



Key Cell Phone Distracted Driving Research Studies

Effective prevention is based on science. The Council's focus on cell phone distracted driving -- and our recommendation to prohibit hands-free and handheld phone use while driving -- is based on the knowledge from research. We have compiled the studies below to help provide background on why this is such a serious issue.

Meta-Analyses & Literature Reviews

These papers compile the findings of many studies, which is convenient to get an overview of the issue:

Is a hands-free phone safer than a handheld phone?

Ishigami & Klein. (2009). *Journal of Safety Research*. 40; 157–164.

Analysis of the Literature: The Use of Mobile Phones While Driving

Brace, Young & Regan. (2007). Monash University Research Centre.

Cell phones and driving: review of research

McCart, Hellinga, Braitman. (2006). *Traffic Injury Prevention*. 7; 89-106.

A meta-analysis of driving performance and crash risk associated with the use of cellular telephones while driving

Caird, et al. (2005). Department of Psychology University of Calgary, Honeywell, Human Factors North. PROCEEDINGS of the Third International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design. 478-485.

The Impact of Cell Phone Conversations on Driving. A Meta-Analytic Approach

Horrey & Wickens. (2004). Technical Report. University of Illinois at Urbana-Champaign.

Effects of Cellular Telephones on Driving Behaviour and Crash Risk: Results of Meta Analysis

Caird, et al. (2004). CAA Foundation for Traffic Safety.

Crash Risk & Crash Data

Young Drivers Report the Highest Level of Phone Involvement in Crash or Near-Crash Incidences

National Highway Traffic Safety Administration. (2012). Traffic Safety Facts Research Note.

2010 Motor Vehicle Crashes: Overview

National Highway Traffic Safety Administration. (2011). Traffic Safety Facts Research Note. *NOTE: Beginning with 2010 data, NHTSA is using a new measure of distracted driving crashes. The new definition is more narrow, intended to focus on distractions most likely to affect crash involvement. Thus 2010 distraction numbers cannot be compared to previous years.*

Distracted Driving 2009

National Highway Traffic Safety Administration. (2010). Traffic Safety Facts Research Note.

Trends in Fatalities From Distracted Driving in the United States, 1999 to 2008

Wilson. (2010). *American Journal of Public Health*. 100(11):2213-2219.

Role of mobile phones in motor vehicle crashes resulting in hospital attendance: a case-crossover study

McEvoy, et al. (2005). *BMJ*. 331(7514):428

[The role of driver distraction in traffic crashes](#)

Stutts, et al. (2001). AAA Foundation for Traffic Safety

[Cellular Phone Use While Driving: Risks and Benefits](#)

Lissy, et al. (2000). Harvard Center for Risk Analysis. Phase 1 Report.

[Crashes Induced by Driver Information Systems and What Can Be Done to Reduce Them](#)

Green. (2000). University of Michigan Transportation Research Institute.

[Association between cellular telephone calls and motor vehicle collisions](#)

Redelmeier & Tibshirani. (1997). New England Journal of Medicine, 336; 453-458.

Cognitive Distraction

This NSC white paper includes an extensive bibliography of research studies about cognitive distraction and phone conversation while driving:

[Understanding the distracted brain: Why driving while using hands-free phones is risky behavior](#)

White paper. (2010). National Safety Council.

[Measuring Cognitive Distraction in the Automobile.](#)

AAA Foundation for Traffic Safety. June 2013.

Text Messaging and Voice-Activated Texting

Research listed here about manual texting and speech-to-text systems:

[New research reveals that voice-activated in-car technologies dangerously undermine driver attention.](#)

AAA Foundation for Traffic Safety. 2013.

[Voice-to-Text Driver Distraction Study. New research findings suggest that voice-to-text applications offer no real safety advantage over manual texting.](#)

Texas A&M Transportation Institute. 2013.

[The Effect of Text Messaging on Driver Behavior: A Simulator Study](#)

Reed & Robbins. (2008). Published Project Report PPR 367. Transport Research Laboratory.

[The effects of text messaging on young novice driver performance](#)

Hosking, Young & Regan. (2006). Report No. 246. Monash University Accident Research Centre.

Cell Phones Compared to Alcohol Impaired Driving

This study examined cell phone use while driving as well as alcohol-impaired driving:

[Fatal Distraction? A Comparison of the Cell Phone Driver and the Drunk Driver](#)

Strayer, Drews, Crouch. (2006). Human Factors. 48(2);381-391.

Cell Phone Conversation vs Passenger Conversation

People often ask how cell phone conversation differs from talking with passengers. Here is information about the difference:

[Passenger and Cell Phone Conversations in Simulated Driving](#)

Drews, Pasupathi, Strayer. (2008). Journal of Experimental Psychology: Applied. 14(2): 392-400.

Driver Cell Phone Use Rates

These studies estimate how many drivers are using cell phones, through direct observation of drivers in traffic, self-report surveys or other methods:

[Driver Electronic Device Use in 2012](#)

National Highway Traffic Safety Administration. (2014). Traffic Safety Facts Research Note.

[Driver Electronic Device Use in 2011](#)

National Highway Traffic Safety Administration. (2013). Traffic Safety Facts Research Note.

[Driver Electronic Device Use in 2010](#)

National Highway Traffic Safety Administration. (2011). Traffic Safety Facts Research Note.

Evaluations of Laws & Enforcement

A message from NSC regarding evaluation studies of state legislation:

[NSC Applauds IIHS Efforts to Understand Effects of Cell Phone Use Legislation - New Findings Support Need for Total Ban](#)

These studies examine the effectiveness of laws and enforcement:

[High-Visibility Enforcement Demonstration Programs in Connecticut and New York Reduce Hand-Held Phone Use](#)

National Highway Traffic Safety Administration. (2010). Traffic Safety Facts Research Note.

[Phoning While Driving](#)

Insurance Institute for Highway Safety. (2010). Status Report.

[Phoning While Driving](#)

Insurance Institute for Highway Safety. (2009). Status Report.

[Longer-term effects of Washington, DC, law on drivers hand-held cell phone use](#)

McCartt & Hellinga. (2007). Traffic Injury Prevention. 8(2):199-204.

[Effects of Washington, D.C. law on drivers hand-held cell phone use](#)

McCartt, Hellinga, Geary. (2006). Traffic Injury Prevention. 7(1):1-5.

[Longer term effects of New York State's law on drivers handheld cell phone use](#)

McCartt & Geary. (2004). Injury Prevention. 10(1):11-5.

[Drivers use of handheld cell phones before and after New York State's cell phone law](#)

McCartt, Braver, Geary. (2003). Prevention Medicine. 36(5):629-35.

Teens & Young Drivers

Studies that focused on teens, novice drivers and young adults:

[Young Drivers Report the Highest Level of Phone Involvement in Crash or Near-Crash Incidences](#) National Highway Traffic Safety Administration. (2012). Traffic Safety Facts Research Note.

[Distracted Driving Among Newly Licensed Teen Drivers](#) AAA Foundation for Traffic Safety. (2012).

[Teens and Distracted Driving: Texting, talking and other uses of the cell phone behind the wheel](#)

Madden & Lenhart. (2009). Pew Internet & American Life Project.

Public Opinion Surveys

Surveys have measured public support for hands-free, handheld and texting bans. Surveys also offer insight into driver attitudes, beliefs and behaviors:

2013 Traffic Safety Culture Index

AAA Foundation for Traffic Safety, 2013.

National Distracted Driving Telephone Survey Finds Most Drivers Answer the Call, Hold the Phone, and Continue to Drive

National Highway Traffic Safety Administration. (2011). Traffic Tech.

National Phone Survey on Distracted Driving Attitudes and Behaviors

Tison, Chaudhary & Cosgrove. (2011). National Highway Traffic Safety Administration.

More Key Studies & Reports

National Phone Survey on Distracted Driving Attitudes and Behaviors

Tison, Chaudhary & ; Cosgrove. (2011). National Highway Traffic Safety Administration

National Distracted Driving Telephone Survey Finds Most Drivers Answer the Call, Hold the Phone, and Continue to Drive

National Highway Traffic Safety Administration. (2011). Traffic Tech.

Distracted Driving and Driver, Roadway and Environmental Factors

Singh. National Highway Traffic Safety Administration. (2010). Technical Report. DOT HS 811 380.

Cell Phones and Driving: Research Update

AAA Foundation for Traffic Safety. (2008).

The Impact of Driver Inattention on Near-Crash/Crash Risk: An Analysis Using the 100-Car Naturalistic Driving Study Data

Klauer, et al. (2006). National Highway Traffic Safety Administration. Technical Report. DOT HS 810 594.

Effects of Simulator Practice and Real-World Experience on Cell-Phone–Related Driver Distraction

Cooper & Strayer. (2008). Human Factors. 50(6): 893–902.

Mobile telephone simulator study

Kircher, et al. (2004). Swedish National Road and Transport Research Institute.

NHTSA Status Summary: Using Wireless Communication Devices While Driving

National Highway Traffic Safety Administration. (2003). Obtained via Freedom of Information Act and published by the New York Times.

Distractions in Everyday Driving

Stutts, et al. (2003). University of North Carolina at Chapel Hill Highway Safety Research Center, AAA Foundation for Traffic Safety.

The Use of Mobile Phones in Road Traffic, SNRA inquiry into the use of mobile phones and other IT systems while driving

Patten, et al. (2003). Swedish National Road Administration.

Predicting the effects of in-car interface use on driver performance: an integrated model approach

Salvucci. (2001). International Journal of Human-Computer Studies. 55, 85:107.

Cell Phone Use

Monteressi. ExxonMobil Biomedical Sciences Inc.