



»» **Directing
Drivers'
Attention**

A State Highway Safety Office Roadmap
for Combating Distracted Driving



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Abbreviations

ADAS	Advanced Driver Assistance System
BTSCR	Behavioral Traffic Safety Cooperative Research Program
CDC	Centers for Disease Control and Prevention
DOT	Department of Transportation
FFY	Federal Fiscal Year
FMCSA	Federal Motor Carrier Safety Administration
GDL	Graduated Driver Licensing
GHSA	Governors Highway Safety Association
HSIP	Highway Safety Improvement Program
HSP	Highway Safety Plan
HVE	High Visibility Enforcement
IIHS	Insurance Institute for Highway Safety
IIJA	Infrastructure Investment and Jobs Act
MMUCC	Model Minimum Uniform Crash Criteria
NAEM	National Academies of Sciences, Engineering and Medicine
NCSA	National Center for Statistics and Analysis
NCSL	National Conference of State Legislatures
NDS	Naturalistic Driving Study
NHTSA	National Highway Traffic Safety Administration
NOPUS	National Occupant Protection Use Survey
NSC	National Safety Council
OEM	Original Equipment Manufacturer
SHSO	State Highway Safety Office
SHSP	Strategic Highway Safety Plan
SHRP 2	Second Strategic Highway Research Program
TRCC	Traffic Records Coordinating Committee
YRBS	Youth Risk Behavior Survey

Introduction

Just what is a distraction?

» Any activity that diverts the vehicle operator's attention from driving.

— National Highway Traffic Safety Administration



All drivers have done it.

Whether it's checking the GPS, sipping coffee or breaking up a kids' fight in the back seat, we've all allowed ourselves to get momentarily distracted when driving. These aren't anonymous strangers you don't know. Your family, your friends, your neighbors who you think of as good drivers...yes, even they do it sometimes. These actions and others are putting lives at risk every day.

The Governors Highway Safety Association (GHSA) produced this report to identify what must be done to address the problem of distracted driving and to foster discussion and action that advances the safety of all roadway users. It is primarily directed to GHSA's members, the State and Territorial Highway Safety Offices (SHSOs) tasked with addressing the behavioral causes of motor vehicle crashes. GHSA also hopes that advocates, educators, law enforcement, elected officials, automakers, the public, and planning and transportation professionals will find it instructive.

This publication does not include every distracted driving policy or program, and the inclusion of a policy or program does not imply endorsement by GHSA or General Motors (GM), which provided financial support.

The Scope of the Problem

According to the Fatality Analysis Reporting System (FARS), an estimated 3,142 people lost their lives in the U.S. due to distracted driving in 2020. That's an increase of about 1% from 2019, when 3,119 distracted driving related deaths occurred (Stewart, 2022).

The National Highway Traffic Safety Administration's (NHTSA) National Center for Statistics and Analysis (NCSA) suggests the true number of fatalities is likely much higher. There are several reasons for this that will be described in detail in this report. The underreporting of distracted driving undercuts efforts to address it and creates false perceptions about the persistent and dangerous nature of this highway safety problem.

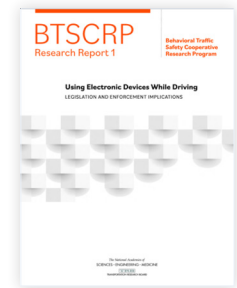
3,142

The estimated number of people who lost their lives due to distracted driving in 2020, but the true number is likely much higher.

Building on Earlier Work

A little over 10 years ago, GHSA released *Distracted Driving: What Research Shows and What States Can Do*. It was a comprehensive look at the issue with actionable steps for states (Sprattler, 2013). Two years later, GHSA followed that up with a survey of SHSOs that highlighted efforts to combat distracted driving. In 2015, GHSA published *Distracted and Dangerous: Helping States Keep Teens Focused on the Road*. This report discussed more than two dozen state policy, engagement and education initiatives directed at high-risk drivers (Fischer, 2015).

GHSA manages the national Behavioral Traffic Safety Cooperative Research Program (BTSCRP), which in 2021 released *Using Electronic Devices While Driving: Legislation and Enforcement Implications*. It reviews distracted driving laws, enforcement and public education practices across the U.S. and Canada and provides guidance and resources to help states build support for and advance legislation and strategies for enforcing these laws once enacted (NASEM, 2021a).



[Read the report](#)

This new GHSA report builds on these resources by:

- » Summarizing current research, trends, public opinion, policy and countermeasures.
- » Examining the potential distraction associated with new vehicle technologies, such as Advanced Driver Assistance Systems (ADAS), and ways to mitigate them.
- » Reviewing SHSO distracted driving initiatives and the challenges impacting those efforts.
- » Identifying promising practices and recommendations for SHSO consideration.

Some of the policies, programs and challenges associated with distracted driving were identified through a survey of SHSOs conducted by GHSA in December 2021. The survey was designed to identify challenges and opportunities for SHSOs and potential best practices to help address distracted driving. Twenty-six states provided responses about laws, enforcement efforts, data collection and partnerships. Unless otherwise stated, references in this report to percentages of states are based on SHSO input received from the survey.

In addition to the SHSO survey, survivor advocates, NHTSA officials and representatives of nonprofits, business and technology companies were also interviewed. They provided additional insights about distracted driving, including the implications of new technologies that can hinder or help improve safety.

Recommendations for SHSOs

The following recommendations are listed in the order they appear in this report and are discussed in detail. They are provided in this format to help states assess their current distracted driving laws, programs and practices.

Distracted Driving Laws

- ☐ Implement Graduated Driver Licensing (GDL) restrictions to limit the number of teen passengers a novice driver may transport.
- ☐ Educate legislators about the impact of distracted driving by providing data analysis that includes not only the number of crashes, injuries and fatalities, but also the associated costs, the demographics and roadway users most affected.
- ☐ Work with non-SHSO partners to implement distracted driving education programs, address funding issues and coordinate on legislative initiatives.
- ☐ Educate the public about distracted driving laws and the important role they play in reducing this risky behavior.
- ☐ Collaborate with survivor advocates to put a face on the distracted driving problem.

Data

- ☐ Collect state-level distracted driving data and tailor countermeasures to address specific state needs. Work with the Traffic Records Coordinating Committee (TRCC) to include the Model Minimum Uniform Crash Criteria (MMUCC) 5th edition distracted driving action and Source Attribute Values on the state crash report. Train law enforcement on the importance of collecting this data and provide officers with guidance on recording each attribute value.
- ☐ Expand distracted driving data analysis beyond crash and citation data and enforcement-related output measures to include items such as frequency, type and duration of distractions, which may be gathered by corporate partners.
- ☐ Conduct pre- and post-observational surveys to evaluate the impact of distracted driving programs and enforcement efforts, as well as to measure the magnitude of the problem.
- ☐ Conduct an observational survey, paired with a telephone attitudinal survey, to better understand who is more likely to drive distracted and driver attitudes about the behavior.

Education and Public Outreach

- ☐ Educate drivers about the correct use of ADAS and reinforce the need to stay focused on the road even when these technologies are in use.
- ☐ Teach and encourage youth — and all passengers — to effectively speak up in a nonconfrontational manner when a driver is distracted.
- ☐ Partner with insurers and other entities to offer incentive programs that reward drivers for safe driving behaviors.
- ☐ Educate employers about the costs and reasons employees drive distracted and help them institute and enforce employee policies.
- ☐ Conduct additional evaluation of distracted driving countermeasures to help SHSOs select more effective programs and initiatives that are most likely to result in behavioral and attitudinal changes.

Recommendations for SHSOs, continued

Enforcement

- ☐ Conduct equitable, high visibility enforcement (HVE) of state and local distracted driving laws.
- ☐ Explore the use of innovative distracted driving enforcement strategies to overcome enforcement barriers.
- ☐ Continue to evaluate the effectiveness of various HVE initiatives on distracted driving.
- ☐ Consider emerging technological solutions such as cameras that use artificial intelligence to identify and address distracted driving.
- ☐ Examine SHSO practices and direction to law enforcement grantees to encourage agencies to focus distracted driving enforcement on risky driving behaviors.

Infrastructure

- ☐ Partner with state and local infrastructure authorities to educate elected officials, partners, the media and the public about infrastructure improvements, such as cable median barriers and rumble strips, which can help mitigate distracted driving.
- ☐ Support distracted driving corridor projects through public outreach and by providing enforcement grants.

Competing Highway Priorities and Funding

- ☐ Consider whether to apply for the Federal Fiscal Year (FFY) 2024 NHTSA Section 405(e) distracted driving grant, which is expected to have broader eligibility standards.
- ☐ Promote the use of Highway Safety Improvement Program (HSIP) funds for behavioral distracted driving countermeasures.
- ☐ Seek out and apply for state and local grant opportunities and partner with traditional and non-traditional partners that can provide resources and in-kind services to help expand distracted driving outreach and initiatives.

Leadership and Partner Support

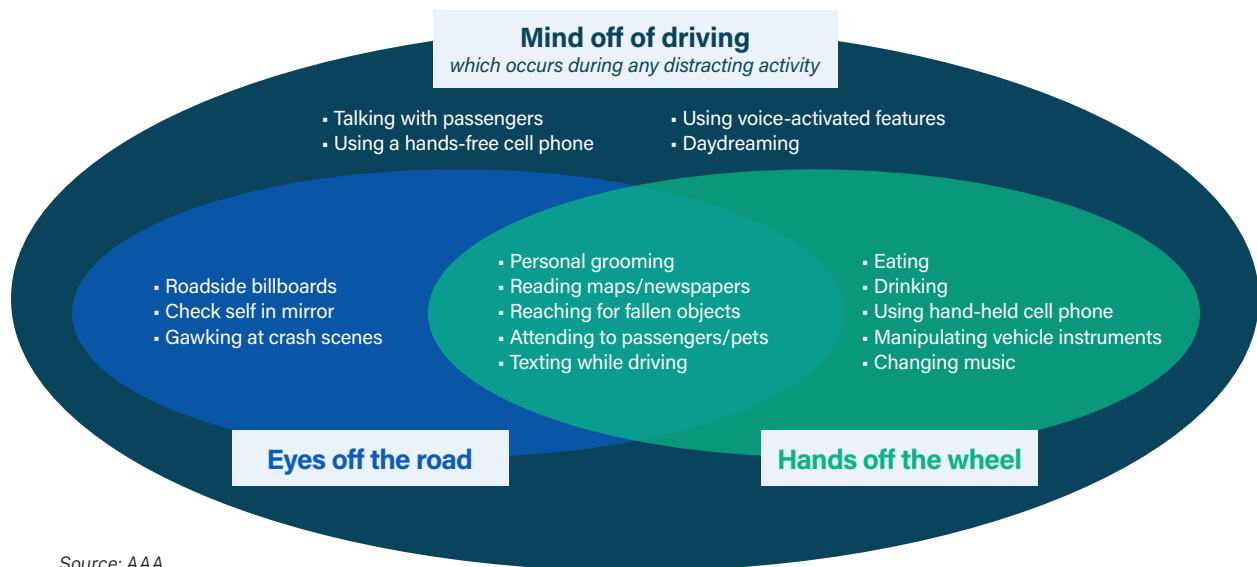
- ☐ Include distracted driving as a program area, with a performance measure and target, in the Highway Safety Plan (HSP).
- ☐ Work with state partners to include distracted driving as an emphasis area in the Strategic Highway Safety Plan (SHSP).
- ☐ Be a state anti-distracted driving leader by promoting a strong safety culture among partner agencies. Encourage them to conduct their own distracted driving programs and establish and enforce an employee distracted driving policy.
- ☐ Expand the SHSO's network to include state and federal agencies, nonprofit organizations and survivor advocacy groups that have distracted driving resources and programs.
- ☐ Promote the role of behavioral safety programs to combat distracted driving as a component of the Safe System approach.

Understanding Distracted Driving

Extent of the Problem

NHTSA defines distracted driving as any activity that diverts the vehicle operator's attention from driving (NHTSA, 2022a). The three forms of distraction — manual, visual and cognitive — are often overlapping, interrelated and involve a wide range of activities in addition to wireless device use. However, much of the focus is on the risks of using cell phones and other wireless devices behind the wheel (AAA, 2021).

Understanding Distraction



Source: AAA

The second Strategic Highway Research Program (SHRP 2) Naturalistic Driving Study (NDS), conducted by the Virginia Tech Transportation Institute (VTTI), classifies distractions based on prevalence and risk during the seconds leading up to an injury or property damage crash (see the graphic to the right) and shows why these behaviors deserve an elevated level of attention. While many secondary tasks or activities are detrimental to driver safety, the use of hand-held electronic devices presents both high use rates and risks (Dingus et al., 2016).

Despite efforts to document and measure distracted driving, a comprehensive and definitive sense of the full extent of the problem remains elusive.

Distractions by Prevalence and Risk

	Low prevalence	High prevalence
High risk	- Makeup - Donning clothing - Reading/writing	- Cell dial - Cell text - Reaching for object - Cell browse - In-vehicle device
Low risk	- Dancing in seat/singing - Child rear seat	- Drinking - Eating - Interacting with passengers

Source: Dingus, et al., 2016

KEY FACTS

- » A substantial portion of crashes involve some form of distraction, but this risky behavior is likely significantly underreported.
- » Based on some limited data, manual manipulation of devices appears to be overtaking hand-held phone conversations while driving.
- » Drivers of all ages are distracted, but teen drivers are more likely to be involved in a fatal crash where distraction was a factor.

National Crash Data

NHTSA aggregates fatal crash data from states, which compile data about fatal crashes from police crash reports. In 2020 (the latest year for which national data is available), 3,142 people in the U.S. died in crashes involving a distracted driver, slightly more than 8% of all fatal crashes (Stewart, 2022). The NCSA provides the following key facts about distracted driving based on data available for 2019, the latest year for which this detailed information is available (NCSA, 2021):

- » An additional 424,000 people were injured in motor vehicle crashes involving distracted drivers (15%).
- » In all, 15% of police-reported motor vehicle traffic crashes listed distraction as a factor.
- » A total of 566 nonoccupants — pedestrians, bicyclists and others — were killed in distraction-affected crashes.
- » Drivers 15 to 20 years of age were more likely than any other age group to be distracted at the time of a fatal crash (344 of 3,968 drivers, 9%).

In recent years, NHTSA's measurement of distracted driving has maintained a notably consistent trend. Between 2011 and 2019, the percentage of distracted-affected crashes hovered around 14% and the percentage of those crashes involving cell phones was approximately 7%. Based on what is known about distracted driving crashes, national progress on preventing them appears to be stagnant (NCSA, 2021; NCSA, 2017).

Based on what is known about distracted driving crashes, **national progress on preventing them appears to be stagnant.**

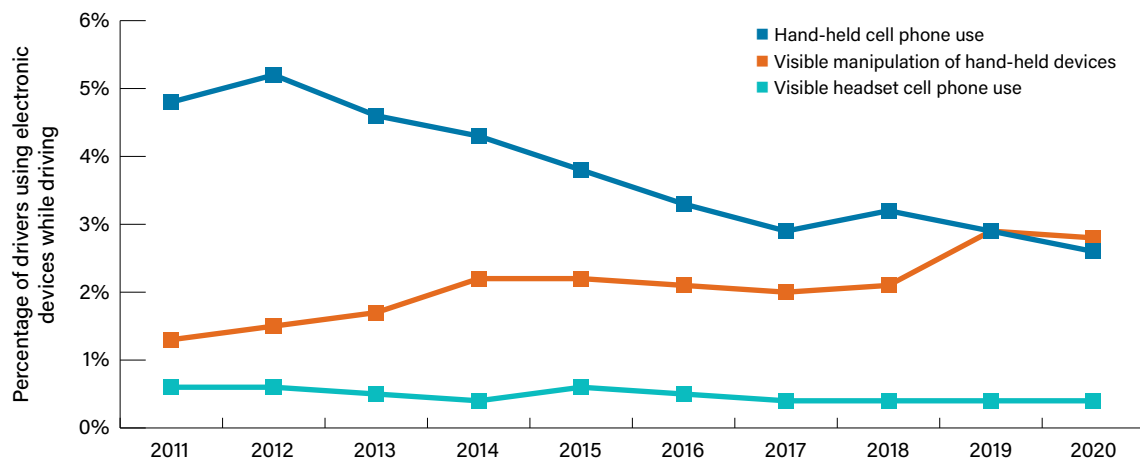
Many highway safety advocates have long argued that distracted driving data is underreported, and the problem is likely much worse than it appears (National Academies of Sciences, Engineering and Medicine [NASEM], 2021b). Any user of U.S. roadways can anecdotally attest to the prevalence of drivers who appear distracted. The challenges of distracted driving data collection and analysis, which impact these national tallies and estimates, are discussed in greater detail later in this report.

Observational Research

In addition to collecting and reviewing crash data, experts have measured the extent of the distracted driving problem by carrying out observational research. NHTSA, for instance, leverages its annual National Occupant Protection Use Survey (NOPUS), which uses trained observers on randomly selected roadways across the U.S. In 2020, observers found that 2.6% of drivers were

holding a cell phone to their ear and 2.8% were observed physically manipulating an electronic device (NCSA, 2021, November, revised). This ongoing observational research has documented a trend in which hand-held cell phone use behind the wheel appears to have declined since 2012, while manual device manipulation, such as texting or app use, has increased.

Driver Use of Electronic Devices, 2011–2020



Source: NCSA, 2021, November, revised

States and researchers, including the Insurance Institute for Highway Safety (IIHS), have also conducted their own observational surveys. For example, in 2017 the California Office of Traffic Safety conducted an observational study of hand-held electronic devices in 204 locations. Of the 19,000 drivers observed, 3.58% were using cell phones. Hand-held device use was more prevalent in single occupant vehicles, in vans and SUVs, and on local roads.

Naturalistic Research

Rather than relying only on police crash reports or limited observations, some researchers have conducted “naturalistic” studies to document distracted driving activities in real-world driving conditions. The most well-known is the SHRP 2 NDS conducted by VTTI. This study evaluated risk factors during the seconds leading up to an injury or property damage crash. Multiple onboard video cameras and sensors collected more than 3,500 driver observations that revealed:

- » Distracted driving is widespread, with drivers in the study engaging in potentially distracting activities in more than 51% of baseline driving time.
- » Distraction was a factor in 68.3% of the injury and property damage crashes observed in the study.
- » Many secondary tasks or activities were detrimental to driver safety, particularly activities that took the driver’s eyes away from the roadway. The use of hand-held electronic devices had both high use rates and risks and talking on a hand-held cell phone more than doubled crash risk.

Estimating the population-attributable risk for distraction overall, the VTTI researchers concluded that potentially four million of the 11 million crashes that occur each year in the U.S. could be avoided if distraction was not a factor. They also posited that the expanding number of activities available on cell phones (e.g., browsing the web, text messaging) were likely “the single factor [responsible] for the greatest increase in vehicle crashes in the U.S.” (Dingus et al., 2016).

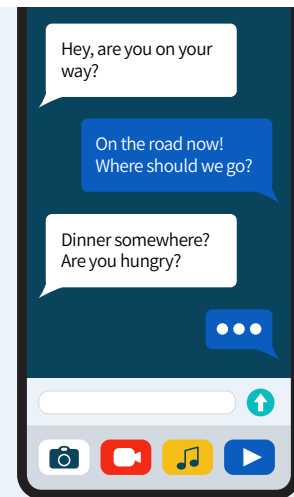
Experimental Research

SHRP 2 provides a rich dataset that researchers are continuing to analyze. However, conducting such large-scale naturalistic research is time- and resource-intensive. That is why, over the last two decades, many other researchers have quantified the risks of various distracted driving activities in more controlled experimental or laboratory settings, or with narrower data analyses.

A wide range of studies have established that driver distraction, particularly visual and manual activities such as interaction with an electronic device, increases crash risk (NASEM, 2021b). An analysis by AAA of the SHRP 2 NDS dataset concluded that the likelihood of crash involvement nearly doubled when drivers were engaging in visual-manual cell phone tasks. When taken together, the risk more than doubled when drivers used text messaging while driving (Owens et al., 2018). Some experts continue to debate the specific crash risk of talking on a cell phone, which may be due to differing study designs and the difficulty of evaluating the impact of this behavior (Dingus et al., 2016).

Distraction does not just involve where one looks or what one does with their hands; distraction is also a mental state. Until 2013, researchers struggled to understand the cognitive nature of distracted driving. Then AAA released groundbreaking research that measured how auditory/vocal tasks while driving, such as cell phone conversations and voice commands, impose a greater mental workload (Strayer et al., 2014). Legislation to ban this cognitive distraction or other cognitively distracting activities, which cannot necessarily be readily observed, would be difficult, if not impossible, to enforce, making it ineffective. However, public education countermeasures designed to generate greater awareness and understanding of the role of cognitive distraction may be helpful.

Prior research on distracted driving has suggested that hands-free phone use had no safety benefit compared to hand-held phone use due to the cognitive distraction involved (National Safety Council [NSC], 2012). However, more recent studies have called that into question. An analysis of SHRP NDS 2 data found that talking (but not dialing) on a hands-free phone did not increase risk over just driving (Dingus et al., 2019). Hands-free use is perceived by drivers to be safer, and state laws and vehicle design increasingly encourage the practice. More recent research into cognitive distraction, described later in this report, also suggests that vehicle interfaces that support hands-free use can be designed to reduce the potential for distraction. The comparative risk between hands-free and hand-held device use remains unsettled and continues to warrant further study.



Observational research has shown manual manipulation of hand-held devices — such as texting and driving — is on the rise.

A wide range of studies have found this activity increases crash risk — with one analysis concluding it nearly doubles the likelihood of crash involvement.

Distraction and Driver Age

Some might consider distracted driving more of a problem among teens and younger drivers; however, data show that it is prevalent across all age groups. For example, the Travelers Indemnity Company surveyed 1,000 employees — ages 18 to 64 that regularly drive to work — about work-related distracted driving. While work-related distraction decreased with age, all age groups surveyed said they drove distracted — more than half (54%) of 18–34-year-olds and more than one-third of 45–54-year-olds (37%) and 55–64-year-olds (33%). In addition, 18–34-year-olds texted or called a coworker 24% of the time when they knew their colleague was driving (Travelers, 2017).

Despite the propensity for all age groups to engage in this risky behavior, younger drivers face unique challenges and a higher crash risk in general due to inexperience, risk-taking and lack of skills (Fischer, 2015). In 2018, 25% of distracted drivers involved in fatal crashes were 20-29 years of age. But 15–19-year-olds accounted for the largest proportion of drivers involved in fatal crashes among all age groups at 8%, compared to 6% for drivers 20-29 years of age (NCSA, 2020).

Data also indicate that wireless device use appears to be more common among younger drivers. A study using the SHRP 2 NDS data showed that while drivers in general sent an average of 1.6 texts and 1.2 calls per hour of driving, 16-19-year-olds and 20-29-year-olds sent an average of 2.9 and 2.6 texts, respectively, per hour while behind the wheel (Atwood et al., 2018).

Meanwhile, the Centers for Disease Control and Prevention's (CDC) 2019 Youth Risk Behavior Survey (YRBS) found that 39% of high school students who drove in the past 30 days reported texting or emailing while driving at least once. That figure soared to 60% for students 18 and older. Since the YRBS began asking teens this question in 2013, there has been no change in the percentage of students reporting the behavior (CDC, 2020a).

60%

Percentage of students 18+ who reported texting or emailing while driving at least once during a 30-day period.

Highway safety programs aimed at teen drivers and younger children have the potential to address these unique circumstances. The focus should be on helping children and teens learn that all forms of distraction are dangerous and socially unacceptable, so they refrain from engaging in this behavior once they are licensed to drive.

Factors Affecting Distracted Driving

Distracted driving is affected by numerous factors including:

- » Driver attitudes and behavior
- » Laws and regulations
- » Law enforcement
- » Vehicle and wireless technology

Understanding each of these factors is critical for developing and implementing appropriate countermeasures.

KEY FACTS

» Most Americans are concerned about the threat of distracted driving, yet a significant proportion report continuing to engage in potentially distracting activities.

» The use of wireless devices is rampant, and many drivers use their phones behind the wheel.

Driver Attitudes and Behavior

When it comes to distracted driving, a prevailing attitude is “do as I say, not as I do.” Most people think distracted driving is dangerous and have negative feelings about those who do it, but they do it anyway. An annual AAA survey of drivers has consistently documented this problem since 2009. The latest AAA Traffic Safety Culture Index found that (AAA Foundation for Traffic Safety [AAA] FTS, 2021b):

- » Four out of five drivers (80%) believe that talking on a hand-held cell phone is extremely or very dangerous, yet 37% of them do it anyway.
- » Nearly all drivers (95%) said reading or typing a text or email on a hand-held cell phone while driving is extremely or very dangerous.
- » Despite this, 23% reported typing or sending a text or email on a hand-held cell phone at least once in the past 30 days, and 34% said they read on a hand-held device while driving.

The problem is rampant and proliferated by the growth in cell phone use. Currently, there are 294 million smartphone users in the U.S., representing 85% of American adults (Kolmar, 2022). Drivers spend an average of one hour behind the wheel every day (AAA FTS, 2021a) but another survey found that half of respondents spend five to six hours on their phone every day, not including work use (Cecie, 2022). Another study reported that 40% of smartphone users checked social media while driving, with 70% of those drivers engaged in texting, surfing the internet or video chatting. Nearly two-thirds (62%) indicated they keep their smartphones within easy reach while driving and 22% cited addiction as the reason (AT&T, 2015).

Distracted driving behavior is not arbitrary; drivers want to be connected and there is a lot of pressure to be reachable and responsive wherever they are, any time of day (Lufkin, 2022). A 2015 survey commissioned by the Oregon Department of Safety found that work-related calls — particularly urgent calls — are the leading reason to answer the phone behind the wheel. At the time, the survey found many drivers made conscious decisions not to answer the phone based on who was calling, how important it was or whether it would be unsafe (Oregon Department of Transportation Distracted Driving Task Force, 2017).

A 2021 survey of 1,000 motorists commissioned by Insurance.com revealed the top reasons why drivers text behind the wheel, which included to: report an urgent situation (29%), tell someone they arrived at their destination (21%), reply to a text message (19%) or for work purposes (11%) (Masterson, 2021). None of these reasons excuse a driver putting themselves or other road users in danger, but these trends and experiences have implications for designing a more successful culture change strategy.

KEY FACTS

» The U.S. DOT's focus on distracted driving peaked many years ago and has been overtaken by competing highway safety priorities.

» The recent federal transportation reauthorization allocates more resources to distracted driving and broadens the ability of states to qualify for funding to address the issue.

Laws and Regulations

Traffic laws and regulations help maintain order on the nation's roadways. The rules of the road dictate travel speeds, the maneuvers drivers can make, and where people can and cannot drive. The safety of all road users depends on all motorists complying with these laws. When they fail to do so, crashes and property damage, injuries and deaths may be the result.

Federal Legislation

Currently there is no national law prohibiting drivers from engaging in distracting behaviors while operating a motor vehicle. The exception is a Federal Motor Carrier Safety Administration (FMCSA) ban, instituted in 2010, that prohibits commercial driver license holders from using hand-held phones or texting while driving except in an emergency (Bloch, 2021). Otherwise, passenger vehicle regulation is the domain of states and localities.

The U.S. Department of Transportation's (DOT) focus on distracted driving has ebbed and flowed, competing with risks posed by many other highway safety issues. In 2013 and 2016, NHTSA released incomplete voluntary guidance to advise automotive and consumer product providers about how to minimize the potential for driver distraction resulting from in-vehicle technology and technology brought into the vehicle. At the time, the agency defended the voluntary nature of this guidance by arguing that it did not have direct jurisdiction over consumer electronics, and could not keep up with rapidly changing technology and accurately estimate the benefits and costs of such rules (NHTSA, 2013; NHTSA, 2016).

Currently, NHTSA conducts data analysis and provides materials to support public education and awareness of distracted driving (described in greater detail later in this report). NHTSA also supports research to improve the shared understanding of distracted driving and appropriate countermeasures. Work is also underway on a state of knowledge report scheduled for publication in 2023 and a multidisciplinary committee has been established to investigate how new vehicle technologies can help combat distracted driving.

NHTSA is conducting a pilot in several midsize cities that replicates Missouri's "Buckle Up Phone Down" (BUPD) campaign (see page 31). The agency is also collecting information from SHSOs about their distracted driving projects and innovative ideas and plans to create an inventory of distracted driving best practices and strategies.

Despite the lack of a federal law, Congress has made funding available to states to help combat distracted driving. One source is the State and Community Highway Safety Grant Program, 23 U.S.C.

Section 402, which allows for these funds to be used to reduce crashes caused by unsafe driving behavior, such as distracted driving arising from the use of electronic devices in vehicles.

Congress also established the National Priority Safety Program under 23 U.S.C. Section 405(e) to encourage states to adopt better distracted driving laws and support programs to address the issue. A state that receives funding under the law must use at least half for distracted driving education and enforcement efforts, and at least 25% if it is not compliant with the most recent MMUCC requirements.

The Infrastructure Investment and Jobs Act of 2021 (IIJA) makes changes to Sections 402 and 405(e) that will take effect in FFY 2024 and include:

- » Additional funding for Section 402 and Section 405(e).
- » An automatic allocation of 50% of funding under the Section 402 formula to ensure all states have resources set aside to combat distracted driving.
- » An allocation of the remaining 50% of funding to states that have at least one of three qualifying state laws: a hand-held cell phone ban, a text messaging ban or a novice driver ban. States with secondary enforcement laws will only receive half of their apportionment.
- » Improvements to eligibility requirements to encourage more states to apply for the grant.

State Legislation

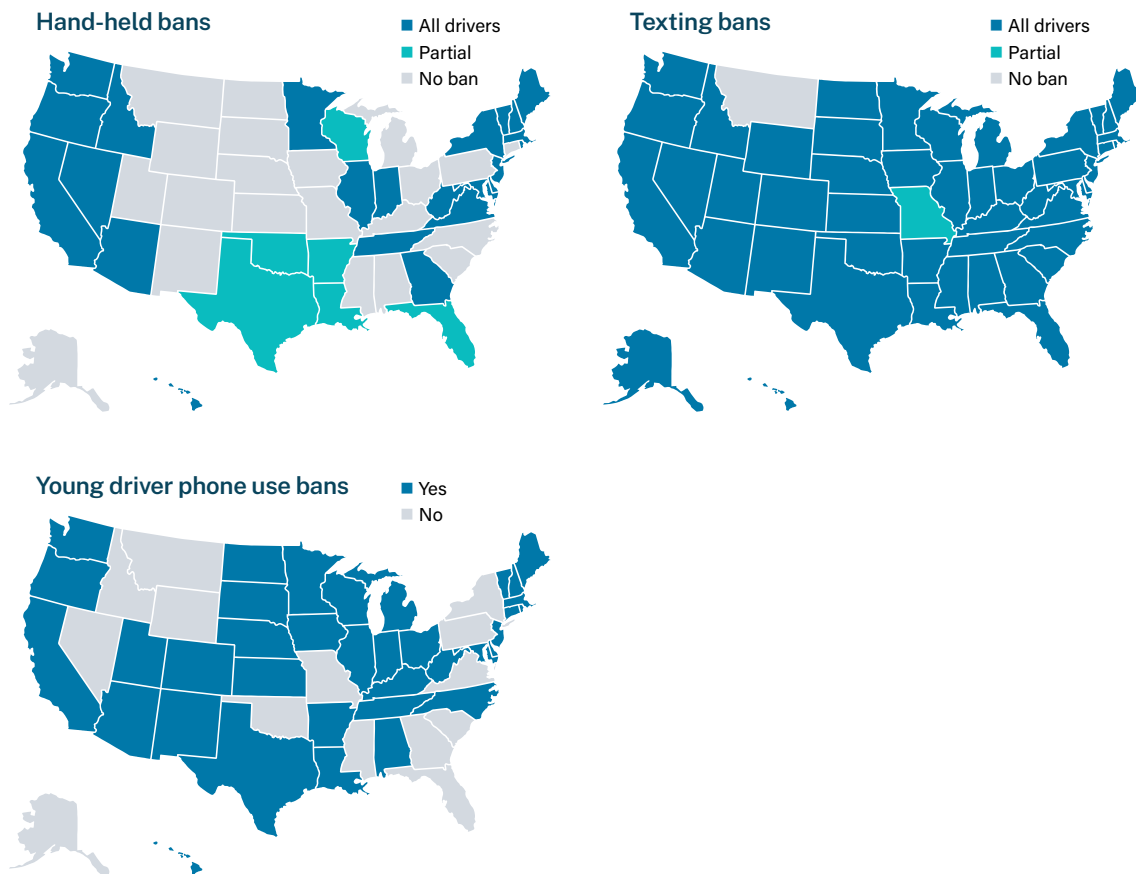
New York's 2001 law banning hand-held cell phone use was the first of its kind in the U.S. Since then, states have approached distracted driving legislation in variety of ways, creating a complex patchwork of rules. As of April 2022, 48 states and the District of Columbia (D.C.) have adopted the most common distracted driving law that bans sending and/or reading a text message while driving (Figure 2). One state bans texting for drivers 21 years of age and younger. Twenty-four states and D.C. prohibit the use of hand-held electronic devices for all drivers on roadways. While most laws pertain to all drivers, some apply only to specific drivers such as school bus and/or commercial driver license holders. Many states have adopted laws prohibiting wireless device use by novice drivers who are under 18 years of age and/or who hold a GDL. Six states have unique partial hand-held bans specific to novice drivers or for anyone driving in school or work zones (IIHS, 2022).

In addition to instituting laws prohibiting smartphone use, many states have adopted laws to limit the number of teen passengers a novice driver holding a GDL may transport. This is the highest ranked distracted driving countermeasure in NHTSA's [Countermeasures That Work](#) publication. Research shows that teens benefit from more focus while behind the wheel and that the presence of teen passengers increases an already higher crash risk by imposing a potent, non-electronic form of distraction. Passenger restrictions are proven to reduce teen driver crashes and injuries (Venkatraman et al., 2021).

The 2021 release of the BTSCRP report, [Using Electronic Devices While Driving: Legislation and Enforcement Implications](#), examined the components of current state and provincial distracted driving legislation and evaluated the benefits and impediments associated with enacting, enforcing

and adjudicating such legislation. The report includes a detailed discussion of the differences between various state laws and offers a ranking of the strength of those laws (NASEM, 2021b).

State distracted driving bans by type



Source: IIHS

Distracted driving laws vary on when they are enforceable. Some may be enforced only when the vehicle is in motion, while others apply regardless of whether the vehicle is in motion or not. State laws also differ on which kinds of wireless devices they apply to with a range of distinct definitions. Most state laws also provide for exceptions, such as contacting emergency services or personnel, hands-free use and/or navigation purposes (NASEM, 2021b).

Most state laws are primary enforcement, meaning that an officer can issue a citation for a direct offense. Three states' text messaging bans are secondary enforcement, meaning that an officer can only initiate a traffic stop or issue a citation if the driver has committed a separate primary offense, such as speeding or running a red light. Secondary offenses impede distracted driving enforcement and send a message to both officers and drivers that the law is not a priority. A 2019 survey of law enforcement in Ohio found that officers overwhelmingly support primary enforcement of a distracted driving law (94%) with over 80% indicating secondary enforcement was an obstacle (Shoots-Reinhard et al., 2019).

Fines vary among states and jurisdictions. Some state laws do not mandate a fine while others include a range of up to \$200 for a first offense. States consulted in the 2021 BTSCR study indicated that penalties and fines should remain consistent with those for other traffic safety citations. Some states have an incremental system of fines and penalties and several states have increased penalties when a crash caused by a driver using a cell phone resulted in an injury or death (NASEM, 2021b). In addition, lower fines may not reflect a state's commitment to distracted driving but rather the socioeconomic makeup of its drivers and their ability to pay the fine.

To determine the most recent status of cell phone laws in the U.S., the National Conference of State Legislatures (NCSL) has an [interactive chart](#) that tracks these laws by state and ban type, as shown below.

State Cell Phone and Texting Bans as of April 2022

All cell phone ban: novice drivers	20
All cell phone ban: school bus drivers	19
All cell phone ban: teen drivers	25
All cell phone ban: transit/passenger bus drivers	2
Hand-held ban: all drivers and all zones	25
Hand-held ban: novice drivers	2
Hand-held ban: school and work zones	2
Hand-held ban: school bus drivers	3
Hand-held ban: school zones	2
Hand-held ban: teen drivers	2
Hand-held ban: transit/passenger bus drivers	1
Hand-held ban: work zones	1
No laws banning cell phone use while driving	1
Texting ban: all drivers — primary enforcement	47
Texting ban: all drivers — secondary enforcement	2
Texting ban: teen drivers	1



Source: NCSL

Though some municipal jurisdictions have adopted their own distracted driving ordinances, traffic laws are mostly governed on the state level (Automotive Fleet, 2019). At least ten states have preemption laws specifically prohibiting local jurisdictions from enacting their own distracted driving bans (GHSA, 2022).

Experts have not reached consensus on the efficacy of distracted driving laws. While these laws appear to have traffic safety value, substantiating this has been difficult and study results have been mixed. Most, though not all, of these studies found that hand-held cell phone bans positively impact safety. On the other hand, studies of text messaging bans have yielded mixed results. Researchers have compared crash and observational data, self-reported behavior and other metrics among states with distracted driving laws before and after these laws took effect. However, evaluations of the effectiveness of these laws are challenged by the fundamental barriers to obtaining accurate distracted driving data, along with the different methodologies that are used and the difficulty of effectively controlling for other factors that impact traffic safety (McCartt et al., 2014).

Researchers have also queried insurance data to measure the impact of distracted driving laws, but this too has yielded mixed results. Earlier analyses by IIHS found that collision claims either did not change or increased with enactment of hand-held phone and texting bans (IIHS, 2021). Two more recent studies found that distracted driving laws have a significant effect on reducing injury liability claims and physical damage losses, resulting in savings to the insurance industry and lower insurance premiums for customers (Bloch, 2021).

Regardless, public support for distracted driving laws — most notably restrictions on hand-held phone use — is strong. According to the 2020 AAA Traffic Safety Culture Index, more than 80% of drivers supported a law banning talking on a hand-held cell phone. But this support drops to 45% when it comes to banning the use of hands-free technology to read, type or send a text message or email while driving (AAA FTS, 2021b).

The inconclusive research underscores the need for more information on the impact of distracted driving laws. The 2021 BTSCR report identifies several research needs that include (NASEM, 2021b):

- » Understanding the effectiveness of hands-free laws in preventing distracted driving crashes.
- » Evaluating the effectiveness of electronic device use laws with respect to fines and penalties.
- » Evaluating the effectiveness of outreach and education efforts on electronic device use laws.
- » Examining the effectiveness of using crash, citation and observational data to identify key audiences.
- » Evaluating approaches other than legislation to reduce distracted driving.

Law Enforcement

Enacting a state law is the first step; it must be enforced to provide its full benefit.

Traffic laws set social norms and empower law enforcement to act on dangerous driving when they observe it. In the case of wireless device use behind the wheel, distracted driving laws convey to police that these behaviors are dangerous and actionable. These laws can also have a deterrent effect; if a driver believes they may be stopped and face sanctions, they may elect not to engage in a distracting behavior. The AAA 2020 Traffic Safety Culture Index found that drivers perceived they were more likely to be stopped by a police officer for talking on a hand-held cell phone (42%) or typing a text/email (43%) than while reading a text or email (32%) (AAA FTS, 2021b).

Research has validated the positive safety impact of high visibility enforcement of distracted driving laws, which combines public outreach with focused traffic enforcement. NHTSA evaluated two demonstration projects that both resulted in modest reductions in observed hand-held cell phone use, though researchers warn that reductions may be due to other factors (Chaudhary et al., 2014). All states conduct HVE initiatives, which is one of the highest ranked distracted driving countermeasures in NHTSA's [Countermeasures That Work](#) (Venkatraman et al., 2021), but they are resource-intensive and difficult to sustain.



KEY FACTS

- » Police officials cite many challenges to enforcing distracted driving laws.
- » Traffic enforcement provides highway safety benefits and HVE campaigns are a proven countermeasure.
- » Distracted driving laws and enforcement are increasingly being considered through the context of equity in highway safety.

Enforcing distracted driving laws presents challenges for police officers, which must observe the offense before they can cite the offender. Many distracted driving behaviors are difficult to observe or objectively identify and an officer may only have time for a fleeting glance into the vehicle as it moves by. A 2018 focus group study among West Virginia law enforcement found that police have many competing public safety priorities and do not want to carry out enforcement that may further damage their relationship with the public (Rudisill et al., 2019). Officers spoke positively about how SHSO grants provide additional time, funding and personnel, though they were concerned about being required to produce tickets for one particular offense. Other key concerns shared by law enforcement included:

- » The inability to always see the relevant driver activity or upon observation not being able to discern between different activities that may or may not be legal.
- » Distracted driving laws are often poorly written and difficult for officers and drivers to understand. The laws may have exceptions that make it difficult to decide when to act and provide a legal “out” for a potential offender.
- » The perception that the judicial system is skeptical about distracted driving enforcement. Police may write tickets, but they could ultimately be dismissed.
- » Difficulty determining the age of the driver when attempting to enforce novice driver cell phone bans.
- » Legal exemptions for emergency responders, including police enforcing the law, create public perceptions of a double standard.
- » Distracted driving is pervasive and habitual, and drivers do not recognize the risk, a public perception supported by research.
- » Low fines do not create deterrence.

Officers looking to overcome the limits of observation by directly examining a driver’s device for evidence face considerable hurdles. The U.S. Supreme Court ruled in 2014 in the case of [Riley v. California](#) that police need a warrant to search the contents of a suspect’s cell phone. An officer must secure a driver’s consent or go through the process of obtaining a warrant from a judge, which is time-consuming and requires evidence. Officers typically do not pursue warrants and they are not typically granted, except in cases of fatal or serious injury crashes, when a driver flees the scene or when there are other highly egregious circumstances (Greenfield, 2017).

Concerns about the over-policing of people of color in the U.S. raises additional issues for distracted driving enforcement. To address this, Massachusetts' hands-free law requires law enforcement to note the age, race and gender of individuals issued a warning or citation. This information is made publicly available and, if a jurisdiction is found to be engaged in racial or gender profiling, they must complete implicit bias training (Massachusetts Governor's Press Office, 2019). A 2021 analysis of these data found that drivers identified by police officers as white were more likely to receive a warning than people of color. White drivers were cited 30% of the time, while Latino and Black drivers received citations 40% of the time and Asian drivers 44% of the time (Beaudet, 2021). Actions to reduce disparities in distracted driving enforcement are discussed later in this report.

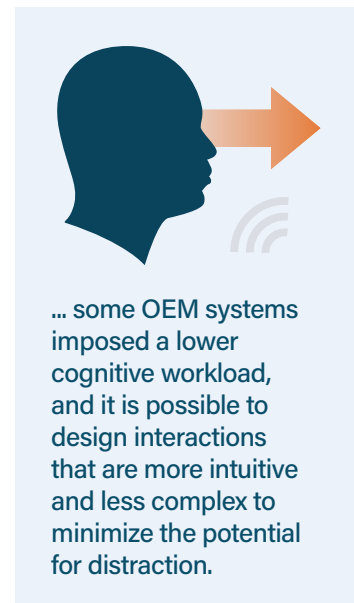
Vehicle and Wireless Technology

Industry efforts to address distracted driving have produced benefits, but also introduced new challenges. On one hand, original equipment manufacturers (OEMs) are providing vehicles with helpful technologies such as ADAS (driver monitoring systems, lane departure warnings and lane keeping assist). Vehicles commonly include capabilities that offer hands-free, voice command features and dynamic touchscreen dashboard displays that lock while a vehicle is in motion. Hands-free and push-button functionality can provide a way for drivers to avoid texting while driving and holding their phones in their hand.

However, according to Consumer Reports, automakers are also investing in infotainment systems to distinguish their vehicles from the competition. This has led to flashier, more complex and potentially more attention-demanding systems that could give drivers a false sense of security (Zipper, 2021).

AAA has evaluated a range of in-vehicle features and found they can impose cognitive distractions. That is because it often takes more time and attention to place a call or change a radio station with voice-command and touch screen than to simply turn a knob or push a button (AAA, 2021). However, AAA research has also shown that some OEM systems imposed a lower cognitive workload, and it is possible to design voice interactions that are more intuitive and less complex to minimize the potential for distraction (Strayer et al., 2014).

Another major trend is the advent of automated vehicle technology. While vehicle automation, particularly at higher levels, has promising potential to reduce crashes, highway safety advocates are increasingly concerned that technologies at Levels 2 and 3 create the potential for driver inattention (see the graphic on the next page). The concern is that drivers may be complacent about the critical role they play in monitoring the driving task and not prepared to re-engage. During the early days of its self-driving car project, Google ceased testing Level 3 vehicles and instead focused on full automation because some drivers fell asleep during testing (Ayre, 2017).



KEY FACTS

- » The auto and wireless industries have provided consumers with technology that can mitigate distraction, but some technologies may also facilitate it.
- » Hands-free interactions can pose the risk of cognitive distraction but can also be designed to reduce this risk.
- » Automated vehicle technology may be introducing new forms of driver inattention.

AV Terminology and Levels

				Automated Driving Systems (ADS)		
	Level 0 No Automation	Level 1 Driver assistance	Level 2 Partial automation	Level 3 Limited self-driving (conditional automation)	Level 4 Full self-driving under certain conditions (high automation)	Level 5 Full self-driving under all conditions (full automation)
Vehicle	No automation.	Can assist driver in some situations.	Can take control of speed and lane position in certain conditions.	Can be in full control in certain conditions and will inform the driver to take control.	Can be in full control for the entire trip in these conditions and can operate without a driver.	Can operate without a human driver and need not have human occupants.
Driver	 In complete control at all times.	 Must monitor, engage controls, and be ready to take over control quickly at any moment.	 Must monitor and be ready to take over control quickly at any moment.	 Must be ready to take control quickly when informed.	 Not needed	 Not needed

Source: Hedlund, 2019

Studies on how drivers use ADAS features have yielded mixed results. An AAA FTS study reviewed two Level 2 naturalistic driving studies to evaluate how motorists currently use the ADAS in their vehicles. The study found ADAS features that manage aspects of the driving task may result in driver complacency and inattention (Dunn, Dingus & Socolich, 2019). However, a University of Michigan Transportation Research Institute study of police reports found no evidence of a difference in lane departure or rear-end striking crash risk for Super Cruise-equipped vehicles compared to matched highly-ADAS equipped vehicles without Super Cruise (Leslie et al., 2022).

Tesla's Full Self-Driving mode, a Level 2 feature, allows limited self-driving in certain conditions, but Tesla operators have posted videos of themselves abusing the system (Robarts, 2021). A 2021 Massachusetts Institute of Technology study found that Tesla drivers looked at the road less when using Autopilot (Dean, 2021). Other automakers have begun offering driver monitoring cameras and other non-camera methods to detect driver distraction. For example, since GM's Model Year 2018 introduction of Super Cruise, this hands-free system may only be used on compatible GPS-defined roads. The technology uses a series of escalating alerts to prompt the driver to pay close attention

to the road ahead (monitored by a face camera) and to take steering control when takeover requests are issued. However, limited independent evaluations of driver monitoring features have yielded mixed results (Barry, 2021). As automated vehicle technology becomes more prevalent, so might new forms of driver distraction associated with this technology.

The SHSOs are authorized to implement behavioral safety countermeasures and can focus on actions that individual drivers can take to improve their safety. This includes encouraging motorists to learn how their vehicles' ADAS works, so they understand the benefits and limitations of this technology. While a more detailed discussion of the complex areas of vehicle engineering are beyond the scope of this report, vehicle design and related regulations may provide opportunities to further reduce distracted driving.

Challenges Addressing Distracted Driving

To inform this report, GHSA surveyed SHSOs in December 2021 to identify innovative and best practices in addressing distracted driving, as well as barriers to implementing distracted driving programs. According to the SHSOs, the top three challenges to effectively addressing distracted driving include:

1. The disconnect between driver attitudes about the danger of driving distracted and their actual behavior.
2. Difficulty enforcing distracted driving laws.
3. Inadequate penalties or non-existent distracted driving laws.

Other impediments identified by the SHSOs included:

- » Lack of distracted driving data.
- » Competing highway safety priorities.
- » Lack of funding and restrictions on the use of federal grant funds.
- » Lack of tools and resources, leadership and partner support.

Despite these challenges, SHSOs and their partners are identifying and implementing strategies to combat distracted driving. The remainder of this report focuses on what SHSOs can and are doing to address the challenges identified above. In addition, promising practices are highlighted along with recommendations that SHSOs are encouraged to implement.

KEY FACT

» The majority of SHSOs feel that a poor traffic safety culture, weak distracted driving laws and difficulty enforcing laws are the top distracted driving challenges.

Distracted Driving Laws

Slightly more than half of SHSOs (54%) indicated that their state's distracted driving law is inadequate and needs strengthening. Enacting a hands-free law or increasing monetary penalties to deter drivers from driving distracted were the most prevalent recommendations.

What States Can Do

Federal law prohibits SHSOs from using federal funds to actively lobby, but they can engage in advocacy activities to support the issue of distracted driving, including GDL provisions that aim to limit teen driver distractions. SHSOs can promote the effectiveness of current distracted driving laws and programmatic efforts to curb dangerous driving behavior. In some states, SHSOs are called upon to analyze legislative proposals, provide expert testimony or respond to inquiries for information from elected officials. SHSOs can provide legislators with easy-to-understand data about the extent of the distracted driving problem (i.e., crashes, injuries and fatalities) and the associated costs, as well as impediments to enforcement of current laws. SHSOs may also partner with other entities that are not encumbered by the same lobbying restrictions. After legislation is enacted, SHSOs can develop outreach materials to educate the public about the new law, as well as the role both drivers and passengers play in reducing distracted driving.

The BTSCRP report, [Using Electronic Devices While Driving: Legislation and Enforcement Implications](#), discussed earlier, provides resources to states seeking to pass legislation that includes model language; a presentation highlighting successful strategies, protocols and procedures for drafting and enacting legislation; and a document for legislators that highlights the importance of legislation and the components of a strong law. Once a state passes legislation, SHSOs and their partners can leverage the sample news release to announce the new or amended law. It also provides messaging guidelines and suggested media channels for conducting public outreach (NASEM, 2022b).

Survivor Advocates

All traffic fatalities and serious injuries are more than just numbers. Behind every statistic is a human being with a compelling story that can help underscore the seriousness of the problem. Survivor advocates — constituents who lost loved ones in distracted driving crashes — can provide powerful testimony about the dangers of not paying attention behind the wheel. States are encouraged to work with survivor advocates to put a face on the distracted driving issue. Here are several that have established relationships with SHSOs:

- » [StopDistractions.org](#) was established by Jennifer Smith after her mother was struck and killed by a driver talking on their cell phone. The grassroots nonprofit is dedicated to eliminating the devastation that results when a loved one is killed or injured in a distracted driving crash. It brings together victims, survivor advocates, foundations and the public to build awareness and recognition that distracted driving is reckless. A key focus is advocating for state laws that encompass all aspects of distracted driving. The organization tracks legislation passed by the states along with fatality data to measure success and is working to identify methodologies to collect better and more complete distracted driving data.
- » [The Kiefer Foundation](#)'s mission is to end distracted driving and all associated traffic deaths and injuries based on three pillars: awareness, policy and technology. In 2016, Mitchel Kiefer

was tragically killed in a crash caused by a distracted driver who crossed the center median. One of the foundation's first actions was to partner with the Michigan DOT to split the costs for installing median cable barriers in the area where the crash occurred, a proven countermeasure for preventing cross-over crashes. The foundation also uses the simple message of "Just Drive" to encourage drivers to make safe operation of their vehicle their only focus when behind the wheel.

» [EndDD.org](https://enddd.org) (End Distracted Driving), a campaign of the Casey Feldman Foundation, was created by Joel and Dianne Feldman after a distracted driver struck and killed their daughter, Casey, while she was crossing the street in a crosswalk. The program's free, science-based presentations are delivered to schools and businesses by a network of more than 200 volunteers, including Joel, who has personally given over 700 presentations in the U.S. and Canada. In addition, the foundation has developed a first-of-its-kind distracted driving lesson plan for elementary school students.

Recommendations for SHSOs:

- ✓ Implement GDL restrictions to limit the number of teen passengers a novice driver may transport.
- ✓ Educate legislators about the impact of distracted driving by providing data analysis that includes not only the number of crashes, injuries and fatalities, but also the associated costs, demographics and roadway users most affected.
- ✓ Work with non-SHSO partners to implement distracted driving education programs, address funding issues and coordinate on legislative initiatives.
- ✓ Educate the public about distracted driving laws and the important role they play in reducing this risky behavior.
- ✓ Collaborate with survivor advocates to put a face on the distracted driving problem.

Data Collection and Analysis

Much of our understanding of the role distracted driving plays in crashes comes from data collected by law enforcement when investigating crashes and recording that data on crash forms. The collection of this data can be challenging due to the underreporting of distracted driving by those involved in the crash and wireless device use in particular.

Officers may not always be able to tell that distraction was a factor in a crash. There is often no physical evidence, there may be no witnesses and at-fault drivers may be reluctant to admit to this behavior. The collection of digital evidence from a wireless device or from telecommunications records involves special considerations and procedures, as discussed earlier in this report.

When an officer prepares to document the role of distraction in a crash, the forms used in many states have several fields for distracted or inattentive driving, while others have only one overarching field. Because it is often difficult to verify cell phone use at the scene of a crash, law enforcement may sometimes simply characterize the crash under a more general category such as distracted or inattentive driving, which obscures the more specific contributing factors (NASEM, 2021b).

Fifty-four percent of SHSOs responding to the GHSA survey indicated receiving funding in the past five years to support the collection and analysis of distracted driving data. A majority of SHSOs rely on crash reporting and citation data to determine the extent of the distracted driving problem and where it is most prevalent. Survey participants also described a range of approaches to collecting and analyzing distracted driving data, including:

- » Analyzing and reporting increases and decreases in distracted driving crashes (Missouri and Minnesota).
- » Reviewing annual fatality and serious injury data and citations and conducting annual observation surveys (Washington).
- » Collecting and analyzing enforcement statistics and paid media outreach to make program changes or continue support for successful projects (Delaware).
- » Using a logistical regression model to estimate cell phone related distractions (talking and typing) to better understand the relationship between the rate of driver distraction and the presence of enforcement and safety messages (Michigan).
- » Reviewing pre-and post-observational, demographic, crash and location data, and the five-year average of distracted driving fatalities (Connecticut).
- » Conducting observational surveys using video cameras to record driver behaviors and identify features and characteristics of roadways that may encourage drivers to reduce their focus on the task of driving (New Jersey).

SHSOs use data to identify key audiences and appropriate messages, effective messengers and the best delivery channels to reach these high-risk drivers. Sixty-two percent of SHSOs indicated they conduct distracted driving research, and over half did so by reviewing and analyzing crash data. However, the distracted driving data collected is often sparse or does not fully capture the extent of the problem, which can negatively impact programming, evaluation and research.

What States Can Do

Crash Data

To assess the magnitude of distracted driving, it is critical to collect the necessary data to determine if distraction is the primary cause of a crash. The MMUCC 5th edition recommends distracted driving action and Source Attribute Values that should be recorded in crash reports (NHTSA, 2022b).

KEY FACTS

- » The majority of SHSOs use funding to support the collection and analysis of distracted driving data.
- » Data collected is sparse or does not capture the full extent of the problem.
- » States can improve distracted driving data by adopting the latest edition of the MMUCC.
- » Observational distracted driving surveys are valuable tools to measure many aspects of the issue.

At a minimum, the following information should be collected for each attribute value:

- » **Action** — Not distracted, talking/listening, manually operating (texting, dialing, playing game, etc.), other action (looking away from task, etc.), unknown
- » **Source** — Hands-free mobile phone, hand-held mobile phone, other electronic device, vehicle-integrated device, passenger/other non-motorist, external (to vehicle/non-motorist area), other distraction (animal, food, grooming), not applicable (not distracted), unknown

The current edition of the MMUCC was published in 2017 and the 6th edition is being developed. According to the agency, overall state MMUCC alignment is less than 50% as of April 2022 (NHTSA, 2022c). A detailed discussion of barriers to widespread state adoption of the full MMUCC is beyond the scope of this report but states face many challenges related to leadership, costs, logistics and the increasing role of technology.

Observational Data

Observational surveys are a constructive method to identify who is most likely to drive distracted, especially when collected with other information pertinent for highway safety planning such as roadway type, time of day and day of the week. SHSOs can use this information to develop education and outreach materials, partner with law enforcement to fund equitable HVE activities and track the effectiveness of these countermeasures.

Many SHSOs indicated they have conducted observational surveys to collect distracted driving data and establish a baseline which can be tracked over time. States are required to collect certain data for annual observational seat belt surveys, such as demographic, vehicle type and location. The same can be done for distracted driving. Methods states can use include:

- » **During states' required annual statewide observational seat belt use survey.** Adding "observed hand-held cell phone use" to the data collection form or device used by the individual conducting the seat belt survey is a simple and cost-efficient way to obtain information about the extent of the distracted driving problem, as well as who is doing it, in what type of vehicle and where.
- » **A standalone distracted driving survey** like the observational seat belt survey. This can be conducted annually or every few years and allows for additional data points to be captured such as the driver's gender, age, vehicle type, electronic device used and type of distraction (e.g., eating, reading, grooming, texting). Additionally, the survey can be community-specific or conducted statewide.

- » **Volunteer or grantee-based data collection.** These pre-and post-surveys are typically conducted at the community level, often by high school students and/or law enforcement, who observe distracted driving on roadways near schools. The data are used to gauge the effectiveness of education programs on conveying information and promoting behavior change.

To achieve statistically significant and viable results, states are encouraged to work with a researcher with survey expertise that can provide guidance on conducting distracted driving observational and attitudinal surveys. For attitudinal surveys, this includes guidance on the demographic groups to survey and the best survey method to use with each group.

A novel source of more naturalistic distracted driving information is the corporate sector. Some insurance and technology companies have begun collecting distracted driving data directly from drivers. The information they gather on the frequency, type and duration of different electronic distractions may provide helpful perspective on the distracted driving problem in any given state. These potential partnerships are discussed in greater detail later in this report.

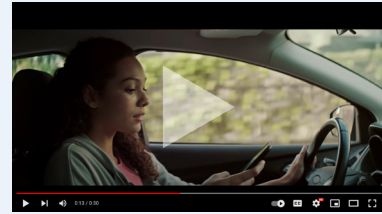
Recommendations for SHSOs:

- ✓ Collect state level distracted driving data and tailor countermeasures to address specific state needs.
- ✓ Work with the TRCC to include the MMUCC 5th edition distracted driving action and Source Attribute Values on the state crash report. Train law enforcement on the importance of collecting this data and provide officers guidance on recording each attribute value.
- ✓ Expand distracted driving data analysis beyond crash and citation data and enforcement-related output measures to include items such as frequency, type and duration of distractions, which may be gathered by corporate partners.
- ✓ Conduct pre-and post-observational surveys to evaluate the impact of distracted driving programs and enforcement efforts, as well as measure the magnitude of the distracted driving problem.
- ✓ Conduct an observational survey, paired with a telephone attitudinal survey, to better understand who is more likely to drive distracted and driver attitudes about the behavior.

Changing Attitudes About Distracted Driving

Research indicates that most people view distracted driving as dangerous, and many profess to support distracted driving laws. Yet distracted driving remains widespread. Safety advocates and all levels of government are working to tackle this challenge and change the culture.

At the federal level, NHTSA has implemented campaigns to raise awareness of the dangers of distracted driving. The agency provides turnkey public education materials on distracted driving such as banner ads, sample press releases, presentations, posters, print ads, social media materials, Spanish-language materials and more. States and others use these resources to support national mobilizations in partnership with the SHSOs. The annual "[U Drive. U Text. U Pay.](#)" campaign began in April 2014 in conjunction with National Distracted Driving Awareness Month. Another campaign, "[One Text or Call Could Wreck It All](#)," focuses on social norming. In April 2022, NHTSA collaborated with SHSOs and law enforcement agencies across the U.S. to conduct a four-hour distracted driving enforcement and awareness initiative called "[Connect 2 Disconnect](#)" (C2D). The purpose of the C2D campaign was to reaffirm that distracted driving laws are enforced to prevent deaths and serious injuries caused by this dangerous behavior. NHTSA also offers "evergreen" traffic safety marketing collateral on distracted driving in general (NHTSA, 2022a).



Watch a video developed by NHTSA for the "U Drive. U Text. U Pay." campaign.

The CDC also has developed distracted driving information as a component of its "[Parents Are the Key](#)" campaign, which makes resources available to parents, pediatricians and community groups to help keep teen drivers safe.

What States Can Do

As with the decades-long fight against drunk driving, it is imperative that the highway safety community, led by the SHSOs, establish distracted driving as socially unacceptable. Of the 26 SHSOs that responded to the GHSA survey, all indicated they were responsible for leading the statewide effort to address distracted driving. Of these SHSOs, 56% have dedicated staff members tasked with managing the program or task force.

States that conduct distracted driving observational surveys can use the findings to identify who is most likely to drive distracted and develop and disseminate messages through audience-appropriate media channels, outreach events and other tactics. Education and outreach also should encourage the drivers' family members and friends to speak up when a driver appears distracted. States can encourage drivers and their family members to take a further step by using tools such as "do not disturb" features on apps and devices to block cell phone disruptions while driving.

Education and Media Campaigns

Changing the culture of distracted driving requires ongoing and consistent messaging that resonates with key audiences. SHSOs are using federal and/or state funding to develop and implement education and public outreach campaigns, often in conjunction with highly visible traffic enforcement. Together they are a proven strategy for addressing distracted driving and other high-risk driving behaviors. Evaluation of SHSO efforts is critical and should measure impact as well as whether the message is reaching the intended audience.

Examples of SHSO and partner initiatives include:



» **Idaho** rebranded their Toward Zero Deaths campaign to "[Shift Idaho](#)," urging a commitment to refrain from engaging in unsafe behaviors such as distracted driving. Fatal crashes in Idaho decreased in recent years except on Highway 20. To address this, the Idaho DOT formed a task force to review the roadway and current safety measures. They developed a campaign based on the Positive Culture Framework, which promotes health and safety by building on shared values, beliefs and attitudes. The campaign is directed to both locals and tourists traveling on Highway 20 and features an engaging message and mascot, Stanley Sasquatch (above), a light-hearted, clever and memorable symbol, widely recognized across the state. A variety of tactics are used to reach drivers including social media, outdoor advertising and appearances at community events to generate excitement and interest in the initiative.



» For National Distracted Driving Awareness Month, the **Colorado** DOT set up a safety display at a busy marketplace to look like the front seat of a car. When people stopped and looked through the windshield, instead of seeing the road, they saw real people negatively impacted by distracted drivers. In addition to the display, CDOT distributed statewide coffee sleeves and window clings with QR codes. These linked to a video (above) of Coloradans describing the impact distracted driving had on their lives and encouraged drivers to rethink their driving behaviors. Partner organizations and individuals were also invited to share educational materials they developed through their own communications channels.

» In **Connecticut**, the "[Save a Life Tour](#)" visits 60-80 high schools annually to educate young drivers about the dangers of distracted driving. The tour uses speakers, high intensity videos, interactive demonstrations and simulators to illustrate the effect that poor choices made by drivers can have on them, their passengers and other roadway users. Students are surveyed prior to and after participating in the tour to assess their understanding of distracted driving. They are also asked to sign a pledge and the school is provided a banner to be displayed at event completion to reinforce the tour's critical messages.





- » AAA **Washington state** partnered with Studio East to develop a live theater production of "[The Little Engine That Could](#)," tailored to children three to 10 years of age as an early education prevention program about distracted driving. In response to the pandemic, the musical was streamed instead of presented in person. The program teaches children to recognize that this is a high-risk driving behavior and coaches them on how to respond when they see a parent or caregiver engaged in a distracting behavior.



- » The **Oregon** DOT developed a [Distracted Driving Avoidance Course](#) (DDAC) which may be required of drivers who receive a distracted driving citation. Judges have a list of approved providers and, at their discretion, may waive the fine if the cited driver completes an approved DDAC. It may only be taken following a first conviction for driving a motor vehicle while using a mobile electronic device and participants must score at least 80% to pass the 90-minute course. DDAC is not a diversion program since the violation is not removed from the driver's record.



- » Since 2014, the **Washington Traffic Safety Commission** (WTSC) has conducted HVE campaigns to reduce distracted driving as part of the state's "[Target Zero](#)" initiative. To reach Washington's diverse population, campaign materials are conveyed in both English and Spanish, and social media messages are translated into seven languages: English, Spanish, Chinese (simplified and traditional), Vietnamese, Korean and Russian.



- » The **Casey Feldman Foundation** has developed the free [Kids Speak Up for Safety](#) program designed for young students. These lessons aim to set cultural norms early before students get behind the wheel. One component is to encourage children to speak up by using "I" and "you" statements when they see an adult engaging in distracting behavior behind the wheel. For example, "Mom and Dad, I love you, but I don't feel safe when you drive and look at your phone." This technique refocuses attention on how the passenger feels instead of blaming the driver.

PROMISING PRACTICE ★

» Missouri's Buckle Up Phone Down

With fatalities on the rise, the Missouri DOT (MoDOT) took a two-pronged approach to address a weak anti-texting law and secondary seat belt law. Launched in 2017, the "[Buckle Up Phone Down](#)" (BUPD) campaign promotes personal responsibility and is intended to bring about positive change in personal behavior and roadway safety.



The campaign encourages individuals to pledge to fasten their seat belt — whether a driver or passenger — and put their cell phone down when driving. Missouri businesses are also challenged to adopt policies requiring employees to wear seat belts and not use cellphones while in company vehicles. One clever way of spreading the message encourages participants to pose with "dueling thumbs" — one thumb up for "buckle up" and one thumb down for "put your phone down" — and post the photos on the BUPD website.

Champions from across the state are engaged in grassroots efforts to build community support for BUPD. A downloadable starter kit is available to help with this effort and the Missouri Coalition for Roadway Safety disseminates messages through media channels across the state.

MoDOT has adopted two quantifiable metrics of campaign success: public awareness of the message and improvement in driver behavior. A 2020 survey of individuals who took the BUPD pledge found that 96% reported either never using a phone while driving or using a hands-free device only. While distracted driving is widely under-reported in traffic crashes, distracted driving fatalities in Missouri declined from 102 in 2015 to 82 in 2020 (MoDOT, 2022).

Vehicle Technology Education

While safety advocates and the automotive and cellular industries work towards the safer design of vehicles, wireless devices and other consumer products, progress can also be made by informing drivers how to safely use these items and minimize their potential for distraction. Customers want both convenience and safety, which technology can provide. The challenge is ensuring the former does not impede the latter. AAA, a national leader in driver education, reminds motorists that technology fails regularly, and advises them when purchasing a new vehicle or renting an unfamiliar one, to (Shar, 2019):

- » Always remain active and engaged when using ADAS technologies like lane keeping assist or adaptive cruise control.
- » Commit to knowing what ADAS technologies are installed in your vehicle and how they work.
- » Expect that the ADAS technologies in your vehicle have limitations.

The WTSC sought to address driver awareness of the dangers of distraction when using ADAS, such as adaptive cruise control and lane keeping assist. These important technologies can help reduce the number of crashes. When drivers become comfortable with this technology; however, they reduce their attention on the road, which can lead to crashes. Educating drivers about the correct use of ADAS can help increase safe driving behaviors and encourage drivers to stay focused on the road even when these technologies are in use.

The IIJA introduces a new provision authorizing SHSOs to use Section 402 funding to implement programs “to reduce crashes caused by driver misuse or misunderstanding of new vehicle technology.” While it may be challenging to justify large expenditures of federal funding based on crash data, SHSOs may be able to partner with automotive and technology providers to develop new programs.

SHSOs may also want to explore opportunities to partner with insurance providers and others that are collecting distracted driving data. Insurance companies have developed apps to detect actions such as hard braking and swerving, which could be the result of distracted driving. These apps provide feedback to the driver and/or reward policy holders who drive safely.

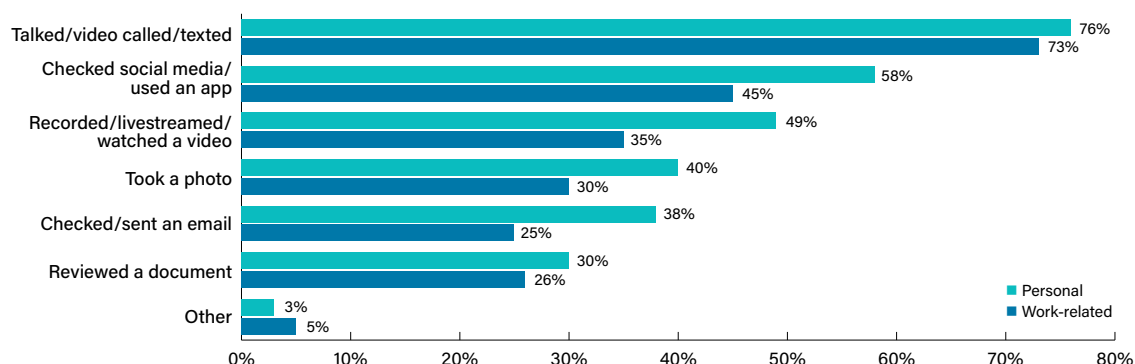
There is also an emerging trend for integrating rewards with phone apps that promote safe driving habits. Drivers who refrain from using their phones while the vehicle is in motion are rewarded with discounts at businesses or gift cards that increase in value the more they drive while not utilizing their phone. SHSOs may also be able to receive distracted driving data insights from these apps to provide yet another data point for tracking the prevalence, duration, frequency and location of phone use while driving.

Employer Education

Motor vehicle crashes are a leading cause of work-related deaths. According to an analysis conducted for the Network of Employers for Traffic Safety (NETS), more than 1,800 people were killed and 379,000 injured in motor vehicle crashes while on the job in 2018 (Miller & McKnight, 2019). Although it is unknown how many of these deaths and injuries were the result of a distracted driver, employers play a critical role in addressing this problem. Earlier, this report discussed self-reported reasons why drivers use wireless devices behind the wheel, and work should be included among them as a leading factor.

A March 2022 Harris poll, [Distracted Driving in America](#), commissioned by Advocates for Highway and Auto Safety and Selective Insurance, examined mobile device use while driving. It found that 70% of licensed drivers indicated they used a mobile device for personal reasons while driving in the past 90 days. But among those whose jobs include driving the rate is even higher, with 86% reporting using a mobile device (see below).

Reported Behaviors When Driving — Personal vs. Work



Source: Harris Poll

Base: Employees whose job requires them to drive at least sometimes (n=448)

A 2017 study commissioned by Travelers Insurance found that more than one-third of its employees (38%) felt pressured to always be available for work-related matters. The explanations given were fear they would miss something important (37%), upsetting their boss if they did not answer a call (17%) and the inability to mentally shut off from work (15%). All these reasons could prompt employees to not only take calls while behind the wheel, but also check and respond to emails and text messages (Travelers, 2017).

Employers can be empowered to reverse this culture. Rather than demanding availability and responsiveness that could lead to a crash, companies and organizations should adopt and enforce policies that expressly prohibit employees from making and/or taking calls and engaging in other distracting behaviors while driving on the job. Companies that implemented a total ban on cell phone use while driving saw positive gains, according to research conducted by the NSC. Only 7% said productivity decreased, while 19% thought productivity had increased (NSC, 2015). This finding, along with distracted driving's impact on the bottom line, could help motivate businesses to invest in education and policy initiatives. Employers need to know that traffic crashes are costly. In 2019, distracted driving crashes alone cost employers \$18.8 billion in health care and other employee-related costs (Miller & McKnight, 2019).

\$18.8B

The amount distracted driving crashes cost employers in 2019. This finding could help motivate businesses to invest in education and policy initiatives.

SHSOs can partner with employers on prevention initiatives and educate them on the costs and reasons employees drive distracted. SHSOs can develop distracted driving toolkits that companies can leverage with their employees and their family members.

PROMISING PRACTICE ★

» Washington State Distracted Driving Workplace Toolkit

The WTSC conducted a survey of companies in 2019 that revealed that only 30% of respondents reported having a distracted driving policy at their workplace. The WTSC saw this as an opportunity to create a workplace toolkit for those with an ineffective policy or no policy at all. The toolkit helps businesses shape their organization's culture so that the policy, expectations and practice are aligned. It outlines four steps to improve employee safety: understand how distracted driving impacts the workplace, implement a policy, conduct training, and begin and sustain a dialogue with employees to promote a culture of safety that includes focused driving. Businesses can access the policy toolkit online at [DriveFocusedatWork.com](https://www.drivefocusedatwork.com).

Evaluate Education and Media Campaigns

Research shows that the general effectiveness of current distracted driving educational and community programs is mixed. According to a 2019 AAA meta-analysis, researchers have evaluated programs but direct comparison between studies or drawing general conclusions has proven difficult. This is due to different experimental designs and outcome measures. Evaluating

the long-term effect of a given program on individual drivers is often beyond the capability of program providers (Arnold et al., 2019).

Common tools SHSOs use to evaluate the effectiveness of their own distracted driving campaigns include annual phone attitudinal surveys; observations of driver behaviors before, during and after the intervention; and the number of impressions generated by media efforts, such as billboards, media stories and social media posts. SHSOs could partner with a university to gather information about the perceptions associated with distracted driving to create a positive culture framework and baseline surveys to measure perceived norms and gaps regarding distracted driving.

Media campaigns were the most common activity SHSOs conducted to address distracted driving. Most were paid media campaigns and included traditional efforts that were evaluated in terms of impressions and number of placements. For social media messaging, states indicated they track “likes” and click-through rates. SHSOs also conduct telephone surveys that have included questions about messaging awareness and retention of distracted driving branding to determine if the awareness grows over time.



SHSO survey respondents say it is difficult to know whether their media campaigns are having a meaningful impact.

PROMISING PRACTICE ★

» Alaska Distracted Driving Messaging Evaluation

Public service announcements are a commonly used tool to educate the public about a traffic safety problem and an action they can take to protect themselves (e.g., put down your phone, buckle up). To motivate people to change their behavior, media messaging must not only engage viewers, but also generate an emotional response that motivates them to act.

In 2021, the Alaska Highway Safety Office (AHSO) conducted a distracted driving observational study and measured the impact of a series of prevention videos to gain insight and guide future media messaging. The study included analysis of data from the NOPUS, Telephone Traffic Marketing Survey and Safe Alaskans’ Health Promotion Neuromarketing Lab (HPNL).

The HPNL collected data at the emotional and physiological levels, online and in real-time, while participants watched five different distracted driving videos. This allowed the researchers to gather viewer experience information at a more nuanced level than self-reported perceptions typically received from telephone surveys. Emotion, engagement, eye-tracking and gaze data were collected to measure the effectiveness of all the videos.

The results of this study were shared with the AHSO’s media contractor to aid in the selection and increased use of this video in future distracted driving campaigns. Going forward, the AHSO plans to assess, when conducting their telephone survey, if there is a strong recollection of the video and whether that translates into lower observed distracted driving rates.

However, SHSO survey respondents indicated they have not been able to evaluate the impact or effectiveness of their programs other than citations issued or media spots aired. This makes it difficult for SHSOs to know if their current programs are having a meaningful impact. There are also issues involving who is surveyed. Various respondents commented that it is more challenging to survey teens as opposed to adults, creating a gap in education and outreach effectiveness. SHSOs suggested that additional guidance is needed on how to accurately interview and survey young drivers and the methods for conducting different surveys to achieve the most accurate results. Clearly, SHSOs would benefit from additional guidance on how to conduct proper evaluations.

Recommendations for SHSOs:

- ✓ Educate drivers about the correct use of ADAS and reinforce the need to stay focused on the road even when these technologies are in use.
- ✓ Teach and encourage youth — and all passengers — to effectively speak up in a non-confrontational manner when a driver is distracted.
- ✓ Partner with insurers to offer incentive programs that reward drivers for safe driving behaviors.
- ✓ Educate employers about the costs and reasons employees drive distracted and help them institute and enforce employee policies.
- ✓ Conduct additional evaluation of distracted driving countermeasures to help SHSOs select more effective programs/initiatives that are most likely to result in behavioral and attitudinal change.

Conduct Enforcement

For SHSOs that received funding in the last five years, 73% dedicated those monies to support overtime enforcement efforts focused on distracted driving. Of the SHSOs that funded enforcement, most did not conduct any formal evaluation of the outcomes of those efforts. Instead, they focused on output measures such as the number of traffic citations or warnings issued, traffic stops conducted or contacts made, or hours worked by law enforcement, as well as overall agency participation. However, some SHSOs do conduct pre- and post-observational surveys to measure the impact of enforcement on distracted driving.

Some states indicated that enforcement efforts were coupled with media to create HVE initiatives during National Distracted Driving Awareness Month and other times of the year. For example, the Michigan Office of Highway Safety Planning (OHSP), in partnership with Michigan State University, supported an NSC research project to observe and evaluate distracted

↓57%

The decrease observed in hand-held cell phone use in Hartford, CT, after a year-long HVE project, which aimed to increase the perceived risk of getting a ticket.

— CDC, 2020b

KEY FACTS

» There is consensus among SHSOs that increased distracted driving enforcement is effective.

» SHSOs fund HVE programs to address distracted driving but evaluation of the impact of these efforts is limited.

driving in Kent and Wayne counties. The campaign displayed dynamic message signs to alert drivers about HVE to determine if the safety message had measurable impacts on driver behavior. While the enforcement was in effect, distracted driving rates fell by 16% and continued to decrease by a total of 25% in the weeks after enforcement ended. A white paper documenting these results is currently in development (Michigan State Police, 2020).

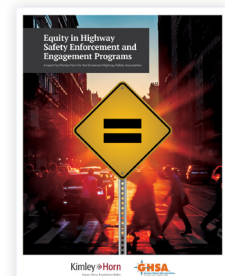
The Tennessee Highway Safety Office (THSO) conducts evaluation to determine the effectiveness of enforcement conducted by agencies that receive grant funding. The evaluation includes a review of data (e.g., number of officers, number of citations written), activities and overall effectiveness of each agency's program to determine if they achieved project goals and objectives. This information is documented in status reports and submitted in the THSO grants management system.

What States Can Do

States can encourage a diverse range of enforcement strategies to identify distracted drivers, such as focused patrols, the use of elevated vehicles or video/photography, roving patrols (unmarked cars), and covert tactics such as viewing from bridge overpasses and calling ahead to other officers in marked vehicles. Novel enforcement strategies are discussed in detail in the BTSCRP report [Using Electronic Devices While Driving: Legislation and Enforcement Implications](#) (NASEM, 2021b) discussed previously.

As in other areas of highway safety, technology can support more effective enforcement. [Acusensus](#) offers a safety camera program that leverages artificial intelligence to detect distracted driving and other illegal driving behaviors. Cameras positioned at traffic lights can autonomously capture real time photographic evidence that can be forwarded to a nearby patrol car. This technology may be able to identify distracted driving at travel speeds more effectively than individual police officers. Data collected in this manner can help law enforcement agencies and SHSOs better understand the extent of the problem and enable real-time deployment of education through message signs based on that data.

Earlier this report described broader concerns about the equitable enforcement of traffic safety laws, which is relevant not just for distracted driving but any traffic offenses and highway safety activities. GHSA recommends states adopt a range of key strategies to achieve more equitable outcomes, as outlined in the association's 2021 report, [Equity in Highway Safety Enforcement and Engagement Programs](#). This includes increasing the collection of data to assess whether racial profiling is a problem and focusing traffic enforcement efforts on risky highway safety problems rather than pretextual traffic stops (Sprattler, et al., 2021).



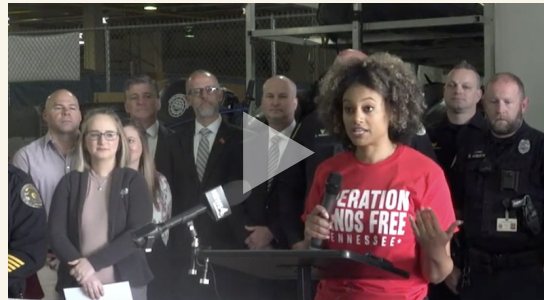
[Read the report](#)

Some oppose new distracted driving laws, and other traffic safety laws as well, because of the concern they may create a new pretext to engage in racial profiling (CBS Broadcasting, 2021). There is a clear pattern of law enforcement agencies focusing traffic enforcement efforts in high-crime neighborhoods, which tend to be disadvantaged, or leveraging traffic enforcement as a community policing strategy that aims to also address non-traffic crimes. GHSA's 2021 report describes how communities are curtailing this approach due to its impacts. Further, evidence suggests that racial and ethnic disparities in traffic stops decrease when traffic enforcement is primarily focused on risky driving behaviors, such as speeding, distracted driving and ignoring stop signs and other traffic control devices. For these reasons, GHSA recommends that distracted driving enforcement be purposeful and that SHSOs examine their own practices and the direction they give to their law enforcement grantees. The SHSO-funded enforcement focus should be on risky driving behaviors (Sprattler & Statz, 2021).

PROMISING PRACTICE ★

» Tennessee's Operation Hands Free

Surveys conducted by the THSO found many drivers were aware that distracted driving was dangerous. However, they also believed that what they did in their vehicles should be private and felt comfortable multi-tasking when driving. THSO also found law enforcement wrote few tickets for distracted driving. To combat this behavior, the THSO partnered with the state's law enforcement liaisons and the Tennessee Highway Patrol in 2017 to launch a program that used a bus to allow law enforcement officers to observe distracted drivers and other unsafe behaviors. They then communicated with local officers in patrol vehicles to engage with drivers spotted texting. Local media were encouraged to cover the initiative via press briefings and received invitations to ride along on the bus.



During the first tour, 224 traffic citations were issued. Each year since then, other law enforcement agencies in counties outside the major cities have implemented their own bus tours without THSO assistance. In 2018, the program was dubbed "Operation Incognito" but later changed to "Operation Hands Free" to coincide with passage of the state's hands-free law in 2020. The number of motorists engaged by law enforcement officials has nearly doubled every year since the program's inception.

Recommendations for SHSOs:

- ✓ Conduct equitable HVE of state and local distracted driving laws.
- ✓ Continue to evaluate the effectiveness of various distracted driving HVE initiatives.
- ✓ Explore the use of innovative distracted driving enforcement strategies to overcome enforcement barriers.
- ✓ Consider emerging technological solutions such as cameras that use artificial intelligence to identify and address distracted driving.
- ✓ Examine SHSO practices and direction to law enforcement grantees to encourage agencies to focus distracted driving enforcement on risky driving behaviors.

Promote Infrastructure Improvements

There are no infrastructure treatments that specifically address distracted driving, but there are countermeasures that can reduce roadway departure and lane crossover crashes often caused by this behavior. While SHSOs are not responsible for implementing infrastructure improvements, they can endorse their use and educate roadway users, the media, elected officials and other stakeholders about how they work to improve safety. SHSOs can also help initiate, provide outreach support and fund enforcement efforts for Safety Corridor projects.

The Federal Highway Administration offers a repository of [Crash Modification Factors](#) (CMF). The Clearinghouse can provide an estimate of the change in crashes expected after implementation of a countermeasure. According to the CMF Clearinghouse, the following infrastructure countermeasures can help prevent distracted driving:

- » **Enhanced delineation treatments**, such as larger chevron signs with enhanced retroreflectivity, alert drivers in advance of a curve. Chevron signs reduce nighttime crashes by 25% and non-intersection fatal and injury crashes by 16%.
- » **Rumble stripes and strips** help prevent vehicles from crossing the center line or running off the road. Rumble strips are milled or raised elements on the pavement that alert drivers through vibration and sound that their vehicles have left the travel lane. They are installed on the shoulder, edge line of the travel lane or at or near the center line of an undivided roadway. Rural roads with rumble strips have fewer crashes compared to roads without them. In 2020, at least five states introduced bills calling for installation of rumble strips or mandating the study of their effectiveness in combatting distracted and drowsy driving (NSCL, 2021). Centerline rumble strips reduce head-on, opposite direction and sideswipe fatal and



↓25%

Large chevron signs with enhanced retroreflectivity can reduce nighttime crashes by nearly a quarter.

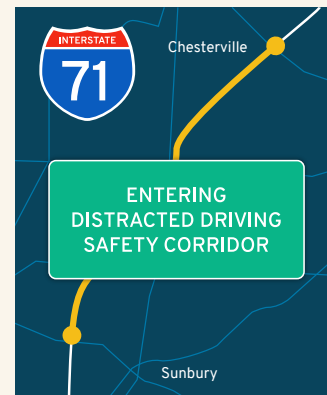
injury crashes by 44–64%. Shoulder rumble strips, meanwhile, have reduced single vehicle, run-off-the-road fatal and injury crashes by 13–51%. Pavement markings are placed over rumble strips to increase visibility during wet and nighttime conditions.

- » **SafetyEdge** shapes the edge of the pavement to eliminate the vertical drop-off at the pavement edge, allowing drifting vehicles to return to the pavement safely. The treatment reduces fatal and injury crashes by 11%.
- » **Median barriers** separate opposing traffic on a divided highway and redirect a vehicle in the event it strikes either side of the barrier. Median barriers reduce all fatalities on divided highways due to head-on crashes by 8%, but that reduction increases to 97% for rural, four-lane freeways.

PROMISING PRACTICE ★

» Ohio Distracted Driving Corridor

In 2018, Ohio implemented the nation's first Distracted Driving Safety Corridor. The Ohio DOT (ODOT) used Section 148 HSIP funds to place signage throughout the corridor. One of these signs included a counter that told motorists the number of days it had been since a serious crash occurred in the corridor. After installation of the signage, ODOT rolled out a media campaign to increase public awareness and partnered with the Department of Public Safety to increase enforcement. Rather than issuing traffic tickets, most of the enforcement activity involved distributing educational information to drivers. During the first two years of the program, all crashes and injury crashes declined 30% and 31%, respectively (Simpkins, 2020).



Recommendations for SHSOs:

- ✓ Partner with state and local infrastructure authorities to educate elected officials, partners, the media and the public about infrastructure improvements such as cable median barriers and rumble strips that can help mitigate distracted driving.
- ✓ Support distracted driving corridor projects through public outreach and by providing enforcement grants.

Competing Highway Safety Priorities & Funding

During the past five years, 81% of SHSOs that responded to the GHSA survey reported using both public and private funds to address distracted driving. Funding sources included the private sector

(46%), the Section 402 program (39%), Section 405(e) grants (9%), state funds (3%) and other (3%). The Michigan OHSP was the only SHSO that identified “other” as a funding source. In 2019, OHSP, in partnership with Michigan State University, received a Road to Zero Coalition Community Traffic Safety Grant to develop and test a methodological framework. The goals were to raise awareness of the problem of using a cell phone when driving, mitigate the degree to which drivers did so, and develop best practices for large-scale use of similar distracted driving strategies across the U.S.

Among SHSO survey respondents, 50% reported that the amount of funding used to address distracted driving remained flat for the past five years, while 19% experienced an increase in funding, 12% received less funding, and 19% did not use any funding.

For the 19% of SHSOs that did not use funding to address distracted driving, the reasons included:

- » Not receiving federal or state funds to specifically address distracted driving, potentially due to inadequate state laws that make enforcement difficult or disqualify the state from distracted driving specific funding.
- » Crash report data did not sufficiently substantiate the extent of the distracted driving problem to allow the state to make major investments in accordance with federal grant rules, as opposed to other well-documented highway safety risks such as lack of seat belt use, impaired driving and speeding.
- » Distracted driving is not an emphasis area.

What States Can Do

While SHSOs identified funding as an obstacle to addressing distracted driving, there are resources available to SHSOs to develop, implement and evaluate distracted driving initiatives. They include:

Section 402 State and Community Highway Safety Grant Program

The grant program under 23 U.S.C. Section 402 was the second most utilized funding source for distracted driving initiatives after private sector and nonprofit funding. Section 402 funding is the most flexible federal funding source available to SHSOs for conducting innovative programming. However, states also rely on Section 402 funding for a vast portfolio of other highway safety programs, including initiatives required under federal law. SHSOs are required to justify program expenditures using data, but data about distracted driving may not indicate the true size of the problem. Thus, after the money is allocated within the state, the amount available for distracted driving initiatives may be small.

Section 405 National Priority Safety Program — Section 405(e) Distracted Driving

The grant program established by 23 U.S.C. Section 405(e) is the only federal grant funding source for states dedicated to addressing distracted driving. Prior to the IIJA, states faced barriers to eligibility for this grant. In FFY 2021, only eight states were awarded funding (NHTSA, 2021). Changes to the IIJA discussed earlier in this report are anticipated to ease state eligibility rules.

Section 148 Highway Safety Improvement Program (HSIP) — Behavioral Funding Flexibility

Another change coming under the IIJA is the ability for states to use or “flex” up to 10% of annual HSIP funds, provided for under 23 U.S.C. Section 148, for behavioral safety projects. The use of these funds is conditional and there is competition for the funding among the portfolio of SHSO program needs. It will also require input from the state DOT, which manages the HSIP.

Private Sector and Nonprofit Funding

GHSA works with private sector partners to secure unrestricted grants that states can use to address behavioral safety problems such as distracted driving. SHSOs are encouraged to apply for state and local grant opportunities and to partner with traditional and non-traditional entities that can provide resources and in-kind services, such as using their own outreach channels to amplify the SHSO’s distracted driving message. Many highway safety advocacy organizations and insurance providers are engaged in distracted driving community programs and state legislative advocacy.

Recommendations for SHSOs:

- ✓ Consider whether to apply for the Federal Fiscal Year (FFY) 2024 NHTSA Section 405(e) distracted driving grant, which is expected to have broader eligibility standards.
- ✓ Promote the use of HSIP funds for behavioral distracted driving countermeasures.
- ✓ Seek out and apply for state and local grant opportunities and partner with traditional and non-traditional partners that can provide resources and in-kind services to help expand distracted driving outreach and initiatives.

Leadership and Partner Support

The SHSOs identified a lack of leadership and partner support, as well as a lack of tools and resources, as detriments to effectively addressing distracted driving.

Distracted driving is complex, so a comprehensive approach is needed. For a safety program to be successful it must have the acceptance, support and participation of key community stakeholders including government officials, judges and prosecutors, marketing and media representatives, educators, and survivor advocates. All are critical to a distracted driving initiative’s effectiveness (NASEM, 2021b).

SHSOs can start the process of prioritizing distracted driving by making the issue a program area in their HSP. They can also work with partners to include it as an emphasis area in the statewide SHSP. Although the data may be incomplete, a problem must be identified and tracked to be addressed. State safety plans not only draw attention to areas of traffic safety concerns, but they also legitimize the importance of addressing them. When distracted driving is determined to be a problem, support for countermeasures will follow.

KEY FACTS

- » Marshaling a broad coalition of partners aligns with the Safe System approach by creating a safety culture where distracted driving is unacceptable.
- » SHSOs can work with their private sector and nonprofit partners to bring resources to the table to expand the reach of distracted driving programs.

SHSOs most commonly partner with the DOT, Department of Motor Vehicles (DMV) and nonprofit organizations to combat distracted driving. Other partners SHSOs identified included state and local health and law enforcement agencies, survivor advocacy groups and private sector organizations. Partnering with any of these entities could provide access to additional resources, programs and networks to expand the fight to end distracted driving. For example, the Tennessee Highway Safety Office partners with the Department of Health and faith-based communities to expand their distracted driving outreach efforts to the state's Latino population. SHSOs could also request that safety partners conduct anti-distracted driving programs and have employees sign a pledge not to use a phone while driving on business. This improves safety culture when these activities translate to behavioral change and is more impactful when employees take the message home to their families and friends to not use a phone or engage in other distracting activities while driving.

In September 2021, road safety groups from across the nation joined forces with the National Transportation Safety Board and other federal agencies to form the [National Distracted Driving Coalition](#) (NDDC) to combat distracted driving. The coalition's vision is to accelerate national efforts to implement short-and long-term interventions that will promote attentive driving and reduce distracted driving fatalities and injuries. NDDC has developed an [action plan](#) that addresses data, education, employers, enforcement, legislation and technologies.

[Drive Smart Virginia](#) (DSV), a nonprofit organization whose mission is to raise traffic safety awareness among all road users, conducts an annual Distracted Driving Summit that draws speakers and attendees from across the U.S. DSV believes that strategies such as rewarding drivers for engaging in safe behaviors and reframing the message to focus on attentive driving can help reduce distracted driving crashes. DSV also believes SHSOs are the leading entity to motivate and bring all partners to the table — executive leadership, the DOT, DMV, the trucking industry, public health agencies, hospitals, insurance agencies, law enforcement and the private sector — to address distracted driving. DSV has served as a resource to SHSOs for tips on fostering community partnerships and developing templates and toolkits.

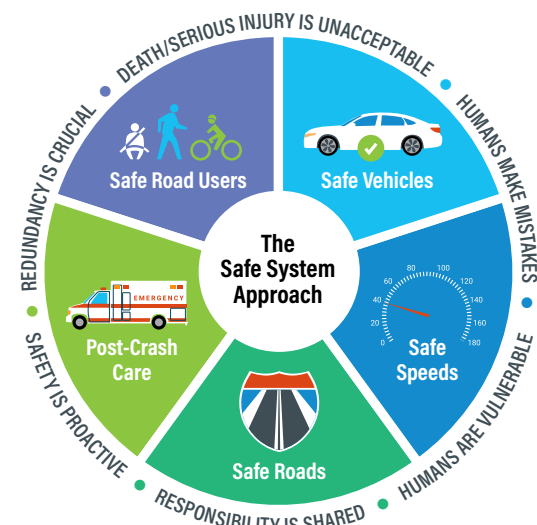
The [Kiefer Foundation](#) recommends taking national organization a step further with the creation of a new national advocacy organization that can give voice to those who were killed and injured in distracted driving crashes. The most well-known model is Mothers Against Drunk Driving (MADD), which has helped reduce impaired driving crashes by half since its founding in 1980. A similar group could join forces in the fight against distracted driving deaths, provide leadership at the national level, coalesce around consistent messages, provide survivor services similar to MADD, help shift the safety culture around distracted driving and advocate for improved distracted driving policies.

In 2021, GHSA released [Putting the Pieces Together: Addressing the Role of Behavioral Safety in the Safe System Approach](#), which articulated how to integrate behavioral highways safety initiatives into the Safe System approach. The Safe System approach envisions eliminating fatal and serious injuries for all road users by creating a transportation system that accommodates human mistakes, keeps impacts on the human body at tolerable levels and protects drivers with redundant layers of protection (Laing et al., 2021). The Safe System approach focuses on six principles and five elements, illustrated below.



[Read the report](#)

The Safe System Approach



Source: FHWA

SAFE SYSTEM PRINCIPLES	
Death/Serious Injury is Unacceptable	SHSOs should likewise promote a culture that distracted driving, which leads to death and serious injury, is unacceptable.
Humans Make Mistakes	Clearly, decisions to engage in distracted driving behavior and the misconceptions about it stem from human fallibility.

Humans are Vulnerable	Distracted driving is a significant threat to non-motorized road users who may be ignored or not seen.
Responsibility Is Shared	Distracted driving is widespread. Every driver and passenger can contribute to its prevention, along with government, industry and advocacy partners.
Safety is Proactive	SHSOs should invest in programs to stop dangerous drivers and change the culture that supports distracted driving.
Redundancy Is Critical	SHSOs should leverage education, community programs, enforcement, infrastructure and technology to address distracted driving.

SAFE SYSTEM ELEMENTS	
Safe Users	SHSOs can implement education, community and equitable enforcement programs.
Safe Speeds	Broader speed management efforts can help mitigate distracted driving by affording more reaction time, and generally reducing the severity of any crash.
Safe Roads	Roadway countermeasures can reduce departure and lane crossover crashes often caused by distracted driving.
Safe Vehicles	Interactive interfaces in vehicles (and in electronic devices) can be designed to reduce the potential for dangerous distraction.
Post-Crash Care	Efforts to improve emergency response improve all crash outcomes.

Like all highway safety issues, distracted driving initiatives can be framed under the Safe System elements and principles. State highway safety planners are encouraged to use the Behavioral Safety Safe System Framework presented in GHSA's report.

Recommendations for SHSOs:

- ✓ Include distracted driving as a program area, with a performance measure and target, in the HSP.
- ✓ Work with state partners to include distracted driving as an emphasis area in the SHSP.
- ✓ Be a state anti-distracted driving leader by promoting a strong safety culture among partner agencies. Encourage them to conduct their own distracted driving programs and establish and enforce employee policies.
- ✓ Expand the SHSO's network to include state and federal agencies, nonprofit organizations and survivor advocacy groups that have distracted driving resources and programs.
- ✓ Promote the role of behavioral safety programs to combat distracted driving as a component of the Safe System approach.

In Conclusion

Distracted driving remains a persistent and, unfortunately, widely acceptable practice. Progress has remained stagnant and the fight against distracted driving has largely been a traffic safety culture failure. Like speeding just a few years ago, distracted driving threatens to recede into the national consciousness and become a forgotten highway safety problem.

Distracted driving often seems like it is all problems with few solid solutions. The prevalence, risks and effectiveness of commonly used countermeasures to address it have been difficult to quantify even after several decades of application and study. There are four overarching challenges the nation must confront if gains are to be made in changing the social norm:

- » Much of the energy of the highway safety community has been dedicated to a quixotic pursuit of perfect data about distracted driving. Though this work is valuable, more must be invested in direct interventions. Distracted driving data is incomplete and, to the extent that distraction is a matter of the mind, data may always be imperfect. But this should not be an excuse for not taking more direct action.
- » The shortcomings or limited understanding of various distracted driving countermeasures may be worrisome, but this points to the need for a comprehensive strategy based on the Safe System approach. Efforts to only enforce, build, educate or engineer our way out of distracted driving seem unlikely to succeed on their own. Investing in all these areas simultaneously is essential for addressing the distracted driving problem.

- » More attention must be devoted to identifying a successful culture change strategy. Otherwise, distracted driving efforts will continue to be stymied. Much of the behavioral attention given to combating this problem has focused on relatively low commitment interventions: establishing laws, which impose minimal costs for government, and law enforcement, which is cost-intensive but familiar and straightforward. Higher order preventative efforts to change people's minds, attitudes and perceptions will require costly and time-intensive development of more messages and programs that can be proven effective.
- » The highway safety community needs more leadership at the federal, state and local levels to prioritize the issue of distracted driving, to remind all involved of the importance of carrying out available countermeasures and to promote more investment in a culture change strategy. One recommendation mentioned within this report is the formation of a new national distracted driving advocacy organization based on the MADD model. Such an organization could help advance the issue of distracted driving in valuable ways.

The SHSOs and their partners are at the vanguard of national efforts to address distracted driving. This report includes a lengthy list of recommendations to help SHSOs bolster their distracted driving programs. With federal highway safety programs newly reauthorized, now is an opportune time for the entire highway safety community to re-evaluate our collective approach to the problem and launch new and renewed efforts to direct drivers' attention safely on the road ahead.

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