



Distracted Driving

WHAT RESEARCH SHOWS AND WHAT STATES CAN DO

This report was made possible by a grant from



Executive summary

This report reviews and summarizes distracted driving research available as of January 2011 to inform states and other organizations as they consider distracted driving countermeasures. It concentrates on distractions produced by cell phones, text messaging, and other electronic devices brought into the vehicle. It also considers other distractions that drivers choose to engage in, such as eating and drinking, personal grooming, reading, and talking to passengers. It addresses distractions associated with vehicle features only briefly. They have been studied extensively by automobile manufacturers, but states have little role in addressing them.

Distraction occurs when a driver voluntarily diverts attention to something not related to driving that uses the driver's eyes, ears, or hands.

What is distracted driving? There are four types of driver distraction:

- Visual – looking at something other than the road
- Auditory – hearing something not related to driving
- Manual – manipulating something other than the wheel
- Cognitive – thinking about something other than driving

Most distractions involve more than one of these types, with both a sensory – eyes, ears, or touch – and a mental component. For this report, distraction occurs when a driver voluntarily diverts attention to something not related to driving that uses the driver's eyes, ears, or hands.

How often are drivers distracted? Driver distraction is common in everyday driving and in crashes.

- Drivers on the road: Most drivers in surveys reported that they sometimes engaged in distracting activities. A study that observed 100 drivers continually for a full year found that drivers were distracted between one-quarter and one-half of the time.
 - Cell phone use: In recent surveys, about two-thirds of all drivers reported using a cell phone while driving; about one-third used a cell phone routinely. In observational studies during daylight hours in 2009, between 7% and 10% of all drivers were using a cell phone.
 - Texting: In recent surveys, about one-eighth of all drivers reported texting while driving. In observational studies during daylight hours in 2009, fewer than 1% of all drivers were observed to be texting.

Executive summary

- Drivers in crashes: At least one driver was reported to have been distracted in 15% to 30% of crashes. The proportion of distracted drivers may be greater because investigating officers may not detect or record all distractions. In many crashes it is not known whether the distractions caused or contributed to the crash.

How does distraction affect driver performance? Experimental studies show conclusively that distractions of all types affect performance on tasks related to driving. But experimental studies cannot predict what effect various distractions have on crash risk.

How does distraction affect crash risk? The limited research suggests that:

- Cell phone use increases crash risk to some extent but there is no consensus on the size of the increase.
- There is no conclusive evidence on whether hands-free cell phone use is less risky than hand-held use.
- Texting probably increases crash risk more than cell phone use.
- The effects of other distractions on crash risk cannot be estimated with any confidence.

Are there effective countermeasures for distracted driving? There are no roadway countermeasures directed specifically at distracted drivers. Many effective roadway design and operation practices to improve safety overall, such as edgeline and centerline rumble strips, can warn distracted drivers or can mitigate the consequences if they leave their travel lane.

Vehicle countermeasures to manage driver workload, warn drivers of risky situations, or monitor driver performance have the potential to improve safety for all drivers, not just drivers who may become distracted. Some systems are beginning to be implemented in new vehicles and others are still in development. Their ultimate impact on distracted driving cannot be predicted.

Countermeasures directed to the driver offer an opportunity to reduce distracted driving incidence and crashes in the next few years. They have concentrated on cell phones and texting through laws, communications campaigns, and company policies and programs. Systems to block or limit a driver's cell phone calls are developing rapidly but have not yet been evaluated.

In summary, the limited research on these countermeasures concludes that:

- Laws banning hand-held cell phone use reduced use by about half when they were first implemented. Hand-held cell phone use increased subsequently but the laws appear to have had some long-term effect.
- A high-visibility cell phone and texting law enforcement campaign reduced cell phone use immediately after the campaign. Longer-term effects are not yet known.
- There is no evidence that cell phone or texting bans have reduced crashes.

Laws banning hand-held cell phone use reduced use by about half when they were first implemented.

- Distracted driving communications campaigns and company policies and programs are widely used but have not been evaluated.

What can states do to reduce distracted driving? States should consider the following activities to address distracted driving. While each has been implemented in some states, there is no solid evidence that any is effective in reducing crashes, injuries, or fatalities.

- Enact cell phone and texting bans for novice drivers. Novices are the highest-risk drivers. A cell phone ban supports other novice driver restrictions included in state graduated licensing programs and helps parents manage their teenage drivers. As of June 2011, 30 states and the District of Columbia prohibited the use of all cell phones by novice drivers and 41 states and the District of Columbia prohibited texting by novice drivers. But there is no evidence that novice driver cell phone or texting bans are effective.
- Enact texting bans. Texting is more obviously distracting and counter to good driving practice than cell phone use. As of June 2011, 34 states and the District of Columbia had enacted texting bans for all drivers. But texting bans are difficult to enforce.
- Enforce existing cell phone and texting laws. Enforcement will increase any law's effect, while failing to enforce a law sends a message that the law is not important. But enforcing cell phone or texting laws will divert resources from other traffic law enforcement activities.
- Implement distracted driving communication programs. Cell phone and texting laws should be publicized broadly to increase their effects. Other communication and education activities can address the broader issues of avoiding distractions while driving. Thirty-seven states and the District of Columbia conducted a recent distracted driving communications campaign. But distracted driving communication programs will divert resources from other traffic safety communications activities.
- Help employers develop and implement distracted driving policies and programs. Many companies have established and implemented cell phone policies for their employees. Company policies can be a powerful influence on employees' driving. But they have not been evaluated.

Enforce existing cell phone and texting laws ... But enforcing cell phone or texting laws will divert resources from other traffic law enforcement activities.

States can and should take four steps that will help reduce distracted driving immediately and in the future.

- Continue to implement effective low-cost roadway distracted driving countermeasures such as edgeline and centerline rumble strips.
- Record distracted driving in crash reports to the extent possible, to assist in evaluating distracted driving laws and programs.
- Monitor the impact of existing hand-held cell phone bans prior to enacting new laws. States that have not already passed handheld bans should wait until more definitive research and data are available on these laws' effectiveness.
- Evaluate other distracted driving laws and programs. Evaluation will

Executive summary

provide the information states need on which countermeasures are effective and which are not.

What should others do to reduce distracted driving?

- Employers: Consider distracted driving policies and programs for their employees. Evaluate the effects of their distracted driving policies and programs on employee knowledge, behavior, crashes, and economic costs (injuries, lost time, etc.).
- Automobile industry: Continue to develop, test, and implement measures to manage driver workload and to warn drivers of risky situations.
- Federal government: Help states evaluate the effects of distracted driving programs. Continue tracking driver cell phone use and texting in the National Occupant Protection Use Survey (NOPUS). Work with states to improve data collection on driver distractions involved in crashes. Continue to develop and conduct national communications campaigns on distracted driving.