for all the remaining driving behaviors in each category.

Distracted Driving

Among various distracted driving issues, respondents reported the largest discordance between their attitudes and behaviors regarding reading a text/email on a hand-held cell phone while driving. Figure 1 illustrates these results.

- About **72%** of all respondents viewed reading on a hand-held cell phone while driving to be **extremely dangerous**. However, among these same respondents (i.e., only those reporting the behavior as extremely dangerous), nearly a third (**30%**) admitted **having done so** at least once in past 30 days prior to the survey.
- Only **12%** of all respondents believed that the police would very likely catch a driver for reading on a hand-held cell phone while driving. Among these 12%, **26%** **engaged in the behavior** at least once in past 30 days prior to the survey.
- About **63%** of all respondents believed that people who are important to them would **completely disapprove** of reading on a hand-held cell phone while driving. Among them, **27%** admitted **having done so** at least once in past 30 days prior to the survey.

In summary, among respondents who indicated the behavior was extremely dangerous, that drivers were very likely to be caught for engaging in them, and that the behavior would be completely disapproved of, a quarter to a third of them still self-reported engaging in the behavior in past 30 days prior to the survey.

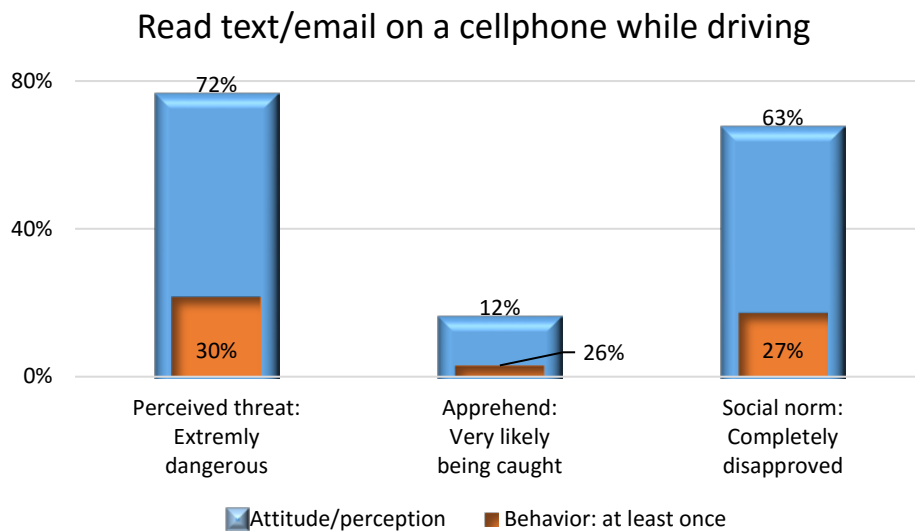


Figure 1. People’s attitude/perceptions and behaviors related to reading on a hand-held cell phone while driving

Aggressive Driving

Among various aggressive driving issues, respondents reported the largest discordance between their attitudes and behaviors regarding speeding on a freeway. Figure 2 illustrates these results.

- Among **29%** of respondents who perceived driving 15 mph over the speed limit on freeways was **extremely dangerous**, **33%** **engaged in the behavior** at least once in past 30 days prior to the survey.
- About **21%** respondents believed drivers risk being **very likely caught by the police** for driving 15 mph over the speed limit on freeways. Among these same respondents, **41%** **engaged in the behavior** at least once in past 30 days prior to the survey.
- **Forty-two percent** respondents reported that people who are important to them would **completely disapprove** of driving 15 mph over the speed limit on freeways. Among them, **26%** admitted **having done so** at least once in past 30 days prior to the survey.

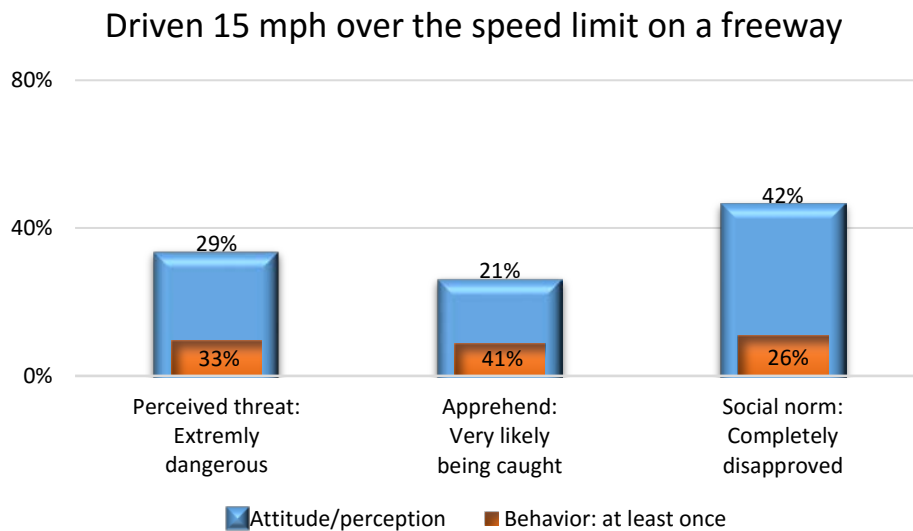


Figure 2. People’s attitude/perceptions and behaviors related to speeding on a freeway

Similar to the distracted driving behavior illustrated above, a significant portion of respondents reported driving 15 mph over the speed limit on a freeway. However, speeding was less likely to be seen as dangerous and disapproved.

Impaired Driving

Among a variety of impaired driving issues, respondents reported the largest discordance between their attitudes and behaviors regarding drowsy driving.

- As shown in Figure 3, **76%** viewed driving when you were so tired that you had a hard time keep your eyes open to be **extremely dangerous**. Among them **17%** admitted **having done so** at least once in past 30 days prior to the survey.

- Only **7%** of respondents believed that the police would very likely catch a driver for driving when so tired that you had a hard time keep your eyes open. Among these same respondents, **24% engaged in the behavior** at least once in past 30 days prior to the survey.
- About **72%** believed that people who are important to them would **completely disapprove** of driving when so tired that you had a hard time keep your eyes open. Among them, **14%** admitted **having done so** at least once in past 30 days prior to the survey.

Unlike reading an email or text while driving, among those who report drowsy driving to be extremely dangerous and completely disapproved of, between one seventh and one quarter reported actually have done so in the past 30 days. The percentage of respondents believing a driver would very likely be caught for engaging in this behavior was very low, and a quarter of them reported to have done so in the past 30 days.

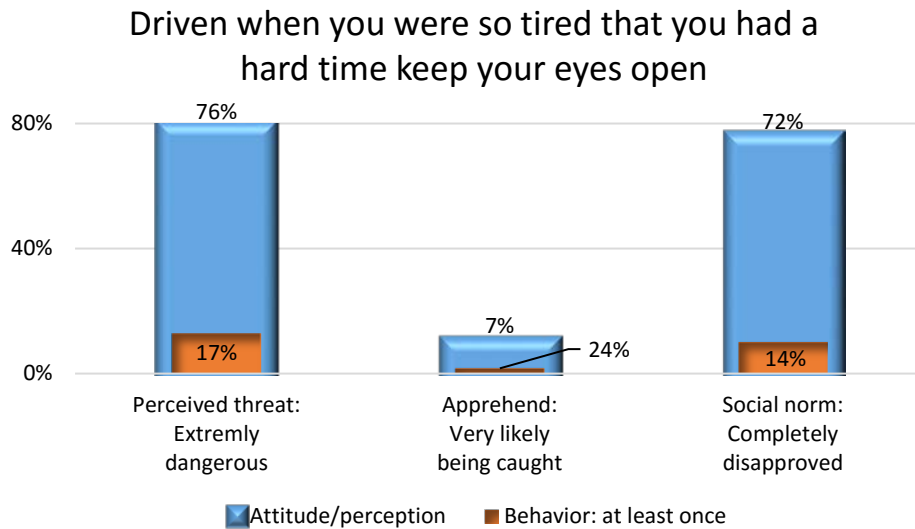


Figure 3. People’s attitude/perceptions and behaviors related to drowsy driving

It is difficult to discern which factors (i.e., perceived danger, perceived risk of apprehension, or social disapproval) might be strongly associated with the reduction of these driving behaviors from aforementioned results. Further examination is necessary. However, the discordance between these factors and self-reported behaviors appears obvious.

Drivers’ Behaviors and Crash Risk

This section compares behaviors of drivers who self-reported being involved in a crash(es) in past two years with those who have not been involved in any. Pearson’s Chi-Square (χ^2) tests were performed to test if the null hypothesis – two groups’ self-reported behaviors were identical – is valid or not based on the significance level of 0.05. The χ^2 statistic is defined as Eq(1) to compare observed (*o*) counts with

expected (e) ones under the null hypothesis of independence. To determine if a significant association was observed and, thus, observed counts are different from the hypothetical counts that would be expected, the p-value of the χ^2 statistic is computed. If the p-value, the probability of finding the observed results due to random noise when the null hypothesis is true, is small (i.e., less than 0.05), then it is proposed that there is strong evidence against the null hypothesis and reject it.

$$Eq(1) \quad \chi^2 = \sum \frac{(o - e)^2}{e}$$

Figure 4 shows that drivers who had been involved in a crash(es) in the past two years were significantly more likely to engage in any type of self-reported distracted driving behavior. For example, 43% of drivers who had been involved in a crash(es) admitted to having typed on a hand-held cell phone while driving in the past 30 days prior to the survey compared to only 27% of drivers who had not been involved in any crash in past two years. Statistics for all behaviors under the distracted driving category were found to be significantly different between drivers not involved in any crash and those involved in one or more crash(es) in past 2 years (i.e., all p-values are smaller than 0.05).

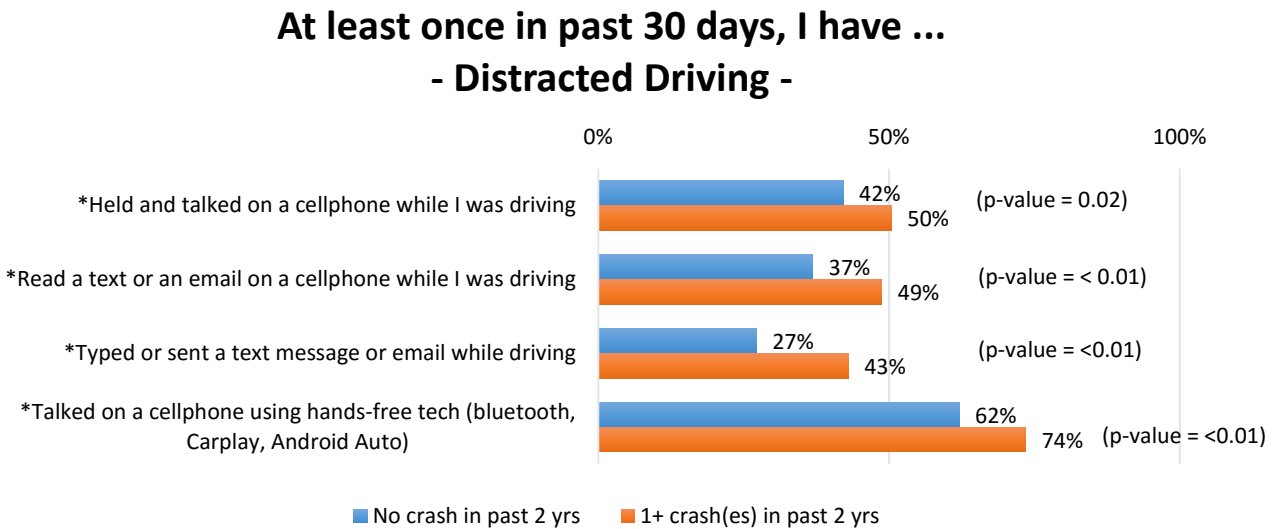


Figure 4. Drivers’ distracted driving behaviors in relation to crash involvement in past 2 years
Note: () indicates statistics between no crash and 1+ crash(es) in past 2 years are significantly different at 0.05 significance level.*

Similarly, Figure 5 shows that drivers who had been involved in a crash(es) in past two years were significantly more likely to engage in aggressive driving behavior. For example, more than half of drivers (53%) who were involved in a crash(es) admitted to having driven 10 mph over the speed limit on a residential street, while only 40% of drivers who had not been involved in any crash in the past two years admitted to having done so. Statistics for all behaviors under the aggressive driving category were

found to be significantly different between drivers not involved in any crash and drivers involved in one or more crash(es) in past 2 years (i.e., all p-values are smaller than 0.05).

At least once in past 30 days, I have ... - Aggressive Driving -

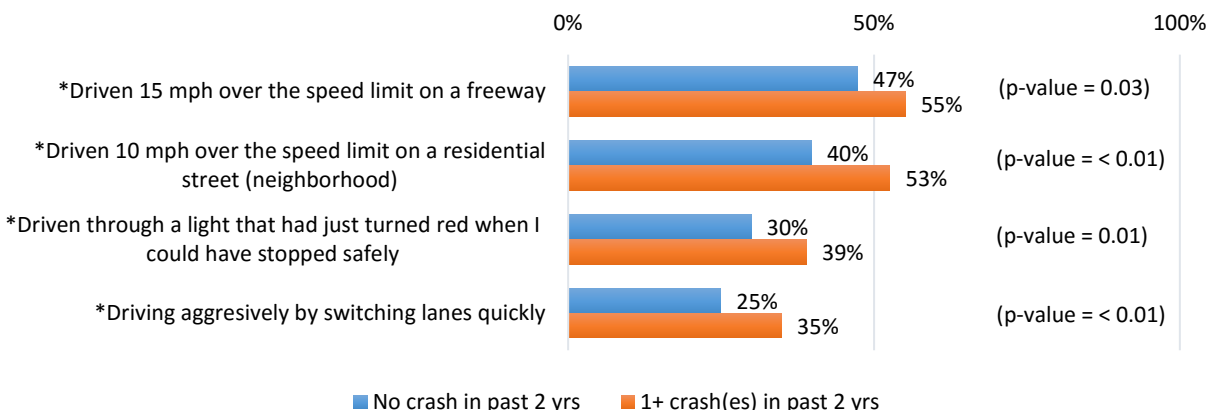


Figure 5. Drivers' aggressive driving behaviors in relation to crash involvement in past 2 years

Note: (*) indicates statistics between no crash and 1+ crash(es) in past 2 years are significantly different at 0.05 significance level.

Drivers who had been involved in a crash(es) in past two years were also more likely to engage in impaired driving behavior, as shown in Figure 6. The differences however, were small, and the two groups were not statistically different from one another.

At least once in past 30 days, I have ... - Impaired Driving -

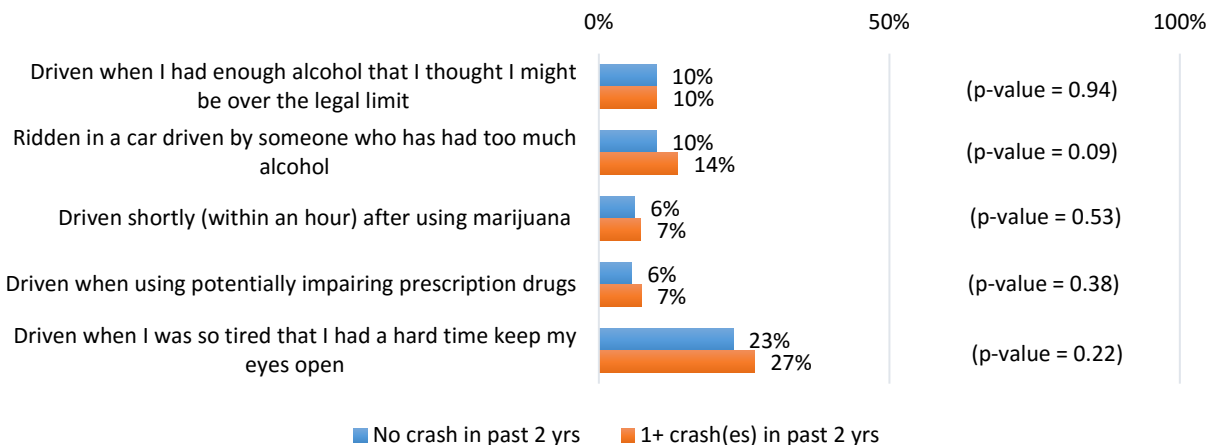


Figure 6. Drivers' impaired driving behaviors in relation to crash involvement in past 2 years

Discussion

Repeated TSCI surveys highlight the discordance between perceived danger and self-reported behaviors. Over the past two years, discordance between behavior and likelihood of apprehension (i.e., likelihood of being caught by the police) and social support (i.e., beliefs about people who are important approving of certain driving behaviors) also were investigated. The objective of these items is to assess the level of public awareness of enforcement for these behaviors and to investigate the social norms surrounding them. Analyses reveal similar discordances between self-reported behaviors and these newly added beliefs/attitudes.

This year, the AAA Foundation for Traffic Safety looked deeper into the discordance issue by focusing on those respondents reporting the most “extreme” position about the dangers, likelihood of apprehension, and complete disapproval. The analysis revealed that even among these respondents, the discordance was observed between beliefs/attitudes and self-reported behaviors. As noted, it is not clear which factors (i.e., beliefs about the dangers, perceived likelihood of apprehension, or social support) might be most associated with reducing risky driving behaviors, if any. However, the theories of Reasoned Action and Planned Behavior, which consider similar factors, have been successfully used to examine a wide range of risky behaviors (Madden, Ellen, and Ajzen, 1992). These two theories suggest that a person’s behavior is predicted by their attitude toward the behavior and the subjective norms regarding the behavior. Generally, positive attitudes and positive subjective norms result in greater likelihood of the behavior. If, for example, the driving behavior is perceived as safe and individuals in the social group are approving, there is a strong possibility that the driver will engage in the behavior. Further analyses of these factors as measured in the TSCI will be examined in the future.

Finally, new to the TSCI report is the inclusion of analyses looking at the association of engagement in risky driving behaviors and self-reported crashes. Although there appears to be an association between distracted driving behaviors and aggressive driving behaviors and crashes, the direction and magnitude of these relationships needs further investigation.

Future reports will continue to study the discordances between behaviors and attitudes/beliefs, as well as examine other potentially important driving characteristics (i.e., crashes). The newly structured TSCI survey and report offer researchers, practitioners, and advocates insights into traffic safety challenges and highlight potential factors that might be influenced to address them.

References

AAA Foundation for Traffic Safety (2019). 2018 Traffic Safety Culture Index. Washington, D.C.: AAA Foundation for Traffic Safety. Available: https://aaafoundation.org/wp-content/uploads/2019/06/2018-TSCI-FINAL-061819_updated.pdf.

Federal Highway Administration (2019, September). 2019 Traffic Volume Trends. Available: https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm.

Maden, J.T., Ellen, P.S., and Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. *Personality and Social Psychology Bulletin*, 18,1,3-9.

National Center for Statistics and Analysis (2019, December). Early estimate of motor vehicle traffic fatalities for the first 9 months (JanSep) of 2019. (Crash•Stats Brief Statistical Summary. Report No. DOT HS 812 874). Washington, DC: National Highway Traffic Safety Administration.

U.S. Census Bureau (2019). Current Population Survey: March 2019. Washington, D.C. <http://www.bls.gov/cps/>.

Appendix A: Drivers' attitudes, perceptions and behaviors in relation to age and sex

Table A1. Proportion of drivers who perceived distracted driving as very or extremely dangerous

		Holding and talking on cell phone (%)	Reading on cell phone (%)	Texting or emailing on cell phones (%)
<i>All drivers</i>		79.7	94.3	96.2
<i>Age group</i>	16-18	81.6	85.9	86.9
	19-24	76.2	84.1	94.4
	25-39	71.8	94.0	93.0
	40-59	78.8	94.6	96.9
	60-74	87.9	97.5	99.8
	75+	87.4	96.2	100.0
<i>Sex</i>	<i>Male</i>	80.6	93.3	96.8
	<i>Female</i>	78.9	95.4	95.6

Table A2. Proportion of drivers who perceived distracted driving somewhat or very likely to be caught by the police

		Holding and talking on cell phone (%)	Reading a text or an email on a cell phone (%)	Typing or sending a text message or email on a cell phone (%)
<i>All drivers</i>		40.6	43.8	42.7
<i>Age group</i>	16-18	41.8	39.7	39.7
	19-24	48.0	63.0	46.0
	25-39	43.9	50.3	47.6
	40-59	39.0	39.3	38.0
	60-74	37.6	36.9	44.7
	75+	43.5	51.6	39.8
<i>Sex</i>	<i>Male</i>	38.5	41.0	41.1
	<i>Female</i>	42.6	46.6	44.3

Table A3. Proportion of drivers who believed people who were important to them would approve of distracted driving somewhat or completely

		Holding and talking on cell phone	Reading on a cell phone	Typing or sending a text message or email on a cell phone
		(%)	(%)	(%)
<i>All drivers</i>		13.3	6.6	5.4
<i>Age group</i>	<i>16-18</i>	8.1	6.4	6.4
	<i>19-24</i>	15.6	11.4	12.8
	<i>25-39</i>	22.2	8.0	5.6
	<i>40-59</i>	8.9	5.1	6.2
	<i>60-74</i>	11.5	6.0	2.5
	<i>75+</i>	11.7	6.9	2.6
<i>Sex</i>	<i>Male</i>	11.8	7.5	3.5
	<i>Female</i>	14.7	5.7	7.2

Table A4. Proportion of drivers who reported distracted driving behaviors at least once in the past 30 days

		Holding and talking on cell phone	Reading a text or an email on a cell phone	Manually texting or sending a text message or email
		(%)	(%)	(%)
<i>All drivers</i>		43.2	38.6	29.4
<i>Age group</i>	<i>16-18</i>	44.0	45.9	34.5
	<i>19-24</i>	59.5	54.2	49.7
	<i>25-39</i>	51.9	56.0	48.9
	<i>40-59</i>	43.9	38.5	29.0
	<i>60-74</i>	34.2	23.2	10.8
	<i>75+</i>	23.7	8.8	2.5
<i>Sex</i>	<i>Male</i>	44.5	38.6	28.9
	<i>Female</i>	42.0	38.5	29.9

Table A5: Proportion of drivers who perceived aggressive driving as very or extremely dangerous

		Driving 15 mph over the speed limit on freeway	Driving 10 mph over the speed limit on a residential street neighborhood	Speeding through a red light	Aggressive driving
		(%)	(%)	(%)	(%)
<i>All drivers</i>		55.1	63.6	86.3	91.8
<i>Age group</i>	<i>16-18</i>	51.2	55.8	84.1	88.9
	<i>19-24</i>	62.4	49.0	78.0	100.0
	<i>25-39</i>	47.1	59.0	79.1	85.4
	<i>40-59</i>	56.3	69.0	90.6	93.1
	<i>60-74</i>	60.1	63.2	89.8	94.7
	<i>75+</i>	58.0	71.1	90.0	94.5
<i>Sex</i>	<i>Male</i>	49.7	59.1	86.2	88.7
	<i>Female</i>	60.0	68.4	86.4	94.6

Table A6: Proportion of drivers who perceived aggressive driving somewhat or very likely to be caught by the police

		Driving 15 mph over the speed limit on freeway	Driving 10 mph over the speed limit on a residential street neighborhood	Speeding through a red light	Aggressive driving	Driving without wearing a seatbelt
		(%)	(%)	(%)	(%)	(%)
<i>All drivers</i>		65.1	50.8	51.9	50.4	46.5
<i>Age group</i>	<i>16-18</i>	63.4	49.7	55.3	51.5	39.1
	<i>19-24</i>	85.3	54.7	43.0	51.0	36.2
	<i>25-39</i>	70.7	54.7	58.6	51.2	47.0
	<i>40-59</i>	65.0	48.4	47.0	51.8	46.2
	<i>60-74</i>	57.6	49.2	55.2	47.8	49.4
	<i>75+</i>	58.5	52.3	45.1	48.4	47.8
<i>Sex</i>	<i>Male</i>	61.1	49.7	49.6	47.1	46.1
	<i>Female</i>	68.6	52.0	54.2	53.4	46.9

Table A7: Proportion of drivers who believed people who were important to them would approve of aggressive driving somewhat or completely

		Driving 15 mph over the speed limit on freeway	Driving 10 mph over the speed limit on a residential street neighborhood	Speeding through a red light	Aggressive driving	Driving without wearing a seatbelt
		(%)	(%)	(%)	(%)	(%)
<i>All drivers</i>		19.3	12.6	6.0	6.3	4.5
<i>Age group</i>	<i>16-18</i>	11.3	7.6	4.2	6.1	2.1
	<i>19-24</i>	0.0	7.4	0.0	8.0	0.0
	<i>25-39</i>	22.7	18.2	10.4	10.0	4.9
	<i>40-59</i>	19.9	11.2	5.9	3.7	5.2
	<i>60-74</i>	18.8	12.0	3.1	5.6	4.2
	<i>75+</i>	21.4	9.2	2.8	8.6	3.6
<i>Sex</i>	<i>Male</i>	19.8	13.2	4.8	5.6	4.5
	<i>Female</i>	18.9	11.9	7.1	6.9	4.4

Table A8: Proportion of drivers who reported aggressive driving behaviors at least once in the past 30 days

		Driving 15 mph over the speed limit on freeway	Driving 10 mph over the speed limit on a residential street neighborhood	Speeding through a red light	Aggressive driving	Driving without wearing a seatbelt
		(%)	(%)	(%)	(%)	(%)
<i>All drivers</i>		48.2	41.5	31.0	26.3	15.2
<i>Age group</i>	<i>16-18</i>	39.7	46.5	31.5	31.1	16.5
	<i>19-24</i>	55.2	52.2	44.6	44.1	16.2
	<i>25-39</i>	56.2	45.1	34.6	36.1	18.7
	<i>40-59</i>	46.2	39.7	29.0	25.3	14.8
	<i>60-74</i>	45.0	40.0	28.0	15.5	12.1
	<i>75+</i>	37.4	31.3	27.9	15.6	13.8
<i>Sex</i>	<i>Male</i>	52.0	44.2	32.2	31.5	17.2
	<i>Female</i>	44.6	38.8	30.0	21.4	13.3

Table A9. Proportion of drivers who reported drowsy driving, alcohol-impaired and drug impaired driving as very or extremely dangerous

		Driving while being so tired that they had had a hard time keeping their eyes open (%)	Drinking enough alcohol that they may be over the legal limit (%)	Driving shortly (within an hour) after using marijuana (%)	Driving after using potentially prescription drugs (%)
<i>All drivers</i>		96.1	94.0	68.7	88.4
<i>Age Group</i>	16-18	90.6	92.5	80.9	88.0
	19-24	100.0	90.5	56.9	79.2
	25-39	96.3	95.6	63.7	89.7
	40-59	94.8	95.5	68.0	91.1
	60-74	97.3	92.1	76.6	85.2
	75+	97.9	92.2	72.8	89.7
<i>Sex</i>	Male	95.3	92.5	66.3	86.3
	Female	96.8	95.6	71.0	90.6

Table A10. Proportion of drivers who perceived drowsy driving, alcohol-impaired and drug impaired driving somewhat or very likely to be caught by the police

		Driving while being so tired that they had had a hard time keeping their eyes open (%)	Drinking enough alcohol that they may be over the legal limit (%)	Driving shortly (within an hour) after using marijuana (%)	Driving after using potentially prescription drugs (%)
<i>All drivers</i>		28.9	68.1	27.2	46.7
<i>Age Group</i>	16-18	34.0	68.0	40.2	59.0
	19-24	26.4	83.1	20.6	63.5
	25-39	33.1	70.8	31.6	48.9
	40-59	26.3	66.6	22.8	45.8
	60-74	28.3	65.9	29.8	40.0
	75+	28.7	61.1	24.0	46.6
<i>Sex</i>	Male	28.1	69.8	27.7	47.0
	Female	29.6	66.4	26.7	46.3

Table A11. Proportion of drivers who believed people who were important to them would approve of engaging in drowsy driving, alcohol-impaired and drug impaired driving somewhat or completely

		Driving while being so tired that they had had a hard time keeping their eyes open (%)	Drinking enough alcohol that they may be over the legal limit (%)	Ridden in a car driven by someone who has had too much alcohol (%)	Driving shortly (within an hour) after using marijuana (%)	Driving after using potentially prescription drugs (%)
<i>All drivers</i>		2.7	5.4	3.3	9.0	4.8
<i>Age Group</i>	16-18	2.1	5.7	2.2	2.5	4.5
	19-24	0.0	11.4	8.0	6.6	3.5
	25-39	4.5	8.3	4.3	12.7	8.1
	40-59	2.6	3.2	2.6	8.6	4.1
	60-74	1.7	4.3	3.3	6.9	3.0
	75+	1.7	3.9	1.7	7.1	4.2
<i>Sex</i>	<i>Male</i>	2.8	6.9	4.2	6.9	5.8
	<i>Female</i>	2.6	3.7	2.5	11.0	3.6

Table A12. Proportion of drivers who reported engaging in drowsy driving, alcohol-impaired and drug impaired driving in the past 30 days

		Driving while being so tired that they had had a hard time keeping their eyes open (%)	Drinking enough alcohol that they may be over the legal limit (%)	Ridden in a car driven by someone who has had too much alcohol (%)	Driving shortly (within an hour) after using marijuana (%)	Driving after using potentially prescription drugs (%)
<i>All drivers</i>		23.6	9.8	10.3	6.3	5.8
<i>Age Group</i>	16-18	24.7	5.4	9.5	9.4	5.3
	19-24	31.3	15.4	20.7	15.9	11.7
	25-39	31.2	11.1	12.7	9.2	7.4
	40-59	22.6	10.2	8.5	5.3	4.3
	60-74	17.2	7.9	9.5	3.6	5.0
	75+	15.1	6.7	6.2	1.3	6.6
<i>Sex</i>	<i>Male</i>	25.0	13.1	10.5	8.1	6.7
	<i>Female</i>	22.2	6.6	10.2	4.7	4.9

Appendix B: Discordances between drivers' attitudes/perceptions and behaviors

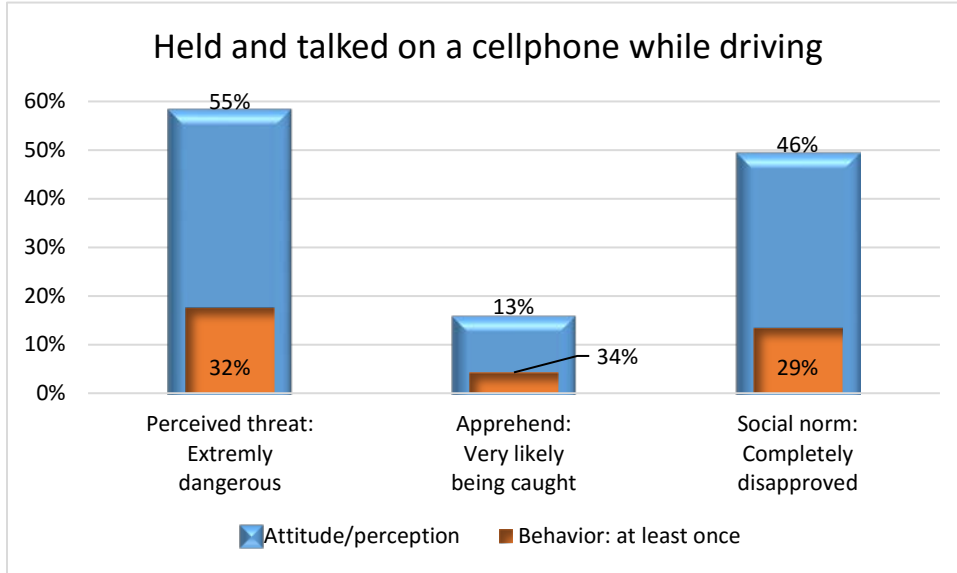


Figure B1. People's attitude/perceptions and behaviors related to driving while talking on a hand-held cell phone

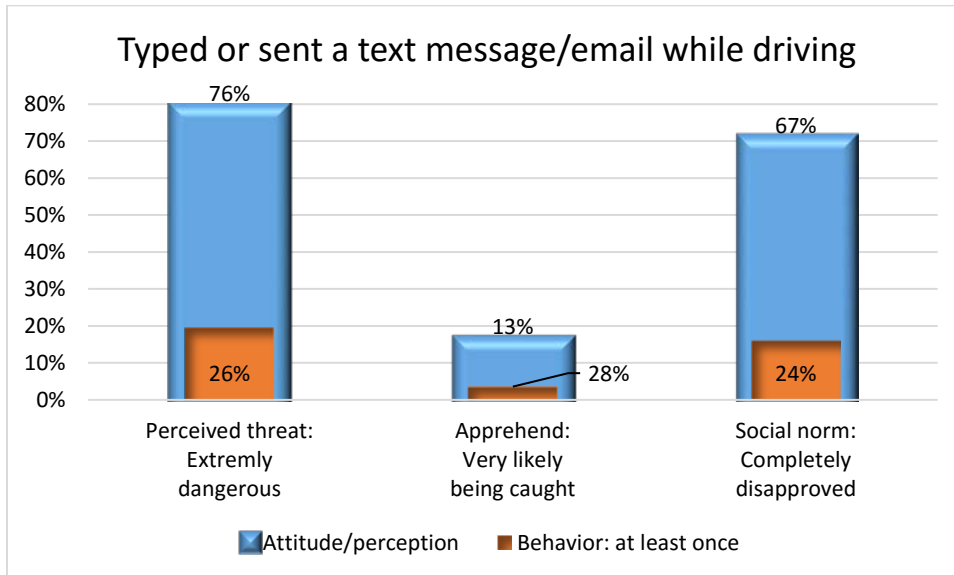


Figure B2. People's attitude/perceptions and behaviors related to driving while typing or sending a text or email on a hand-held cell phone

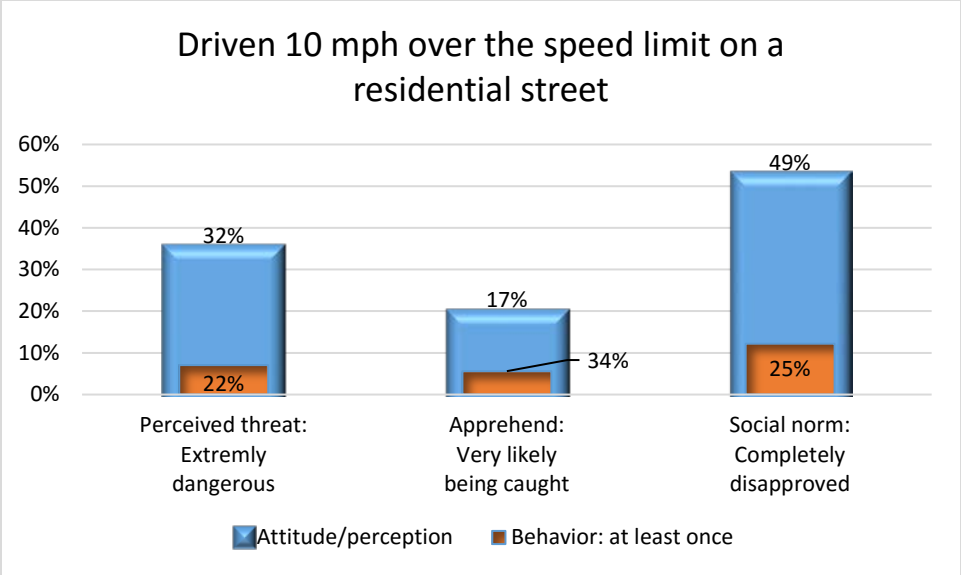


Figure B3. People’s attitude/perceptions and behaviors related to speeding on a residential street

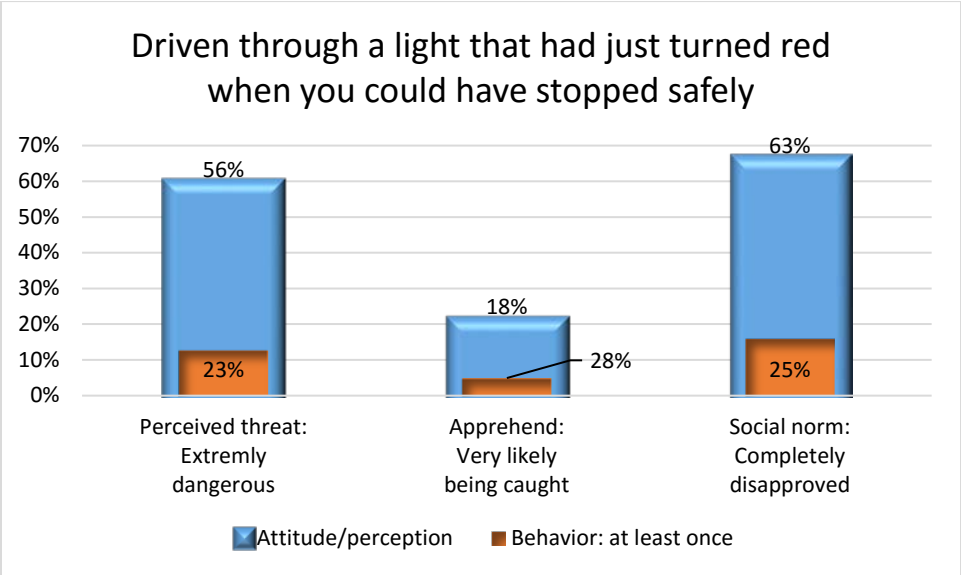


Figure B4. People’s attitude/perceptions and behaviors related to driving through a red light

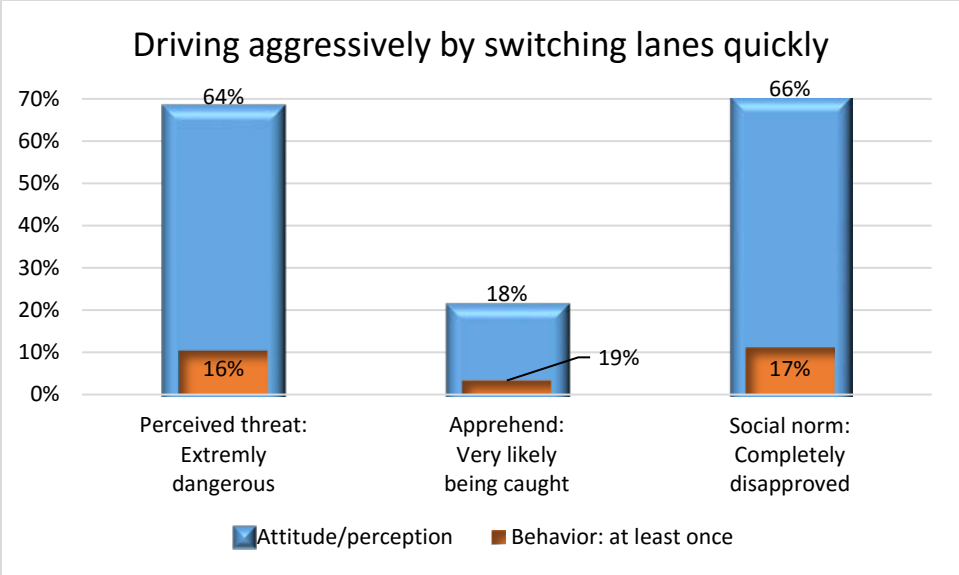


Figure B5. People’s attitude/perceptions and behaviors related to driving aggressively by switching lanes quickly

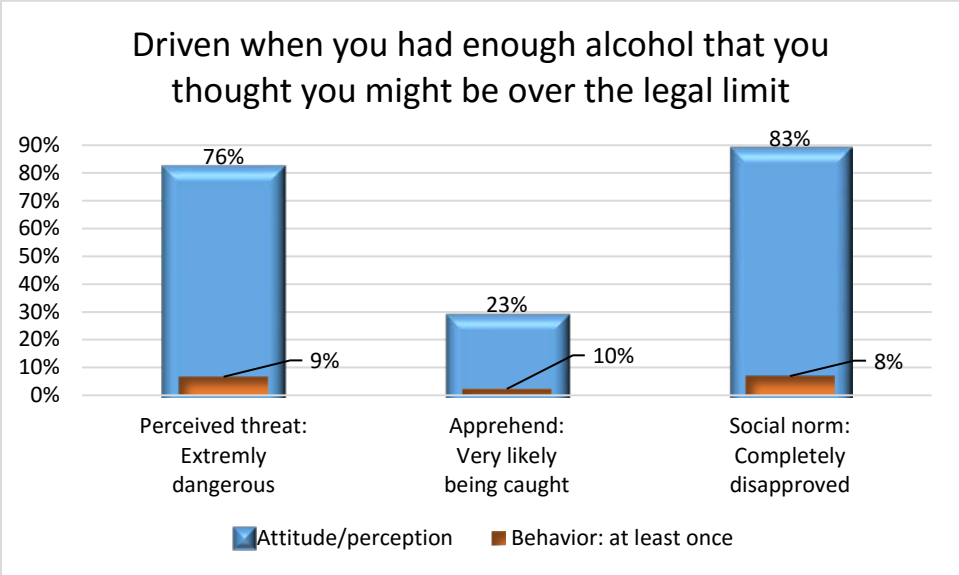


Figure B6. People’s attitude/perceptions and behaviors related to driving when having enough alcohol that might be over the legal limit

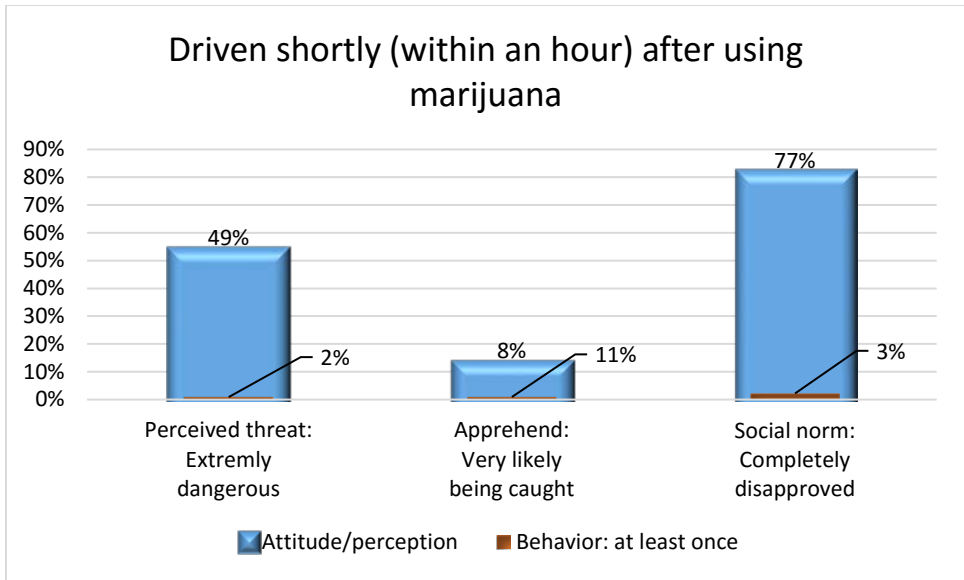


Figure B7. People's attitude/perceptions and behaviors related to driving shortly after using marijuana

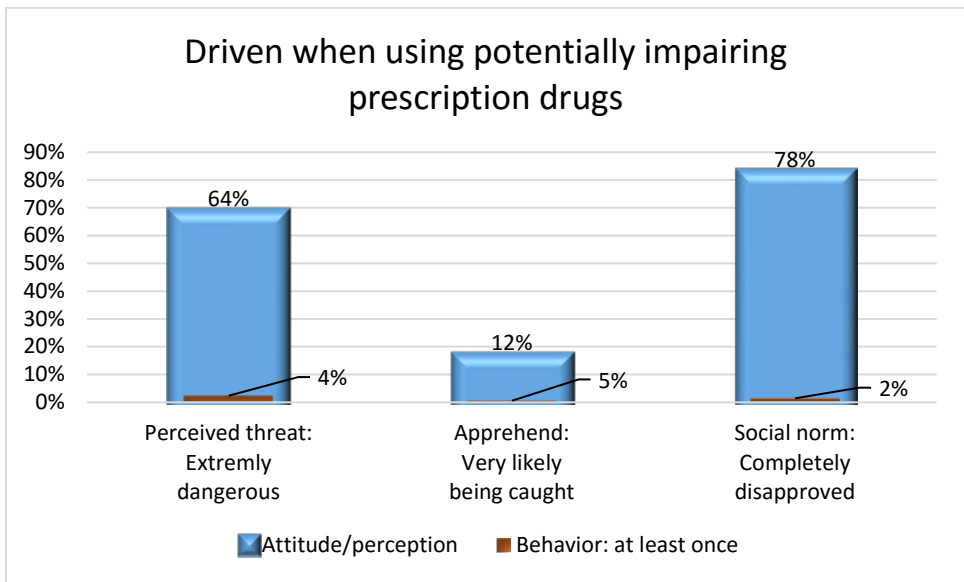


Figure B8. People's attitude/perceptions and behaviors related to driving when using potentially impairing prescription drugs