

LEGISLATIVE RESEARCH REPORT

JANUARY 26, 2011



REPORT NUMBER 11.132

LAWS REGARDING CELLULAR PHONE USE BY DRIVERS

PREPARED FOR REPRESENTATIVE CATHY MUÑOZ

BY TIM SPENGLER, LEGISLATIVE ANALYST

You wanted to know what states have done regarding limiting or banning the use of cellular (cell) phones by individuals operating motor vehicles.¹

Alaska Legislation Regarding Driver Cell Phone Usage

Under Alaska law (AS 28.35.161), enacted September 1, 2008, drivers are effectively banned from text messaging while operating a motor vehicle. Alaska is one of the 30 states (and the District of Columbia) to ban text messaging for drivers—thought by many experts to be the most distracting cell phone activity. There have also been several attempts in Alaska this decade to limit or ban the use of cell phones by all drivers, but none has been successful.

Currently, the Alaska legislature is considering three bills—House Bill 22, House Bill 35 and House Bill 68—all of which would prohibit the use of cellular telephones by an individual, regardless of age, while driving a motor vehicle.

Legislation in Other States

According to the Insurance Institute for Highway Safety (IIHS), as of January 2011, the following cell phone bans or restrictions are in place across the nation:²

- Nine states and the District of Columbia impose state-wide bans on driving while talking on hand-held cell phones;³

¹ This report is essentially an update of Legislative Research Report 10.179 from February 18, 2010.

² The Insurance Institute for Highway Safety is an independent, nonprofit organization focused on reducing the losses — deaths, injuries, and property damage — from crashes on the nation's highways (<http://www.iihs.org/>).

³ The nine states that impose state-wide bans on driving while using hand-held cell phones are California (Vehicle Code 23123), Connecticut (Public Act No. 05-159), Delaware (Del. Code 4176C), Maryland (Md. Code Ann. 21-1124.2), New Jersey (N.J.S.A. 30:4-97.3), New York (Vehicle and Traffic Law Section 1225c), Oregon (ORS 811.507), Utah (UT Code 41-6a-1715), and Washington (RCW 46.61.667). Utah considers talking on a cell phone, without a hands-free device, to be an offense only if a driver is also committing some other moving violation (other than speeding).

- Nineteen states and the District of Columbia prohibit the use of a cell phone while operating a school bus;⁴
- Twenty-eight states and the District of Columbia prohibit novice drivers—usually defined as drivers under 18 years old—from using cell phones when operating vehicles;⁵ and,
- Thirty states and the District of Columbia ban drivers from text messaging.⁶

We include, as Attachment A, a table from the Institute for Highway Safety that presents an overview of states' cell phone laws. Also in Attachment A, we include a *question and answer* sheet from the IIHS on cell phones and driving. It provides a summary of the myriad issues surrounding this topic. Arthur Goodwin, senior research associate at the Highway Safety Research Center, contends that laws banning or limiting cell phone use while operating a motor vehicle are of vital importance and are gaining momentum nationwide.⁷ He likened the situation to when seat belt laws came to the fore in the United States: it took some time to educate the public, and for people to change their habits, but eventually most did. Mr. Goodwin believes this will be the case with cell phone laws—that it will take time and continued efforts for these laws to become solidified in our national consciousness.

All the experts with whom we spoke, and the literature we reviewed, support states enacting laws restricting the use of cell phones while driving.⁸ While difficult to enforce, such legislation does highlight the reality that the behavior is unsafe.

We hope you find this information to be useful. Please let us know if you have questions or need additional information.

⁴ School bus drivers in the following states are banned from using cell phones while driving: Arizona, Arkansas, California, Connecticut, Delaware, Georgia, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota, New Jersey, North Carolina, Oklahoma, Rhode Island, Tennessee, Texas, and Virginia.

⁵ Novice drivers are banned from using cell phones while driving in the following states: Alabama, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Nebraska, New Jersey, North Carolina, Oregon, Rhode Island, Tennessee, Texas, Vermont, Virginia, Washington, and West Virginia.

⁶ A ban on texting while driving is in place in the following states: Alaska, Arkansas, California, Colorado, Delaware, Connecticut, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Oregon, Rhode Island, Tennessee, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming.

⁷ The Highway Safety Research Center's stated mission is to improve the safety, security, access and efficiency of all surface transportation modes through a balanced, interdisciplinary program of research, evaluation and information dissemination (<http://www.hsrrc.unc.edu/index.cfm>). Arthur Goodwin can be reached at (919) 843-5038.

⁸ In addition to Mr. Goodwin, we also contacted Anne McCartt, Senior Vice President of the Insurance Institute for Highway Safety (703) 247-1534, and Dr. David Strayer of the University of Utah, who has studied distracted drivers issues for more than ten years (801) 581-5037.

Attachment A

Cellphone Laws, Insurance Institute for Highway Safety, January 2011

Q&As: Cellphones and Driving, Insurance Institute for Highway Safety, January
2011

Cellphone laws

January 2011

A jurisdiction-wide ban on driving while talking on a hand-held cellphone is in place in 9 states (California, Connecticut, Delaware, Maryland, New Jersey, New York, Oregon, Utah, and Washington) and the District of Columbia. Utah has named the offense careless driving. Under the Utah law, no one commits an offense when speaking on a cellphone unless they are also committing some other moving violation other than speeding.

Local jurisdictions may or may not need specific state statutory authority to ban cellphones or text messaging. Several of the many localities that have enacted restrictions on cellphone use include: Oahu, HI; Chicago, IL; Brookline, MA; Detroit, MI; Santa Fe, NM; Brooklyn, North Olmstead, and Walton Hills, OH; Conshohocken, Lebanon, and West Conshohocken, PA; Waupaca County, WI; and Cheyenne, WY.

The use of all cellphones while driving a school bus is prohibited in 19 states and the District of Columbia.

The use of all cellphones by novice drivers is restricted in 28 states and the District of Columbia.

Text messaging is banned for all drivers in 30 states and the District of Columbia. In addition, novice drivers are banned from texting in 8 states (Alabama, Indiana, Maine, Mississippi, Missouri, Oklahoma, Texas, and West Virginia) and school bus drivers are banned from text messaging in 2 states (Oklahoma and Texas).

The table below shows the states that have cellphone laws, whether they specifically ban text messaging, and whether they are enforced as primary or secondary laws. Under secondary laws, an officer must have some other reason to stop a vehicle before citing a driver for using a cellphone. Laws without this restriction are called primary.

Table Map: hand-held bans Map: young driver bans Map: bus driver bans Map: texting bans

Laws restricting cellphone use and texting

State	Hand-held ban	Young drivers all cellphone ban	Bus drivers all cellphone ban	Texting ban	Enforcement
Alabama	no	drivers age 16 and 17-year-old drivers who have held an intermediate license for fewer than 6 months	no	drivers age 16 and 17-year-old drivers who have held an intermediate license for fewer than 6 months	primary
Alaska	no	no	no	all drivers	primary
Arizona	no	no	school bus drivers	no	primary
Arkansas	drivers 18 or older but younger than 21	drivers younger than 18	school bus drivers	all drivers	primary: texting by all drivers and cellphone use by school bus drivers; secondary: cellphone use by young drivers ¹
California	all drivers	drivers younger than 18	school and transit bus drivers	all drivers	primary: hand held and texting laws; secondary: hands-free cellphone use by young drivers ¹
Colorado	no	drivers younger than 18	no	all drivers	primary
Connecticut	all drivers	drivers younger than 18	school bus drivers	all drivers	primary
Delaware	all drivers	learner's permit and intermediate license holders	school bus drivers	all drivers	primary
District of Columbia	all drivers	learner's permit holders	school bus drivers	all drivers	primary

Florida	no	no	no	no	not applicable
Georgia	no	drivers younger than 18	school bus drivers	all drivers	primary
Hawaii	no	no	no	no	not applicable
Idaho	no	no	no	no	not applicable
Illinois	drivers in construction and school speed zones	drivers younger than 19 and learner's permit holders younger than 19	school bus drivers	all drivers	primary
Indiana	no	drivers younger than 18	no	drivers younger than 18	primary
Iowa	no	learner's permit and intermediate license holders	no	all drivers	primary for learner's permit and intermediate license holders; secondary for texting
Kansas	no	learner's permit and intermediate license holders	no	all drivers	primary
Kentucky	no	drivers younger than 18	school bus drivers	all drivers	primary
Louisiana	with respect to novice drivers, see footnote ²	all novice drivers, see footnote for detail ²	school bus drivers	all drivers	primary ²
Maine	no	learner's permit and intermediate license holders	no	learner's permit and intermediate license holders	primary
Maryland	all drivers	learner's permit and provisional license holders younger than 18	school bus drivers (hand-held ban)	all drivers	secondary; primary for texting
Massachusetts	no	drivers younger than 18	school bus drivers and passenger bus drivers	all drivers	primary
Michigan	no	no	no	all drivers	primary
Minnesota	no	learner's permit holders and provisional license holders during the first 12 months after licensing	school bus drivers	all drivers	primary
Mississippi	no	no	no	learner's permit and intermediate license holders	primary
Missouri	no	no	no	drivers 21 and younger	primary
Montana	no	no	no	no	not applicable
Nebraska	no	learner's permit and intermediate license holders younger than 18	no	all drivers	secondary
Nevada	no	no	no	no	not applicable
New Hampshire	no	no	no	all drivers	primary

New Jersey	all drivers	learner's permit and intermediate license holders	school bus drivers	all drivers	primary
New Mexico	no	no	no	no	not applicable
New York	all drivers	no	no	all drivers	primary; secondary for text messaging
North Carolina	no	drivers younger than 18	school bus drivers	all drivers	primary
North Dakota	no	no	no	no	not applicable
Ohio	no	no	no	no	not applicable
Oklahoma	learner's permit and intermediate license holders	no ³	school bus drivers and public transit drivers	learner's permit holders, intermediate license holders, school bus drivers and public transit drivers	primary
Oregon	all drivers	drivers younger than 18	no	all drivers	primary
Pennsylvania	no	no	no	no	not applicable
Rhode Island	no	drivers younger than 18	school bus drivers	all drivers	primary
South Carolina	no	no	no	no	not applicable
South Dakota	no	no	no	no	not applicable
Tennessee	no	learner's permit and intermediate license holders	school bus drivers	all drivers	primary
Texas	drivers in school crossing zones	intermediate license holders for the first twelve months	bus drivers when a passenger 17 and younger is present	bus drivers when a passenger 17 and younger is present; intermediate license holders for first twelve months; drivers in school crossing zones	primary
Utah	all drivers	no	no	all drivers	primary for texting; secondary for talking on a hand-held cellphone ⁴
Vermont	no	drivers younger than 18	no	all drivers	primary
Virginia	no	drivers younger than 18	school bus drivers	all drivers	secondary; primary for school bus drivers
Washington	all drivers	learner's permit and intermediate license holders	no	all drivers	primary
West Virginia	no	drivers younger than 18 who hold either a learner's permit or an intermediate license	no	drivers younger than 18 who hold either a learner's permit or an intermediate license	primary
Wisconsin	no	no	no	all drivers	primary
Wyoming	no	no	no	all drivers	primary

¹The laws in Arkansas and California prohibit police from stopping a vehicle to determine if a driver is in compliance with the law. Clearly, that language prohibits the use of checkpoints to enforce the law, but it has been interpreted as the functional equivalent of secondary provisions that typically state the officer may not stop someone suspected of a violation unless there is other, independent, cause for a stop.

²In Louisiana, all learner's permit holders, irrespective of age, and all intermediate license holders are prohibited from driving while using a hand-held cellphone and all drivers younger than 18 are prohibited from using any cellphone. Effective April 1, 2010 all drivers, irrespective of age, issued a first driver's license will be prohibited from using a cellphone for one year. The cellphone ban is secondary for novice drivers age 18 and older.

³In Oklahoma, learner's permit and intermediate license holders are banned from using a hand-held electronic device while operating a motor vehicle for non-life-threatening emergency purposes.

⁴Utah's law defines careless driving as committing a moving violation (other than speeding) while distracted by use of a hand-held cellphone or other activities not related to driving.

©1996-2011, Insurance Institute for Highway Safety, Highway Loss Data Institute
1005 N. Glebe Road, Suite 800, Arlington, VA 22201 USA | tel 703/247-1500 | fax 703/247-1588

Q&As: Cellphones, texting, and driving

January 2011

[More information on cellphones](#)[Hide all answers](#)**1 | How many people use cellphones?**

Cellphone use in the United States has grown quickly during the past decade. There were about 293 million wireless cellphone subscribers as of June 2010, according to CTIA – The Wireless Association, an industry trade group.¹ That's up 51 percent from 194 million in June 2005 and 3 times the 97 million wireless subscribers in June 2000. Minutes of use have surged to about 2.3 trillion in June 2010 from 195 billion in June 2000.

2 | Do drivers frequently use phones behind the wheel?

Yes, though it's hard to determine accurately just how many drivers use phones. Combining observational and self-reported data on phone use, the federal government estimated that drivers using phones nearly tripled during 2000-08, from 4 to 11 percent, and then declined to 9 percent in 2009. Federal observational data indicate that 5 percent of drivers in 2009 were talking on hand-held phones at any moment during the day. This means about 672,000 passenger vehicles on the road at any moment during the day were driven by people talking on hand-held phones.²

A 2009 Institute telephone survey of 1,219 drivers 18 and older indicates phone use may be somewhat lower than government estimates. Drivers on average reported spending about an hour in the car each day, with about 4 minutes of that time on the phone. This translates into roughly 7 percent of time behind the wheel on the phone.³ The discrepancy between the two estimates may be a result of drivers in the Institute survey understating how much phoning while driving they do because the practice has negative connotations. It also could reflect different methodologies. Government researchers observed hand-held phone use among drivers waiting at intersections during the daytime, then adjusted this for self-reported hands-free use. The Institute's survey estimates self-reported driver phone use on all kinds of roads during all hours.

3 | Who is most likely to talk on a cellphone while driving?

Young drivers ages 16-24 are more likely than other drivers to talk on hand-held cellphones according to daytime observational surveys of drivers the federal government conducted nationwide in 2009. Eight percent of drivers ages 16-24 were observed talking on hand-held phones, compared with 5 percent of those ages 25-69 and 1 percent of drivers 70 and older.² In the Institute's 2009 survey of drivers' self-reported phone use, people younger than 30 spent 16 percent of driving time on the phone, compared with 7 percent for drivers 30-59 years old, and just 2.5 percent for drivers 60 and older.⁴

Men in the Institute's survey reported spending slightly more time on the phone than women (7 percent versus 6 percent). This differs from the government's and other observations that female drivers use cellphones more. Drivers reported using phones more on weekdays and during afternoons and evenings. Use rates were 8 percent during these times.³ This is in line with government observations that use is higher on weekdays.²

4 | Does using a cellphone while driving increase crash risk?

Yes. Two controlled studies link talking on a cellphone directly to increased crash risk. A 2005 Institute study of drivers in Western Australia found cellphone users four times as likely to get into crashes serious enough to injure themselves.⁵ The study used cellphone billing records to verify phone use of crash-involved drivers. Increased risk was similar for males and females, drivers younger than 30 and those 30 and older, and hands-free and hand-held phones. The findings were consistent with 1997 research that showed phone use among Canadian drivers was associated with a fourfold increase in the risk of a property damage crash. The Canadian study also used cellphone billing records to verify phone use of drivers.⁶

5 | How many crashes have been caused by drivers using cellphones?

The federal government estimates that in 2009, 5,474 people were killed and an additional 448,000 were injured in motor vehicle crashes that were reported by police to have involved distracted driving. The government estimates that 18 percent of these deaths and 5 percent of these injuries involved cellphones.⁷ However, these estimates are imprecise and likely underestimate distraction's role in crashes, as many police reports don't have information on distracting events. Police crash reports aren't a reliable way to count cellphone-related collisions because drivers often don't volunteer that they were on the phone.

It is possible to estimate the expected number of crashes linked to phoning while driving. An Institute analysis suggests this practice could account for 22 percent of all crashes, or about 1.3 million in 2008, based on how much phoning while driving motorists admitted to researchers and the estimated risk of driver phone use.³ However, there is a disconnect between estimated crashes and real-world data, which indicate that crashes have been holding steady in recent years, even as cellphone use in general and driver use of phones in particular have proliferated.

About 5.5 million police-reported motor vehicle crashes occurred during 2009, the latest year for which federal data are available. This count doesn't differ much from the approximately 6 million crashes recorded annually during the early 1990s, when cellphones started getting popular, and it is lower than the 6.4 million crashes in 2000, when federal researchers began documenting the increase in phone use while driving.

An increase in cellphone-related crashes isn't showing up in insurance claims either. An analysis by the Highway Loss Data Institute indicates that the frequency of insurance claims for crash damage filed under collision coverage during 1998-2008 hasn't increased, even though driver phone use has escalated.⁸

A 2006 Virginia Tech Transportation Institute study used video cameras to monitor drivers in about 100 vehicles for about a year. Four percent of crashes or near-crashes were attributable to talking on a cellphone, researchers estimated.⁹

6 | Are hands-free cellphones safer?

No, at least not after the conversation begins. Two studies of crashes using cellphone billing records to verify phone use found about a fourfold increase in crash risk with conversing on both hands-free and hand-held phones.^{5,6} The studies were unable to estimate crash risk from different types of hands-free devices. They also were unable to determine whether there was any benefit associated with hands-free devices while placing the call. Experimental research using driving simulators indicates that phone conversation tasks, whether using hand-held or hands-free devices, affect some measures of driving performance.^{10,11} Hands-free phones may eliminate some of the physical distraction of handling phones, but the cognitive distraction from phone conversations remains.

7 | How does cellphone use affect driving performance?

An Institute review of more than 120 cellphone studies, about half of which were experimental studies using driving simulators or vehicles instrumented with video cameras, sensors, and other equipment, found that nearly all reported that some measures of driver performance were affected by the cognitive distractions associated with cellphone tasks.¹¹ Phone conversation tasks typically increased reaction times and travel speeds and increased lane deviations and steering wheel movements. Statistical analyses that aggregated the results of 33 studies and 23 studies, respectively, reported similar findings.^{10,12} Some studies have found that older drivers' performance is more affected by cellphone tasks, particularly their reaction time. Few studies included drivers younger than 18, and evidence is mixed on the effects of phone use for teenage drivers compared with adult drivers. Findings also are mixed on whether driving performance while talking on a cellphone improves with practice. Some simulator studies suggest that the negative impact of phone use on driving performance may lessen with experience.^{13,14} Other simulator research has found no change in performance with practice.¹⁵

Using functional magnetic resonance imaging, researchers at Carnegie Mellon University found a 37 percent reduction in brain activity associated with driving when research subjects listened via a headset to spoken sentences that they judged as true or false while steering in a driving simulator. Researchers concluded that listening and processing information from a phone conversation can draw mental

resources away from driving, worsening driving performance, even when drivers are not holding or dialing a phone.¹⁶

Further evidence comes from a few studies of small samples of people observed during their everyday driving. One study included drivers of 100 vehicles instrumented with video cameras and other monitoring technologies. Only a few serious crashes occurred, but researchers calculated the odds of being in a near-crash or crash were 2.8 times higher when dialing a hand-held phone than when phones weren't being used. The odds of a near-crash or crash were 1.3 times higher when talking on a hand-held phone, although this was not statistically significant. But because drivers spend more time talking on a hand-held phone than dialing, the percentage of crashes and near-crashes estimated to be attributable to talking and dialing on hand-held phones were both about 4 percent.⁹

8 | Do bans on hand-held phones work to reduce driver phone use?

Institute research has documented that all-driver bans on hand-held phoning can have large and lasting effects on phone use. In November 2001, New York became the first state to implement a universal ban on hand-held cellphones. Observed driver hand-held cellphone use declined by an estimated 47 percent immediately after the ban. Use then began going back up, but when measured more than 7 years after the ban, use was 24 percent lower than would have been expected without the ban. Soon after a ban was passed in the District of Columbia in 2004, observed driver hand-held phone use dropped by 41 percent. Nearly five years after the ban, the rate of phone use was 43 percent lower than would have been expected without a ban. Connecticut's ban took effect in 2005. Observed hand-held phone use declined an estimated 76 percent immediately after a ban; more than 3 years later, use was 65 percent lower than would be expected without a ban.¹⁷

In the Institute's telephone survey of cellphone use, drivers in states with hand-held bans were less likely to say they talk on phones while driving. Forty-four percent of drivers in states with bans reported they don't use phones when driving, compared with 30 percent in states without such laws. The percent of drivers who talk on phones and always talk hands-free was 22 in states with all-driver bans on hand-held phones, and 13 in states without all-driver bans.⁴

9 | Do hand-held phone bans reduce crashes?

There is no evidence so far that banning hand-held phone use reduces crashes, even though Institute research demonstrates that bans on hand-held phoning while driving can have big and long-term effects in curbing phone use. A 2009 analysis by the Highway Loss Data Institute found that hand-held bans had no effect on insurance claims. Researchers compared claims for crash damage in 4 jurisdictions before and after hand-held phone use bans, finding steady claim rates before and after laws went into effect.⁸

Many drivers still use hand-held phones where use is banned, and others may simply switch to hands-free phones. Given that crash risk increases substantially with drivers' use of either hand-held or hands-free phones, bans on hand-held cellphones won't eliminate the problem entirely. Laws prohibiting hands-free phones are difficult to enforce, plus drivers may be unfamiliar with restrictions in their state. In the Institute telephone survey, 18 percent of drivers in states with a universal ban on hand-held phone use either believed there was no law or were unsure. The proportion was even higher (48 percent) among drivers in states with a universal texting ban. Many drivers don't believe police pay much attention to them. Only 29 percent of drivers in states with universal hand-held phone bans who knew about the bans and 22 percent of drivers in states with universal texting bans who were aware of the restrictions felt they were strongly enforced.⁴

10 | How common are bans on hand-held cellphones and texting?

Bans are widespread in other countries and are becoming more common in the U.S. Nine states (California, Connecticut, Delaware, Maryland, New Jersey, New York, Oregon, Utah, and Washington) and the District of Columbia have enacted laws that ban drivers of all ages from using hand-held cellphones.

More common in the US are laws that restrict young drivers from using any type of cellphone. Teenage drivers in 28 states and the District of Columbia have such laws. School bus drivers in 19 states and the District of Columbia are restricted from using all cellphones while driving a bus.

In Australia, drivers in Victoria and Tasmania are banned from using all phones, except ones secured in a commercially designed holder fixed to the vehicle that can be operated without touching any part of the phone.

Text messaging is banned for all drivers in 30 states and the District of Columbia. In addition, novice drivers are banned from texting in 8 states (Alabama, Indiana, Maine, Mississippi, Missouri, Oklahoma, Texas, and West Virginia), and school bus drivers are banned from text messaging in 2 states (Oklahoma and Texas).

Cellphone laws in the US

11 | Why do more laws cover only teenage drivers?

Cellphone bans for young drivers are becoming more common amid concerns about the role distractions play in teenagers' elevated crash risk. Distractions of any type are a common factor in crashes of newly licensed 16-year-old drivers.¹⁸ Some research also shows teenage drivers tend to use cellphones and other emerging technologies more than adult drivers.¹⁹ States increasingly have graduated licensing laws that place restrictions on newly licensed drivers, e.g., limiting nighttime driving and the number of passengers a novice driver can carry. Cellphone bans are being added to those restrictions.

See Q&A: Teenagers — graduated driver licensing

More about the licensing law in your state, or any state

12 | Do teenagers comply with cellphone bans?

Young drivers often ignore cellphone restrictions, according to an Institute study of North Carolina's cellphone ban for young beginning drivers. The state bans the use of any telecommunications device by drivers younger than 18 under its graduated licensing system. Observed cellphone use by teenagers leaving high schools in the afternoon changed little from 1-2 months before to 5 months after the restriction took effect on Dec. 1, 2006.²⁰ About 11 percent of teenage drivers were seen using phones before the law. That percentage rose slightly to 12 percent in the postlaw survey. Cellphone use remained steady at about 13 percent at comparison sites in South Carolina, which doesn't restrict teenage drivers' phone use. When observed postlaw, less than 1 percent of teenage drivers in North Carolina were using hands-free phones. About 2 percent were observed dialing or texting and about 9 percent were holding a phone to their ear.

The study coupled driver observations with telephone surveys of North Carolina parents and their teenagers. In postlaw surveys, about two-thirds of teenagers said they knew about their state's law, compared with 39 percent of parents. Three-quarters of teenagers and 95 percent of parents said they approved of the law. The proportion of teenagers who reported using phones while driving declined somewhat following the law. However, of those who owned a phone and admitted to ever talking on the phone while driving, about half admitted they used their phones, if they had driven, on the day prior to the interview. There was no evidence of focused enforcement or publicity of the law. Only 22 percent of teenagers and 13 percent of parents believed the ban was being enforced fairly often or a lot.²⁰

13 | Is cellphone use more distracting to drivers than other tasks?

Evidence is mixed. For example, some experimental studies found that phone conversations are more disruptive than conversations with passengers or adjusting a radio.¹¹ However, two statistical analyses combining the results of multiple experimental studies found similar decrements in reaction time for conversation tasks with passengers and with hand-held or hands-free phones.^{10,12} Two studies reported that talking on cellphones or having a 0.08 percent blood alcohol concentration (BAC) — the legal threshold for impairment — has a comparable effect on some simulated driving tasks.^{21,22} However, the risks associated with alcohol impairment accumulate over the entire duration of a trip, whereas the risks of cellphone use generally apply for only a portion of a trip. In addition, crash risk increases substantially at very high BACs, and the implications of the experimental studies for drivers in their own vehicles is unknown.

14 | Is texting while driving a problem?

Texting in general is on the increase. Annualized text messages soared to about 1.8 trillion in June 2010 from 57 billion in June 2005.¹ Many people report that they text while driving. A 2009 Institute survey found that 13 percent of drivers of all ages have texted while driving, and this jumps to 43 percent among 18-24-year-old drivers.⁴ Similar results were found in other studies.^{23,24}

There hasn't been a lot of research on the safety effects of texting and driving, but three studies of young drivers using driving simulators all found that receiving, and especially sending, text messages impeded drivers' reaction times and lane-keeping ability.^{25,26,27} In a study involving large trucks instrumented with video cameras and other monitoring technology, the odds of a traffic conflict, lane drift, near-crash, or crash were 23 times higher when a truck driver was texting. A limitation is that less than 1 percent of the incidents involved crashes; most were lane drifts or other driver errors. It's unknown how such incidents relate to actual crashes. It also is unclear whether the results generalize to passenger vehicle drivers.²⁸

15 | Do drivers comply with text messaging bans?

So far it appears that drivers, especially young adults, largely shrug off texting bans. An Institute study found that among 18-24 year-olds — the group most likely to text — 45 percent reported texting while driving in states that bar the practice, just shy of the 48 percent of drivers who reported texting in states without bans.⁴ Among drivers 25-29, 40 percent reported texting in states with bans, compared with 55 percent in states without bans.

Many drivers are unclear about the laws in their state. Forty-eight percent of drivers in states with universal texting bans believed there was no law or were unsure. Plus, only 22 percent of drivers who were aware of the restrictions felt they were strongly enforced.⁴

16 | Do bans on driver text messaging reduce crashes?

Not according to research by the Highway Loss Data Institute. A 2010 study examined insurance claims filed for damage to vehicles before and after driver texting bans were enacted in four states. There was no reduction in claim rates relative to comparison states. Rather, there was a significant increase of 7-9 percent in the frequency of claims in 3 of the 4 study states. Increases in the frequency of claims also were found for rated drivers 25 and younger in these 3 states.²⁹

17 | Can technology be used to prevent crashes caused by distracted driving?

Automakers are rolling out crash avoidance systems that warn drivers when they are not paying attention. Some systems may intervene if the system judges that a crash is imminent. Systems like lane-departure warning and forward-collision warning promise to prevent many kinds of distracted driving crashes, not just those that result from cellphone use (see *Status Report*, April 17, 2008). But this isn't a quick fix. Most new vehicles don't have crash avoidance features, and it will take some time before the systems are in wide use as newer vehicles supplant older ones. Plus, the effects of these technologies on real-world crashes have not yet been established.

References

¹CTIA – The Wireless Association. 2010. CTIA's semi-annual wireless industry survey results, June 1985-June 2010. Washington, DC. Accessed at <http://www.ctia.org/advocacy/research/index.cfm/AID/10323>

²National Highway Traffic Safety Administration. 2010. Driver electronic device use in 2009. Report no. DOT HS-811-372. Washington, DC: US Department of Transportation.

³Farmer, C.M.; Braitman, K.A.; and Lund, A.K. 2010. Cellphone use while driving and attributable crash risk. Arlington, VA: Insurance Institute for Highway Safety. February 2010.

⁴Braitman, K.A. and McCartt, A.T. 2010. National reported patterns of driver cellphone use. Arlington, VA: Insurance Institute for Highway Safety.

⁵McEvoy, S.P.; Stevenson, M.R.; McCartt, A.T.; Woodward, M.; Haworth, C.; Palamara, P.; and Cercarelli, R. 2005. Role of mobile phones in motor vehicle crashes resulting in hospital attendance: a case-crossover study. *British Medical Journal* 331 (7514):428.

- ⁶Redelmeier, D.A. and Tibshirani, R.J. 1997. Association between cellular-telephone calls and motor vehicle collisions. *The New England Journal of Medicine* 336:453-58.
- ⁷National Highway Traffic Safety Administration. 2010. Distracted Driving 2009. Report no. DOT HS-811-379. Washington, DC: US Department of Transportation.
- ⁸Highway Loss Data Institute. 2009. Hand-held cellphone laws and collision claim frequencies. *HLDI Bulletin* 26(17). Arlington, VA.
- ⁹Klauser, S.G.; Dingus, T.A.; Neale, V.L.; Sudweeks, J.D.; and Ramsey, D.J. 2006. The impact of driver inattention on near-crash/crash risk: an analysis using the 100-car naturalistic driving study data. Report no. DOT HS-810-594. Washington, DC: National Highway Traffic Safety Administration.
- ¹⁰Caird, J.K.; Willness, C.R.; Steel, P.; and Scialfa, C. 2008. A meta-analysis of the effects of cell phones on driver performance. *Accident Analysis and Prevention* 40:1282-93.
- ¹¹McCartt, A.T.; Hellinga, L.A.; and Braitman, K.A., 2006. Cell phones and driving: review of research. *Traffic Injury Prevention* 7:89-106.
- ¹²Horrey, W.J. and Wickens, C.D. 2006. Examining the impact of cell phone conversations on driving using meta-analytic techniques. *Human Factors* 48:196-205.
- ¹³Shinar, D.; Tractinsky, N.; and Compton, R. 2002. Effects of practice with auditory distraction in simulated driving. *Transportation Research Board 81st Annual Meeting Compendium of Papers* (CD-ROM). Washington, DC: Transportation Research Board.
- ¹⁴Shinar, D.; Tractinsky, N.; and Compton, R. 2005. Effects of practice, age, and task demands on interference from a phone task while driving. *Accident Analysis and Prevention* 37:315-26.
- ¹⁵Cooper, J.M. and Strayer, D.L. 2007. Do driving impairments from concurrent cell-phone use diminish with practice? *Proceedings of the Human Factors and Ergonomics Society 51st Annual Meeting*. Santa Monica, CA: Human Factors and Ergonomics Society.
- ¹⁶Just, M.A.; Keller, T.A.; and Cynkar, J. 2008. A decrease in brain activation with driving when listening to someone speak. *Brain Research* 1205:70-80.
- ¹⁷McCartt, A.T.; Hellinga, L.A.; Strouse, L.M.; and Farmer, C.M. 2009. Long-term effects of hand-held cellphone laws on driver hand-held cellphone use. *Traffic Injury Prevention* 11:133-41.
- ¹⁸Braitman, K.A.; Kirley, B.B.; McCartt, A.T.; and Chaudhary, N.K. 2008. Crashes of novice teenage drivers: characteristics and contributing factors. *Journal of Safety Research* 39:47-54.
- ¹⁹Lee, J.D. 2007. Technology and teen drivers. *Journal of Safety Research* 38:203-13.
- ²⁰Foss, R.D.; Goodwin, A.H.; McCartt, A.T.; and Hellinga, L.A. 2009. Short-term effects of a teenager driver cell phone restriction. *Accident Analysis and Prevention* 41:419-424.
- ²¹Burnes, P.C.; Parkes, A.; Burton, S.; and Smith, R.K. 2002. How dangerous is driving with a mobile phone? Benchmarking the impairment to alcohol. TRL Report 547. Berkshire, United Kingdom: Transport Research Laboratory.
- ²²Strayer, D.L.; Drews, F.A.; and Crouch, D.J. 2003. Fatal distraction? A comparison of the cell-phone driver and the drunk driver. *Proceedings of the Second International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*, 25-30. Iowa City, IA: University of Iowa Public Policy Center.
- ²³Nationwide Insurance. 2008. Driving while distracted, public relations research. Columbus, OH: Nationwide Mutual Insurance Company.
- ²⁴Insurance Research Council. 2010. Public Attitude Monitor 2010: Texting while driving. Malvern, PA: Insurance Research Council.
- ²⁵Hosking, S.; Young, K.; and Regan, M. 2006. The effects of text messaging on young novice driver performance. Monash University Accident Research Center. Report 246. Monash, Australia: Monash University.
- ²⁶Reed, N. and Robbins, R. 2006. The effect of text messaging on driver behavior: a simulator study. Published report PPR 367. Berkshire, United Kingdom: Transport Research Laboratory.
- ²⁷Drews, F.A.; Yazdani, H.; Godfrey, C.N.; Cooper, J.M.; and Strayer, D.L. 2009. Text messaging during simulated driving. *Human Factors* 51:762-70.
- ²⁸Olson, R.L.; Hanowski, R.J.; Hickman, J.S.; and Bocanegra, J. 2009. Driver distraction in commercial vehicle operations. Report No. FMCSA-RRR-09-242. Washington, DC: Federal Motor Carrier Safety Administration.
- ²⁹Highway Loss Data Institute. 2010. Texting laws and collision claim frequencies. *HLDI Bulletin* 27(11). Arlington, VA.

©1996-2011, Insurance Institute for Highway Safety, Highway Loss Data Institute
1005 N. Glebe Road, Suite 800, Arlington, VA 22201 USA | tel 703/247-1500 | fax 703/247-1588