

Reducing Distracted Driving

Regulation and Education to Avert Traffic Injuries and Fatalities

Peter D. Jacobson, JD, MPH

Lawrence O. Gostin, JD

MOTOR VEHICLE DRIVERS ARE INCREASINGLY USING electronic devices while driving for activities such as calling or sending text messages (texting) from cell phones, watching video, and searching the Internet. Automakers are also incorporating electronic devices into standard vehicle design, including dashboard Internet and satellite connections. Because these devices are integrated into everyday life, drivers mistakenly assume they can be used safely while operating a motor vehicle. Despite their dissimilarities, each of the devices distracts a driver's attention (some more than others), posing a highway safety hazard. In response, cities, states, and the federal government are enacting "distracted driving" laws and regulations. What evidence exists about the risks distracted drivers pose and how to avert them, and what are the respective responsibilities of government, industry, and drivers?

Risks of Distracted Driving

The National Highway Traffic Safety Administration (NHTSA) reported that 5870 persons died (16% of all fatalities) and an estimated 515 000 individuals were injured in police-reported crashes involving driver distraction in 2009.¹ The General Estimates System estimated that 21% of all reported injury crashes involved distracted driving. Using naturalistic driving data (with cameras tracking driving behavior), the Federal Motor Carrier Safety Administration found that texting while driving had the highest odds ratio of a serious vehicular crash relative to 16 other activities that draw a driver's attention from the highway—23.2 times higher than nontexting drivers—and that when texting, drivers take their eyes off the road for 4.6 of 6 seconds.²

While dialing a mobile phone, drivers of light vehicles (cars, vans, and pickup trucks) were 2.8 times as likely as nondistracted drivers to have a crash or near crash, and commercial truck drivers were 5.9 times as likely.³ This research supports earlier findings that young drivers who text spend up to 400% more time with their eyes off the road than drivers who do not text,⁴ have 6-fold greater odds of a collision, and in simulated driving have impaired lateral and forward vehicle control.⁵

A meta-analysis of 125 studies confirmed that cell phone conversations while driving were associated with impaired reaction time and showed no differences in risk between hands-free and handheld phones.⁶ According to the Highway Loss Data Institute, the benefits of banning the use of handheld phones are outweighed by the increased use of similarly distracting hands-free devices. The institute found no significant reductions in traffic crashes in states that enacted handheld cellular phone bans relative to states that had not.⁷ Additional research is therefore needed to determine whether reduced cell phone use actually lowers crash rates or whether distracted driving legislation simply fails to significantly reduce driver distraction.

Distracted Driving Laws and Regulation

Reducing distracted driving requires concerted action at every level of government. Historically, states and localities hold the primary constitutional responsibility for traffic safety. Since 2007, 34 states have enacted distracted driving legislation, with additional states considering adoption. Many municipalities also have passed ordinances restricting the use of electronic devices while driving, ranging in size from small towns (eg, Walton Hills, Ohio) to large cities (eg, Chicago, Illinois, and the District of Columbia).

The federal government plays an important role in highway safety because vehicle traffic moves across state lines. For example, Congress conditions the receipt of highway funds on states' acceptance of a 21-year-old drinking age, whereas the NHTSA sets vehicle safety standards. Although Congress has not yet enacted distracted driving legislation, it could condition the receipt of highway funds on states' adoption of distracted driving restrictions in bills currently under consideration.

The US Department of Transportation issued regulatory guidance in January 2010 prohibiting text messaging by commercial motor vehicle drivers.⁸ President Obama also issued an executive order in 2009 directing federal agencies to proscribe text messaging by federal employees while driving on official government business.⁹

Author Affiliations: Department of Health Law and Policy and Center for Law, Ethics, and Health, University of Michigan School of Public Health, Ann Arbor (Mr Jacobson); O'Neill Institute for National and Global Health Law, Georgetown University Law Center, Washington, DC (Mr Gostin).

Corresponding Author: Lawrence O. Gostin, JD, O'Neill Institute for National and Global Health Law, Georgetown University Law Center, 600 New Jersey Ave NW, Washington, DC 20001 (gostin@law.georgetown.edu).

Distracted driving legislation varies considerably. The broadest laws proscribe the use of any portable electronic device while driving. More commonly, legislation prohibits only using cell phones, sending or reading text messages, or e-mailing while driving. Other legislation proscribes video images within the driver's view.

State and local laws, however, often have limited reach. Many laws allow the use of hands-free devices; others apply only to minor or novice drivers; and some ban the use of electronic devices only while driving in school zones. State and local laws commonly exempt law enforcement or emergency response personnel and drivers sending messages to them. Significantly, there are additional likely sources of driver distraction, such as eating, drinking, smoking, reading, and grooming, that extant law does not directly target.

Enforcement and Health Information. States with primary seat belt enforcement laws have lower fatality rates than those with secondary enforcement. The distinction is that primary enforcement allows police to issue citations when drivers or passengers fail to use seat belts, while secondary enforcement means that law enforcement officers can only issue a seatbelt citation if the car is stopped for another reason, eg, reckless driving.

Approximately 65% of states that ban handheld phone use and 90% of states that ban texting while driving permit primary enforcement.¹⁰ Research demonstrates that well-publicized bans on the use of handheld phones have significantly reduced use, but many drivers switch to hands-free devices, which are equally dangerous. Thus, vigorous health education and enforcement campaigns are needed to sustain longer-term behavior change. This is particularly true for young drivers, who often continue to use cell phones despite legal prohibitions.

Constitutionality. Driving is a privilege, not a right. Consequently, distracted drivers have a limited expectation of privacy that yields to government's obligation to improve highway safety. Courts have consistently upheld mandates on drivers (eg, seat belts and motorcycle helmets), and would surely find that the government's interests in protecting the population from distracted drivers outweigh individual liberties. The Supreme Court has similarly upheld congressional requirements for states to adopt safety standards as a condition of federal funding.

Design Changes: The Role of Automakers

Altering individual behavior is often difficult, particularly when the public gains satisfaction from mobile communications. Design changes can often prove more effective because they do not rely on individual compliance. Manufacturers, therefore, have a responsibility to improve safety; for example, by refraining from installing communication devices in vehicles. Alternatively, manufacturers could install technologies to deactivate these devices while the vehicle is in motion. History demonstrates that the automobile industry has been slow to adopt safety technologies such as seat belts and passive re-

straints. In the absence of self-regulation, Congress could consider empowering the Department of Transportation to impose standards for communication devices in new vehicles.

Policies to Reduce Distracted Driving

Electronic devices have immense public utility, improving communication in social and commercial interactions. Indeed, some electronic devices may be safer, such as use of global positioning systems rather than having drivers rely on printed maps. Many individuals also claim a liberty interest in using electronic devices and resist governmental interference. Nevertheless, distracted drivers pose serious risks to themselves and other road users (drivers, passengers, and pedestrians). A combined program of legislative restrictions, educational campaigns, and manufacturer design changes offers the best prospect to improve highway safety.

Primary enforcement laws can change social norms but must be augmented with health education. Because distracted driving has economic and social consequences for families, schools, and employers, engaging broader society in conveying key messages is essential. Additionally, manufacturers should either voluntarily agree not to install electronic devices or install deactivation systems if drivers attempt to use the devices while the car is in motion. If the automotive industry fails to act, policy makers should consider regulation. New technologies are hardly the sole distractions for drivers, but they present undeniable dangers to public safety that warrant urgent attention by policy makers.

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