SB24-065

Mobile Electronic Devices & Motor Vehicle Driving

Concerning the use of mobile electronic devices when driving a motor vehicle Sponsors: Sen. C. Hansen I Sen. R. Fields I Rep. M. Froelich I Rep. D. Ortiz





February 2024





EXECUTIVE SUMMARY

- 287 bicyclists, pedestrians, and motorcyclists died on Colorado's roads in 2023, an all-time high. Distracted driving is a major contributing factor.
- Distracted driving results in over 10,000 crashes, 1,400 injuries, and 70 deaths annually in Colorado (Note: Data on distracted driving resulting in crashes, injuries, and fatalities is often understated as it is typically self-reported; it is believed many people do not admit to driving distracted when in a crash)
- Over 90% of Coloradans admitted to driving distracted in any given week. Phones were cited as the top distraction.
- To eliminate distracted driving, a multi-pronged approach is needed, including infrastructure changes, laws and enforcement, education, public awareness, and technology.
- SB24-065 will ban the hand-held use of mobile electronic devices, a law that is in place in 48 countries and 34 U.S. states. 76% of drivers support a law banning the use of hand-held mobile electronic devices.
- Research indicates (21 studies cited throughout this document) the following:
 - The majority of Coloradans use their phones when driving;
 - Phone use is one of the most dangerous distractions it increases the risk of crashing by a factor of 12;
 - Using phones when driving results in an increase in crashes, injuries, and fatalities;
 - Hand-held bans reduce phone use when driving;
 - Hand-held bans reduce crashes, injuries, and fatalities.



THE PROBLEM

Traffic Fatalities are on the Rise

The below chart reflects that **20** bicyclists and **133** pedestrians were killed in Colorado in 2023. Combined, bicyclists and pedestrian fatalities in Colorado are at **an all-time high**. From 2002 - 2023, **1,872** bicyclists and pedestrians have died in Colorado.



Additionally, motorcycle fatalities have been on the rise, increasing from **73** in 2002 to **134** in 2023. From 2002 - 2023, **2,173** people have died riding their motorcycles in Colorado.

In total, **13,001** people died on Colorado's roads from 2002 - 2023, including **716** in 2023.

Distracted Driving = Traffic Fatalities

A recent study conducted by the Colorado Department of Transportation revealed that in 2020, **10,166** crashes in Colorado involved a distracted driver, resulting in **1,467** injuries and **68** deaths. In 2021, **72** traffic fatalities were attributed to distracted driving (Note: Data on distracted driving resulting in crashes, injuries, and fatalities is often understated as it is typically self-reported; it is believed many

72

The number of people who died in Colorado in 2021 due to distracted driving



people do not admit to driving distracted when in a crash).

In this same study, **91%** of respondents admitted to driving distracted during the immediate week before taking the survey and **that phones were the top distraction.**

One of the largest national studies on distracted driving used a database of observations made via multiple onboard video cameras and sensors; it gathered information from more than 3,500 drivers over a three-year period. This study helped quantify the scale and impact of distracted driving. Of the 905 crashes involving an injury over the period of the study, **68.3% were due to distraction**. The study further concluded that **looking at a phone increases the risk of crashing by a factor of 12.** ¹ Phone use was cited as a top distraction, second only to engaging with passengers.

SB24 - 065 OVERVIEW

Current Colorado law bans phone use while driving for people under 18 and prohibits texting while driving for drivers of all ages. SB24-065 would extend this prohibition of phone use while driving to people 18 and older unless they use a hands-free accessory.

The following uses are exempted:

- An individual reporting an emergency to state or local authorities;
- An employee or contractor of a utility when responding to a utility emergency;
- A first responder; or
- An individual in a motor vehicle that is parked.

The penalties for a violation are:

- For a first offense, a \$75 fine and two license suspension points;
- For a second offense within 24 months, \$150 fine and three license suspension points; and
- For a third or subsequent offense within 24 months, a \$250 fine and four license suspension points.

A violation will be dismissed if the individual has not previously committed a violation, produces proof of purchase of a hands-free accessory, and affirms, under penalty of perjury, that the defendant has not previously claimed this option to dismiss.

Current law requires a peace officer who makes a traffic stop to record the demographic information of



the violator, whether a citation has been issued or not, and the violation cited. The bill clarifies that the peace officer must record whether the bill has been violated.

By 2009, 48 countries and 9 U.S. states banned the use of hand-held electronic devices. Today, Colorado is one of 16 states that have not enacted a law prohibiting the use of mobile electronic devices. Of the 34 states and territories (D.C., Puerto Rico, Guam, the Northern Mariana Islands, and the US Virgin Islands) that prohibit the use of mobile electronic devices when driving, all but Alabama and Missouri are primary enforcement laws (i.e., an officer may cite a driver for using a hand-held device without any other traffic offense taking place).

The 2019 Traffic Safety Culture Index—a nationally representative survey that has been conducted annually since 2008 to identify American drivers' perceptions, attitudes, and behaviors related to traffic safety issues—reported that 76% of drivers support a law against holding and talking on a cell phone when driving.

IMPACT OF HAND-HELD LEGISLATION

Research Highlights:

Below are 19 studies on the impact of hands-free legislation on traffic safety.

Twelve studies or data sets conclude that legislation banning the use of hand-held cell phones when driving has a material impact on reducing crashes and fatalities. For example:

- A 2012 California study concluded that deaths caused by drivers using phones fell by 47%.
- Data from Tennessee reveals that since the state adopted a hand-held ban in July 2019, crashes from distracted driving declined from 12,942 in 2018 to 9,873 in 2023, a 31% change.

(Note: Data on distracted driving resulting in crashes, injuries, and fatalities is often understated as it is typically self-reported; it is believed many people do not admit to driving distracted when in a crash).

Six studies focus on the connection between hands-free legislation on *levels of phone use* when driving and not the effect on crashes, leaving it to readers to deduce that a decline in the use of phones when

6	States that allow drivers to hold phones when driving, including Colorado		
Alaska	-	New Mexico	
Colorado	-	North Carolina	

North Carolina North Dakota

Pennsylvania

South Carolina

South Dakota

Mississippi Montana Nebraska

lowa

Kansas

Kentucky

Utah

Wyoming

Percent of U.S. drivers who support a law prohibiting driving.

holding and talking on a phone when



driving results in a decrease in crashes and fatalities. All six studies conclude that hands-free legislation reduces phone use when driving, in some cases, by up to 60%.

<u>Hand-Held Ban = Reduction in Crashes, Injuries, and Fatalities</u>

Distracted Driving Crashes in Tennessee

<u>Data Set</u>

Data from Tennessee reveals that since the state adopted a hands-held ban in July 2019, crashes from distracted driving declined from <u>12,942 in 2018 to 9,873 in 2023, a 31% change.</u>

Reduction in Fatalities per 100 Vehicle Miles Traveled

Source: National Highway Transportation Safety Administration

Observations from the data:

- 12 of the 15 states experienced a decrease in fatalities within two years after adopting a hands-free law, while two other states (New Hampshire and Oregon) did not have sufficient data;
- Six of these states experienced a greater than 20% decrease in fatalities.

State	Year of Law Passage	Fatality Increase/(Decrease) % From Year Before Passage to 2 Years After
California	2008	-31.1%
Connecticut	2005	-1.1%
Delaware	2010	-3.1%
D.C.	2004	-45.5%
Hawaii	2013	-26.6%
Illinois	2014	4.4%
Maryland	2010	-13.1%
Nevada	2011	-6.9%
New Hampshire	2015	n/a



New Jersey	2007	-21.6%
New Mexico	2014	-12.1%
New York	2001	-1.8%
Oregon	2017	n/a
Vermont	2014	-19.6%
Washington	2007	-22.3%
West Virginia	2013	-23.3%
Average		-16.0%

Study by the Safe Transportation Research and Education Center at UC-Berkeley (2012)

Based on an analysis of state crash records before and after the 2008 passage of a ban on hand-held electronic devices when driving, vehicle accident <u>fatalities decreased by 22%</u>, while <u>deaths caused by</u> <u>drivers using hand-held cell phones fell 47%</u>. An overall drop in cell phone usage while driving contributes to the decline in cell phone-related deaths and injuries. A Statewide Intercept Opinion Survey commissioned with federal funds by OTS last summer showed that <u>40% of California drivers reported they talk less (with handheld and hands-free devices) since the ban's enactment.</u>

Evaluating the Impact of Legislation Prohibiting Hand-Held Cellphone Use While Driving in New York.

Alexander G. / Nikolaev A. / Matthew J. / Robbins B. / Sheldon H./ Jacobson C. January 2010. Abstract

In 2001, New York became the first state to ban the use of hand-held phones while driving. This study concluded that after implementing this law, <u>46 counties in New York experienced lower fatal</u> <u>automobile accident rates</u>, <u>10 of which did so at a statistically significant level</u>, <u>and all 62 counties</u> <u>experienced lower personal injury automobile accident rates</u>, <u>46 of which did so at a statistically</u> <u>significant level</u>.



On the identification of the effect of prohibiting hand-held cell phone use while driving in New York

Abstract The analysis found a <u>reduction in fatal crash rates between the pre-ban and post-ban periods that was</u> significantly greater in New York compared with Pennsylvania, a state without a hand-held ban.

Assessing the Long-Term Benefit of Banning the Use of Hand-held Wireless Devices While Driving in New York

Jacobson SH / King DM / Ryan KC. Transp Res Part A. (2012) Abstract

Sampio (2010)

The researchers examined the effects of New York's ban on the rate of injury crashes per licensed driver in New York and Pennsylvania during 1997–2008. The researchers concluded that there was a significant increase in crash rates at the onset of the ban for urban/suburban and very rural counties and a <u>significant decreasing trend in injury crash rates during the years following the ban as compared</u> with the years before the ban for urban/suburban and rural counties, relative to the changes in <u>Pennsylvania</u>.

The Effects of Mobile Phones and Hands-free Laws on Traffic Fatalities.

Kolko JD. *The BE Journal of Economic Analysis & Policy Contributions*. 2009 <u>Abstract</u>

The researcher examined whether cellphone ownership rates and all-driver hand-held cellphone bans were associated with monthly annual crash deaths per billion vehicle miles traveled across the 48 contiguous states and the District of Columbia during 1997–2005. <u>Cellphone ownership was positively associated with the monthly annual fatality rate, and hand-held cellphone bans were negatively associated. Higher mobile phone ownership was significantly associated with higher fatality rates in bad weather or wet road conditions, and hand-held cellphone bans were significantly associated with lower fatality rates in these same conditions.</u>

Cellphone Bans and Fatal Motor Vehicle Crash Rates in the United States

Lim SH / Chi J. *Journal of Public Health Policy.* 2013 <u>Abstract</u>

The researchers used state-level annual fatal crash data during 2000–10 to study the effects of all-driver hand-held cellphone bans with primary enforcement on fatality rates per miles traveled, fatality rates per capita, and the total number of drivers and number of drivers in different age groups in fatal crashes. <u>All-driver hand-held cellphone bans allowing primary enforcement were associated</u>



with a significant reduction in the total number of drivers and the number of drivers in the age groups younger than 55 involved in fatal crashes.

Estimating the Impact of Cell Phone Laws on Car Accident Fatalities

Anyanwu O. *Pepperdine Police Review.* 2012 <u>Abstract</u>

The researcher used state-level annual fatal crash data during 2000–2009 to study the effects on crash fatalities of all-driver hand-held cellphone bans, all-driver texting bans, bans that prohibit drivers younger than 20 from using cellphones, and bans that restrict intermediate license holders from using cellphones. <u>States with all-driver hand-held cellphone bans had significantly fewer fatalities than states without bans after controlling for the overall licensed driver population, licensed teenage population, the ratio of male to female licensed drivers, state personal income, and state and year fixed effects.</u>

Bans on Cellphone Use While Driving and Traffic Fatalities in the United States

Matao Jue / Sijun Shen / Donald A Redelmeier / Li Li / Lai Wei / Robert Foss. Center for Injury Research and Policy at Nationwide Children's Hospital. *Epidemiology.* September, 2021. <u>Abstract</u>

This study found that <u>hands-free cellphone laws were associated with fewer driver deaths</u>, but calling-only, texting-only, and texting plus phone manipulation were not. This could be due to greater compliance; hands-free cellphone laws clearly convey that cell phones should not be handled at all while driving. In addition, drivers may be more likely to believe that enforcement is possible when laws broadly govern cellphone use.

Distracted Driving Laws and Motor Vehicle Crash Fatalities

Michael R. Flaherty / Alexander M. Kim / Michael D. Salt / Lois K. Lee. *American Academy of Pediatrics.* June 2020. <u>Abstract</u>

From 2007 to 2017, there were 38,215 drivers 16 to 19 years old involved in fatal motor vehicle crashes in the United States. Researchers concluded that <u>primarily enforced distracted driving laws are</u> <u>associated with a lower incidence of fatal motor vehicle crashes involving 16- to 19-year-old drivers.</u> Bans on all hand-held device use and texting bans for all drivers are associated with the greatest decrease in fatal motor vehicle crashes.



The Association Between Strengthened Cellphone Laws and Police-Reported Rear-End Crash Rates

Reagan, Ian J. / Cicchino, Jessica B. / Teoh, Eric R. / Cox, Aimee E. *Journal of Safety Research*. September 2023. Abstract

Law changes in Oregon and Washington were associated with <u>significant reductions of 8.8% and 10.9%</u>, <u>respectively</u>, in the rates of monthly rear-end crashes with injury relative to the controls. (Note:

Rear-end crashes were chosen because past research has shown that cellphone use is associated with a much larger increase in the odds of those crashes than any other type).

Hand-Held Bans = Reduction in Phone Use when Driving

Driver Cellphone and Texting Bans in the United States: Evidence of Effectiveness

McCartt, Anne T. / Kidd, David G. / Teoh, Eric R. Annals of Advances in Automotive Medicine. March 2014 Abstract

Almost all U.S. states have laws limiting drivers' cell phone use. The evidence suggests that <u>all-driver</u> <u>bans on hand-held phone conversations have resulted in long-term reductions in hand-held phone use</u>, and drivers in states with a ban reported higher rates of hands-free phone use and lower overall phone use compared with drivers in non-ban states.

Effects of Washington, D.C. Law on Drivers' Hand-Held Cell Phone Use

Anne T McCartt / Laurie A Hellinga / Lori L Geary. March 2006. Abstract

Researchers collected 36,091 daytime observations of drivers at signalized intersections in D.C. in March 2004, several months before the law took effect on July 1, 2004, and again in October 2004, and 25,151 observations in Maryland, and 28,483 in Virginia, states that placed no limitations on drivers' phone use. <u>Phone use in D.C. declined by 50%</u>.

Do Cell Phone Bans Change Driver Behavior?

Chen. November 2014.

<u>Abstract</u>

The researcher used individual-level data on drivers' visible cell phone usage (National Occupant Protection Use Survey - NOPUS) in 23 states adopting a hand-held ban. <u>The researcher concluded hand-held bans reduced texting and talking when driving by about 60 to 50 percent, respectively.</u>



The Impact of Illinois' Comprehensive Hand-Held Phone Ban

Marco H Benedetti / Bo Lu / Neale Kinnear / Li Li / M Kit Delgado / Motao Zhu. February 2023. <u>Abstract</u>

In 2014, Illinois banned using hand-held mobile electronic devices when driving. Researchers concluded that "the pre-to-post intervention <u>decrease in the drivers's probability of self-reporting talking on a hand-held phone was significantly more extreme than that of drivers in control states."</u>

Crash Statistics from the National Highway Traffic Safety Administration (NHTSA)

Traffic Safety Report

NHTSA conducted two pilots on enforcement campaigns in Hartford, CT and Syracuse, NY. The NHTSA actively observed cell phone use and conducted public awareness surveys at driver licensing offices in the two cities, which found: In Syracuse, New York, both handheld cell phone use and texting behind the wheel have declined by one-third. In Hartford, Connecticut, there was a 57% drop in handheld use and texting behind the wheel.

Short-Term Impacts of All-Driver Hand-Held Cellphone Bans on High-Schoolers' Texting While Driving

Marco H Benedetti / David D Schwebel / Toni Mo Rudisill / Gary A Smith / Motao Zhu. *National Library of Medicine*. February 2023.

<u>Abstract</u>

Teen drivers are more likely than their older counterparts to engage in distracted driving. A number of states prohibit cellphone use for teen drivers but only prohibit texting for all drivers. Evidence that these laws have been effective is mixed. Analyzing youth behavior in Georgia, Illinois, and control states North Carolina and Michigan, researchers studied the impact of universal bans on using hand-held cell phones when driving on teen texting. In Illinois, <u>45.4% of high school drivers texted while driving in 2013. After a 2014 policy to ban hand-held use of phones for all drivers, the percentage decreased in 2015 to 41.8% and decreased further in 2017 to 37.7%. In Georgia, the percentage decreased from <u>37.5% before the law to 30.8% after.</u></u>

Hand-Held Ban = Reduction in Insurance Premiums

The Effect of Distracted Driving Laws on Automobile Liability Insurance Claims

J. Bradley Karl / Charles Nyce. *North American Actuarial Journal.* January 23, 3020. <u>Abstract</u>

This study estimated that primary <u>hand-held bans for all drivers lead to a reduction in injury liability</u> <u>claims of approximately 9.2%</u> in any given year during the post-ban period. This reduction in claims



<u>leads to a 7.7% annual savings in the insurance industry.</u> Only the strongest distracted driving laws have a statistically meaningful impact on injury liability loss costs. Finally, this study calculated that, on average, <u>4.7% of insurance premium savings are attributable to distracted driving bans.</u>

FACTORS AFFECTING IMPACT OF DISTRACTED DRIVING LEGISLATION

States began exploring legislation in 1999 to address growing concerns about the use of phones while driving. Today, 34 states prohibit the use of hand-held electronic devices for people of all ages, and a growing body of research is beginning to reveal the factors that determine the impact such laws have on distracted driving.

States that have seen the most significant benefits of legislation aiming to reduce phone use when driving share one or more of the following characteristics:

- A hands-free requirement offers few, if any, exceptions to handling a cell phone (e.g., some laws allow drivers to swipe a screen and interface with maps).
- The hands-free laws apply to drivers of all ages, not just those under 18.
- The law is a primary offense.
- The law has a fine structure consistent with other similar traffic violations.
- The police have the resources to enforce the law.
- The law is included in driver training and testing.
- A communications plan supports public awareness of the law.

Finally, although a new strategy, some communities are exploring the use of automated traffic enforcement to enforce distracted driving laws.

¹ Driver crash risk factors and prevalence evaluation using naturalistic driving data. Proceedings of the National Academy of the Arts and Science of the United States of America. Thomas A. Dingus, Feng Guo, Suzie Lee, Jonathan Hankey. February 22, 20216.