

<b>Date:</b> March 11, 2014	<b>POLICY BRIEF</b> PREPARED FOR THE BOARD OF DIRECTORS	
<b>Staff:</b> Dan Sapienza		

## [HB14-1225 – REQUIRE HANDS-FREE TELEPHONES WHEN DRIVING](#)

Concerning Use of Wireless Telephone While Driving

### Bill Details

<b>Bill Title:</b>	Require Hands-Free Telephones When Driving – Concerning Use of Wireless Telephone While Driving
<b>Bill Sponsors:</b>	House – <b>Melton</b> , Fields, Fischer, Ginal, Hullinghorst, Tyler Senate –
<b>Committee:</b>	House Transportation and Energy
<b>Bill History:</b>	01/30/2014 – Introduced in House- Assigned to House Transportation and Energy
<b>Next Action:</b>	Hearing – House Transportation and Energy – Wednesday, March 12

### Bill Summary

HB14-1225 makes several changes to Colorado’s distracted driving law — C.R.S. 42-4-239 — including new prohibitions on mobile applications and making voice calls in certain, limited circumstances. Under current law, while minors are prohibited from using phones while driving, those over 18 are only prohibited from using phones for text messages while driving. This bill adds mobile applications to the list of prohibited activities for adults. In addition, the bill prohibits making voice calls by adults without a hands-free device, but a person can only be cited for this under two situations:

1. The driver was stopped by a law enforcement official for another traffic violation in a school or construction and the official saw the use of the phone by the driver, or
2. If the voice call on the telephone without a hands-free device was a cause of a traffic accident.

### Background

According to the National Highway Traffic Safety Administration, in 2011, 21,000 people were injured in crashes that involved cell phones at the time of the crash.<sup>1</sup> Also in that year, phone use was associated with at least 350 fatal crashes. Despite the risks involved, many studies across the nation show that drivers continue to use mobile phones for voice calls.

Phone-related distracted driving continues to be an issue in communities around Colorado. About 46% of Larimer County residents report sometimes, usually, or always using a cell phone while driving, according to the 2013 Community Health Survey performed by the Health District of Northern Larimer County.<sup>2</sup> Only 17% of respondents in that survey reported never using a cell phone while driving. Text messaging is less common, with 64% of respondents reporting never text messaging while driving.

As studies demonstrate the dangers associated with distracted driving, there have been various attempts to increase safety. Most distracted driving prevention efforts have focused on the visual and manual distraction associated with text messaging or use of a handheld mobile phone, and technological adaptations have been introduced. Hands-free devices, such as wireless headsets and car-integrated systems are frequently used as an alternative to handheld phone use. However, some research has shown that these do not increase driver safety and may instead increase driver confidence without decreasing distraction.

### Distracted Driving and Mobile Phone Use

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In 2012, CTIA, The Wireless Association, reported that there were more than 326 million wireless subscriber connections in the United States.<sup>3</sup> The number of wireless subscriptions grew from 20% of the population having subscriptions in 1997 to 102.2% of the population having subscriptions in 2012. With this growth in wireless use, the number of drivers using the devices has also grown; the National Traffic Highway Safety Administration reports that any given moment in the United States, about 660,000 drivers are currently using their cell phones.<sup>4</sup>

To learn more about the impact of the growing trend of mobile phone related distracted driving, researchers have sought to evaluate the potential risks associated with this behavior, including impacts on driving performance, cognitive distraction, and driver response time.

In 1997, the New England Journal of Medicine (NEJM) published a study in which the authors found that “using a cellular telephone was associated with a risk of having a motor vehicle collision that was about four times as high as that among the same drivers when they are not using their cellular telephone.” Such a risk factor, the authors noted, was similar to the hazard associated with driving while legally intoxicated.<sup>5</sup> Researchers for the University of Utah (2006), using subjects performing in driving simulators, found a significant decrease in reaction time for drivers who were using cell phones while driving.<sup>6</sup> “When drivers were conversing on a cell phone,” they noted, “they were involved in more rear-end collisions [and] their initial reaction time was slowed by 9%.” Their data suggested that “the impairment associated with cell phone drivers may be as great as those commonly observed with intoxicated drivers.”

Virtually all the studies reviewed by NHTSA in its 2008 Review of the Current State-Of-Knowledge of Driver Distraction found significant degradation in driving performance when drivers used cell phones.<sup>7</sup> A 2003 study from the Harvard Center for Risk Analysis (HCRA) estimated that eliminating the use of cell phones while driving could lead to a 6% decrease in the number of vehicle crashes<sup>8</sup>, equating to a decrease of 2,600 deaths and around 12,000 serious injuries, nationwide, each year. The HCRA study authors did caution that the calculation of estimates of the proportion of motor vehicle crashes attributable to cell phone usage is complicated and that some of the input data is uncertain.

Subsequent research has reiterated these dangers of mobile phone use. In addition, some research has looked at the impacts of newer technological developments, such as voice to speech applications and other hands-free systems. While proposed as solutions to the dangers of phone use while driving, these solutions present new dangers.

### **Hands-free vs. Hand-held mobile phone use and distracted driving**

Similar to many laws around the country, HB14-1225 allows for use of a phone with a hands free device. However, some critics of this concept argue that hands-free devices are not safer than hand-held phones, a claim that is supported by a good deal of research. If hands-free devices are not in fact safer than hand-held devices, then promoting one over the other in law might encourage drivers to engage in dangerous activity with the incorrect belief that they are being safe and in control of their vehicle.

A 2006 meta-analysis by Horrey and Wickens evaluated the impact of cell-phone conversations on driving performance and found that cell phone use was associated with significant costs in performance, especially relating to response time.<sup>9</sup> These effects were the same for hand-held and hands-free devices, contrary to the popular belief that the majority of the risk with mobile phones related to the manual and visual aspects of holding the phone or dialing. The analysis concluded that the primary costs were attributable to the

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cognitive aspects of the conversations and that hands-free cell phones do not substantially reduce these costs.

To further examine this, researchers in 2007 looked at the brain activity, via functional magnetic resonance imaging, of individuals who were tasked with listening to spoken sentences while performing simulated driving exercises.<sup>10</sup> Researchers saw a significant driving performance degradation while the drivers listened to spoken sentences, which correlated with a 37% parietal lobe activation decrease during these exercises. The researchers concluded that language comprehension associated with conversations draws mental resources from driving performance, which indicates whether a phone is hand-held or hands-free, the distraction impacts driving performance.

For the NHTSA, the Virginia Tech Transportation Institute performed a naturalistic study of frequent cell-phone using drivers, with less definite results than had previously been reported regarding hands-free vs. hand-held phone use.<sup>11</sup> The study used data systems integrated into study participants' vehicles over the course of 31 days. The systems recorded the driver's face, the roadway, and various data then compared this data to telephone records to see when phone use occurred. The study is one of the first to use real-world observations of driver activity, but was limited by the inability of researchers to constantly observe the test subjects for risk; 6 second samples of phone use were evaluated for near-crash situations. The study found an increased risk of safety critical events (defined as crashes, near-crashes, and crash-relevant conflicts) when performing visual and manual phone tasks, but no direct increased risk when just talking on the phone, regardless of type. However, researchers noted that even hands-free devices involved some sort of visual and manual task more than half of the time, increasing the risk greatly.

One primary concern if driving ability and risk are roughly equal for hands-free and hand-held phone use is the driver's awareness of the risk. Some studies have indicated that drivers that use hands-free devices are more confident in their driving ability, incorrectly believing that their driving ability is less compromised than it would be by a hand-held device. It is possible that drivers holding a phone recognize the potential distraction and risk, whereas the hands-free device gives a false sense of security.

### **Public Opinion**

On the 2013 Community Health Survey conducted by the Health District of Northern Larimer County, Larimer County residents were asked their opinions on policies that would prohibit the use of cell phones while driving. 71% of respondents favored a prohibition (47% strongly favored and 24% somewhat favored), while only 20% opposed the prohibition (7% strongly opposed and 13% somewhat opposed).

Nationally, there is also strong support for bans on cell phone use while driving. According to the National Highway Traffic Safety Administration's 2012 National survey on Distracted Driving Attitudes and Behaviors, 74 percent of drivers support bans on hand-held phone use while driving and 94% support bans on texting while driving.<sup>12</sup>

### **Previous Colorado Legislation and Existing Law, Bill Details**

In 2009, a bill creating a broad prohibition on cell phone use was introduced in the General Assembly. As introduced, HB09-1094 banned all cell phone use by minors, banned all cell phone use by a school bus drivers and drivers of vehicles regulated by the Public Utilities Commission (buses, limos, etc.), banned cell phone use without a hands-free device by all drivers, and made these prohibitions a primary offense, allowing law enforcement to pull drivers over for visible violations.

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Through the legislative process, there was opposition to various parts of this bill and the final version had little resemblance to the original legislation.<sup>13</sup> The bill signed by the governor on June 1, 2009 included the prohibition on all cell phone use by minors, but drivers 18 years or older are only prohibited from using mobile phones for text messaging or “similar forms of data entry.”

Since that 2009 bill, the statutes regarding distracted driving remain unchanged. Minors are prohibited from using mobile phones while driving, while adults are prohibited from text messaging. There is an exemption for these uses to contact a public safety entity or in an emergency situation. These offenses are considered primary offenses, meaning that a law enforcement officer may contact a potential offender when the officer witnesses the use of the mobile phone. A first offense is a \$50 fine and a second (or more) offense is a \$100 fine.

In 2012, journalists at CBS4 looked at enforcement of the 2009 Colorado law over the years it had been in effect.<sup>14</sup> Police departments reported only a small number of citations issued: between 2009 and late 2012, five adult citations in Aurora and 32 adult citations and one teen citation in Lakewood. The Denver Police Department was considerably higher, issuing 165 citations in 2012, made possible by a nearly \$40,000 federal grant to combat distracted driving. The small number of citations was partially explained by drivers ability to hide their cell phone use when near a marked police vehicle. In addition, some officers issue citations for other offenses such as careless driving or speeding instead of for the cell phone violation with a \$50 fine.

#### **Other state laws<sup>15</sup>**

- **Hand-held Cell Phone Use** – 12 states, D.C., Puerto Rico, Guam, and the U.S. Virgin Islands prohibit all drivers from using hand-held cell phones while driving.
  - **School/Construction Zones** – Arkansas and Texas prohibit use of hand-held phones in school zones and Arkansas also prohibits hand-held phone use in construction zones.
- **All Cell Phone Use** – No state bans all cell phone use for all drivers, but 37 states and D.C. ban all cell phone use by novice drivers, and 20 states and D.C. prohibit it for school bus drivers.
- **Text Messaging** – 42 states, D.C., Puerto Rico, Guam, and the U.S. Virgin Islands ban text messaging for all drivers. All but 4 have primary enforcement.
  - An additional 5 states prohibit text messaging by novice drivers.
  - 3 states restrict school bus drivers from texting.

#### **HB14-1225**

HB14-1225 changes Colorado’s distracted driving statute in two primary ways: prohibiting the use of mobile phone applications and prohibiting hand-held mobile phone use by adults in several specific situations.

#### **Mobile Phone Application Use Prohibition**

Persons aged 18 years and older, under current law, are prohibited from using a mobile phone for the “purpose of engaging in text messaging or other similar forms of manual data entry or transmission” while driving.<sup>16</sup> This provision was added to law in 2009, not long after devices such as the Apple iPhone that integrated software applications became widely available.

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In response to the changing technology of mobile phones, HB14-1225 prohibits use of a mobile phone for the “purpose of engaging in text messaging, *using an application*, or other similar forms of manual data entry or transmission” while driving.<sup>17</sup> This addition only impacts drivers over age 18.

Drivers under 18 may not “use a wireless telephone,” with use defined as, “talking on or listening to a wireless telephone or engaging the wireless telephone for text messaging or other similar forms of manual data entry or transmission.”<sup>18</sup> This definition is not amended with the current legislation, as introduced, to include use of applications.

### **Hand-held Mobile Phone Prohibition**

As first introduced, the 2009 bill to restrict phone use by drivers included a prohibition on the use of mobile phones by those over age 18 unless a hands-free device was used.<sup>19</sup> After passage, this provision was removed and only those under age 18 were prohibited from using a mobile phone for making a voice call.

HB14-1225 first provides a definition of hands-free device: “a wireless telephone or a motor vehicle equipped with a device that allows a person to use a wireless telephone without the use of the person's hands.” The bill then prohibits those 18 years or older from “making or receiving a phone call” while driving, unless using a hands-free device.

Unlike the other provisions of the distracted driving law, this prohibition on hand-held phone use is not a primary offense, which would allow a law enforcement official to pull the driver over and issue a citation absent other offenses. A person can only be cited for this under two situations:

1. The driver was stopped by a law enforcement official for another traffic violation in a school or construction zone and the official saw the use of the phone by the driver, or
2. If the voice call on the telephone without a hands-free device was a cause of a traffic accident.<sup>20</sup>

To issue a citation under the first requirement, the officer must pull a driver over for another traffic violation in a school zone or construction zone and the officer must have seen the use of the hand-held phone. The second requirement requires that the use of the hand-held telephone for making or receiving a call was the cause of a traffic accident, which would likely be almost impossible to prove.

A first violation of this provision is punishable by a \$50 fine; subsequent violations are punishable by a \$100 fine.

### **Specific considerations**

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#### **Allowing hands-free devices perpetuates the myth that these devices are safer**

In a 2009 survey performed by the AAA Foundation for Traffic Safety, two-thirds of Americans who use cell phones while driving believe it is safer to talk on a hands-free cell phone.<sup>21</sup> Bluetooth.com features a webpage devoted to hands-free calling, advocating for hands-free devices in response to laws around the nation and to encourage their use to “help you talk and drive smarter.”<sup>22</sup> Another Bluetooth.com page tells drivers, “Bluetooth enabled wireless headsets and hands-free car systems have always helped drivers focus on the road.”<sup>23</sup>

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Studies have repeatedly failed to show an improvement in driver safety when using hands-free devices over hand-held phones. If hand-held devices are prohibited, then sellers of these devices will be able to use the state’s prohibition as an encouragement to potential buyers and encourage their increased use, while a safety risk remains.

### **HB14-1225 does not specifically prohibit mobile phone application use by minors**

As noted above, the prohibition in HB14-1225 on application use only applies to those aged 18 or older. Minors are prohibited from using phones, but the current definition of “use” does not include applications. This disparity could likely be interpreted by courts as intentional.

### **Hands-free mobile applications are also a great safety risk<sup>24</sup>**

The language of the prohibition in HB14-1225 indicates that applications are, like text messaging, a form of manual data entry or transmission. This clarification is important, but fails to consider the growing evidence that voice-controlled mobile applications and texting can be a serious driving hazard. A 2013 study of voice-to-text use while driving found that driver reaction times doubled compared to undistracted driving and the length of distraction was greatly increased compared to manual text messaging.<sup>25</sup> If HB14-1225 only applies to applications that require manual interaction, this excludes a significantly distracting non-manual use of mobile applications.

Many automobiles can be outfitted with integrated phone systems, allowing users to control their mobile phones via voice, integrated controls, and touch-screens. Additionally, many car systems have built-in systems that operate like applications found in phones, such as navigation systems. HB14-1225 would prohibit the use of a phone’s navigation system but would allow drivers to use other devices with the same functionality that are equally distracting.

### **About this Summary**

This summary was prepared by Health District of Northern Larimer County staff to assist the Health District Board of Directors in determining whether to take an official stand on various health-related issues. The Health District is a special district of the northern two-thirds of Larimer County, Colorado, supported by local property tax dollars and governed by a publicly elected five-member board. The Health District provides medical, mental health, dental, preventive and health planning services to the communities it serves. For more information about this summary or the Health District, please contact Dan Sapienza, Policy Coordinator, at (970) 224-5209, or e-mail at dsapienza@healthdistrict.org.

<sup>1</sup> US. Department of Transportation, Traffic Safety Facts. Distracted Driving 2011. Available at: <http://www.distraction.gov/download/811737.pdf>

<sup>2</sup> Health District of Northern Larimer County, 2013 Community Health Survey.

<sup>3</sup> CTIA, The Wireless Association. Wireless Quick Facts. Accessed March 10, 2014, available at: <http://www.ctia.org/your-wireless-life/how-wireless-works/wireless-quick-facts>

<sup>4</sup> Distraction.gov, Official U.S. Government Website for Distracted Driving. What is Distracted Driving? Accessed March 10, 2014, available at: <http://www.distraction.gov/content/get-the-facts/facts-and-statistics.html>

<sup>5</sup> Redelmeier, D. and Tibshirani, R. (1997). Association between cellular-telephone calls and motor vehicle collisions. *NEJM*. vol. 336, #7: 453-458.

<sup>6</sup> Stayer, D., Drews, F., and Crouch, D. (2006). A comparison of the cell phone driver and the drunk driver. *Human Factors*. Vol. 48, #2: 381-389.

<sup>7</sup> Ranney, T. (2008). Driver distraction: a review of the current state-of-knowledge. NHTSA. DOT HS 810 787. [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov)

<sup>8</sup> Cohen, J. and Graham, J. (2003). A revised economic analysis of restrictions on the use of cell phones while driving. *Risk Analysis*. Vol. 23, #1: 5-17; (15).

<sup>9</sup> Horrey, W. and Wickens, D. Examining the Impact of Cell Phone Conversations on Driving Using Meta-Analytic Techniques.

<sup>10</sup> Just, M. et al, A Decrease in brain activation associated with driving when listening to someone speak.

<sup>11</sup> The Impact of Hand-Held And Hands-Free Cell Phone Use on Driving Performance and Safety-Critical Event Risk Final Report

<sup>12</sup> National Highway Traffic Safety Administration, NHTSA Survey Finds 660,000 Drivers Using Cell Phones or Manipulating Electronic Devices While Driving At Any Given Daylight Moment. April 5, 2013. Accessed March 10, 2014, available at: <http://www.dot.gov/briefing-room/nhtsa-survey-finds-660000-drivers-using-cell-phones-or-manipulating-electronic-devices>

<sup>13</sup> Ingold, J. and Bartels, L. Cellphone bill retooled to target teens, texting. Denver Post, May 5, 2009. Accessed March 10, 2014, available at: [http://www.denverpost.com/ci\\_12294701?source=pkg](http://www.denverpost.com/ci_12294701?source=pkg)

<sup>14</sup> CBS4, CBS4 Investigation Finds Spotty Enforcement Of Distracted Driving Law. Accessed March 10, 2014, available at: <http://denver.cbslocal.com/2012/11/07/cbs4-investigation-finds-spotty-enforcement-of-distracted-driving-law/>

<sup>15</sup> Governors Highway Safety Association, Distracted Driving Laws, March 2014. Accessed March 10, 2014, available at: [http://www.ghsa.org/html/stateinfo/laws/cellphone\\_laws.html](http://www.ghsa.org/html/stateinfo/laws/cellphone_laws.html)

<sup>16</sup> C.R.S. § 42-4-239(4)

<sup>17</sup> House Bill 14-1225, Introduced. Accessed March 10, 2014, available at: [http://www.leg.state.co.us/Clitics/CLICS2014A/csl.nsf/fsbillcont3/7D4AEA8FFE6C25E87257C360075DE92?Open&file=1225\\_01.pdf](http://www.leg.state.co.us/Clitics/CLICS2014A/csl.nsf/fsbillcont3/7D4AEA8FFE6C25E87257C360075DE92?Open&file=1225_01.pdf)

<sup>18</sup> C.R.S. §§ 42-4-239(2) and (1)(c)

<sup>19</sup> House Bill 09-1094, Introduced. Accessed March 10, 2014, available at: [http://www.leg.state.co.us/clitics/clitics2009a/csl.nsf/fsbillcont3/349F9CCA2B83CD5087257537001A2BB0?open&file=1094\\_01.pdf](http://www.leg.state.co.us/clitics/clitics2009a/csl.nsf/fsbillcont3/349F9CCA2B83CD5087257537001A2BB0?open&file=1094_01.pdf)

<sup>20</sup> <sup>20</sup> House Bill 14-1225, Introduced, Page 2, Lines 5-16.

(6) (c) AN OPERATOR OF A MOTOR VEHICLE SHALL NOT BE CITED FOR A VIOLATION OF SUBSECTION (3.5) OF THIS SECTION UNLESS EITHER:

(I) THE DRIVER WAS STOPPED BY A LAW ENFORCEMENT OFFICER FOR AN ALLEGED VIOLATION OF ARTICLES 1 TO 4 OF THIS TITLE OTHER THAN A VIOLATION OF THIS SECTION, THE LAW ENFORCEMENT OFFICER SAW THE OPERATOR USE A WIRELESS TELEPHONE, AS DEFINED IN PARAGRAPH (c) OF SUBSECTION (1) OF THIS SECTION, AND THE VIOLATION OCCURRED IN A SCHOOL ZONE AS DEFINED IN SECTION 42-4-615 OR A MAINTENANCE, REPAIR, OR CONSTRUCTION ZONE THAT IS DESIGNATED BY THE DEPARTMENT OF TRANSPORTATION OR OTHER PUBLIC ENTITY PURSUANT TO SECTION 42-4-614; OR

(II) THE VIOLATION WAS A CAUSE OF A TRAFFIC ACCIDENT.

<sup>21</sup> <http://www.alertdriving.com/home/fleet-alert-magazine/north-america/majority-americans-wrongly-believe-hands-free-cell-phones-are-safer-hand-held-devices>

<sup>22</sup> Bluetooth®, Handsfree Calling: Bluetooth® devices to help you talk and drive smarter. Accessed March 10, 2014, available at: <http://www.bluetooth.com/Pages/Handsfree-Calling.aspx>

<sup>23</sup> Bluetooth®, Drive Smart, Drive Safe: Stay smart, stay safe, stay connected. Accessed March 10, 2014, available at: <http://www.bluetooth.com/Pages/Drive-Smart.aspx>

<sup>24</sup> Poeter, D., California Court Okays Checking Map Apps While Driving. PC Magazine, February 28, 2014. Accessed March 10, 2014, available at: <http://www.pcmag.com/article2/0,2817,2454356,00.asp>

<sup>25</sup> Yager, C., An Evaluation Of The Effectiveness Of Voice-To-Text Programs At Reducing Incidences Of Distracted Driving. Texas A&M Transportation Institute (for the U.S. Department of Transportation). 2013. Accessed March 10, 2014, available at: <http://d2dtl5nnlpr0r.cloudfront.net/swutc.tamu.edu/publications/technicalreports/600451-00011-1.pdf>