



# **Driven to Distraction**

# How Employer Policies Can Reduce Risks of Cell Phones & Driving



# Cell Phones & Driving: Employer Policies

- Why is cell phone use while driving a problem?
- What are the risks?
- How do cell phones compare to other driver distractions?
- What are the implications for employers?
- What are solutions available to employers?



# **Motor Vehicle Crash Impact**

- About 40,000 deaths annually in the U.S.
- No. 1 cause of death for ages 1 to 35
- No. 1 cause of workplace death
- On-the-job crash costs employer \$24,000+
- On-the-job injury crash costs employer \$125,000+
- Plus ongoing liability, insurance, productivity, absenteeism costs

Source: NHTSA



# **Distracted Driving & Crashes**

 Driver distraction is involved in: 16% of fatal crashes 22% of injury crashes

Source: NHTSA



# Wireless Devices: Novelty to Common <15 Years

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Millions of

**Subscribers** 

Millions US

Population

Penetration

Wireless

Device

	33.8	109.5	207.9	270.3	285.6
	262.8	281.4	288.4	303.8	307
	13%	38%	69%	87%	91%
1	1995	2000	2005	2008	2009

Source: CTIA & U.S. Census



# **Texting Trend: Novelty to Common?**

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Millions of Texts Sent Monthly	N/A	14	9,800	110,000
	1995	2000	2005	2008*

110.4 billion text messages sent monthly in 2008

- What will 2009 look like? 2010?
  - Introduction of Twitter

Source: Nationwide Insurance & CTIA



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# Millions of People Are Talking While Driving

- 12% of drivers at any point during the day are on the phone
- 81% of drivers admit to talking on cell phones while driving:
  - 74% of Boomers
  - 88% of Gen X
  - 89% of Gen Y
  - 62% of Teen Drivers

Source: NHTSA & Nationwide Insurance



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Millions Are Texting & Emailing While Driving

- 18% of drivers admit to text messaging while driving:
  - 4% of Boomers
  - 15% of Gen X
  - 39% of Gen Y
  - 36% of Teen Drivers

Source: Nationwide Insurance & CTIA



# Cell Phones Are Driving Culture Change

"A century ago, Model T's brought motoring to an emerging middle class.
A half century ago, teenagers cuddled in convertibles at drive-in movies.
A new generation of drivers sees cars as an extension of their plugged-in lives, with iPods, DVD players and other gadgets."

USA Today, 2-17-2009



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# Cell Phones Are Driving Culture Change

- Cell phones today include:
  - Talk, Text, Email, Internet, GPS, Wi-Fi, Mobile TV, Gaming
- Projected to replace computer as primary internet portal



# **How Cell Phones Distract**

- Visual Eyes on road
- Mechanical Hands on wheel
- Cognitive *Mind on driving*
- Most public focus is on eyes & hands handheld devices
- Hands-free seen as a solution
- But cognitive distraction still exists with hands-free phones
- Why is this a risk?



# What Is The Risk?

## Crashes

- Driver distraction was a factor in 16% of fatal crashes and 22% of injury crashes\*
- Talking and texting on a cell phone while driving is a factor in 28% - or a minimum of 1.6 million – crashes each year\*\*

\*Source: NHTSA \*\*Source: NSC Attributable Risk Estimate, 2009

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# What Is The Risk?

## Injury crashes

- Cell phone users are 4x more likely to be in a crash
- Both handheld & hands-free
- Study looked at cell phone billing records of emergency dept patients involved in crashes

Source: IIHS



# What Is The Risk?

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# Property damage crashes

- Cell phone users are 4x more likely to be in a crash
- Both handheld & hands-free
- Study looked at cell phone billing records



# What Is The Risk?

- Traffic Violations
- Observations of 1,700+ drivers
- 75% of drivers using cell phones committed traffic violation
- 25% of drivers not using cell phone committed violation
- Driver errors can lead to crash

Source: VTTI

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# What Is The Risk?

## • Slower reaction time

- Simulator study compared drivers using cell phones and drivers impaired by alcohol
- Cell phone users had slower reaction times than drivers with .08 BAC
- Reaction to vehicles braking in front of them slower
- True for both handheld and hands-free phones

Source: Univ of Utah



# What Is The Risk?

- "Look" but don't "see"
- Drivers fail to see what's around them even though they're looking
- Will look at objects but not remember them
- Drivers missed traffic signals, signs, exit ramps
- Also called inattention blindness

Source: Univ of Utah



# What Is The Risk?

# Cognitive impairment

 MRI study took pictures of the brain while drivers listened to sentences and drove on a simulator

• Literally see the results ...

Source: Carnegie-Mellon



# **Our Brains on Cell Phones**

The parietal activation associated with driving decreases substantially (by 37%) with sentence listening.

### **Driving Alone**



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### Driving with Sentence Listening





# What Is The Risk?

### Substantial research documented in 3 meta-analysis studies

- 23 studies reported substantial negative effects of cell phone use on driving. (Horrey & Wickens, 2006)
- 33 studies found effects in reaction time, speed, headway and lateral lane position, for both hands-free and handheld phones. (Caird, et al., 2008)
- 10 studies show impaired driving performance for both handheld and hands-free phones. (Ishigami & Klein, 2009)



# **Message from Wireless Industry**

Scientific research on the subject of wireless phone use and driving has been conducted worldwide for several years. According to the National Highway Traffic Safety Administration (NHTSA), the available research indicates that using a wireless phone while driving degrades a driver's performance, whether it is a hands-free or handheld wireless phone.

For your well being and the well being of those around you, you should consider turning your phone off and allowing calls to go to voice mail while you are driving.

- Verizon website, Sept 2009



# Cell Phones vs. Other Distractions

• How do cell phones compare to risk of other distractions?



# Cell Phones vs. Other Distractions

- Cell phone conversations are higher risk than listening to radio, eating and drinking
- Certain distractions have higher crash risks but are engaged in less frequently
  - Such as reading, turning around in the seat
- Talking on cell phones may not be the riskiest thing we do in our cars, but it is involved in the most driver distraction crashes



# Cell Phones vs. Passenger Conversations

- Passengers share awareness of driving situation, a safety benefit
- Front seat passenger reduces risk of crash to 38% of that of a cell phone conversation
- Adults with passengers have lower crash rates than adults without passengers
  - Not true for novice teen drivers

Source: University of Utah



# **Cell Phone Crash Data**

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- Difficult to collect crash data
  - Police crash forms not all updated to include cell phones
  - Driver self-report is unreliable
- We have a plethora of evidence from the research
- We don't have crash statistics
- An absence of statistics does not prove or even indicate the absence of a problem



# Even When People Know The Risks

- Voluntary compliance is very difficult
- Driver behavior doesn't always follow knowledge
- Most people believe they're better than average drivers – "the other driver is the problem"
- Driving without crash reinforces risky behavior
- We're compelled to answer the phone, emails, tweets



# Even When People Know The Risks

- Voluntary compliance is very difficult
- 80% of motorists rate distracted driving as very serious threat to their safety
- But those who admitted to driving distracted knew they put themselves in danger
- Many who admitted talking, texting & emailing while driving knew crashing was much more likely
- 2 out of 3 drivers mistakenly believe talking on a hands-free cell phone is safer than handheld

Source: AAA Foundation for Traffic Safety surveys



# **Solutions**

- Driver Training and Corporate Training and Education
- State Laws, Municipal Ordinances and Enforcement
- Engineering and Technology
- Employer Policies



# Implications for Employers: Increased Risk of Injury

- Allowing employees to conduct business on cell phones while driving is to allow a 4x increase in crash risk
- Would factory or service workers be allowed to do their jobs in ways that were 4x more likely to result in injury?
- Even higher risks are associated with text messaging, reading and answering email while driving



# Implications for Employers: Increased Liability

- Jury & judge awards, out-of-court settlements:
  - **\$21.6 million** Ohio technology company
  - **\$18 million** Alabama trucking company
  - \$16.1 million Arkansas lumber distributor
  - **\$5.2 million** Georgia paper company
  - \$5 million Georgia construction company
  - **\$2 million** Virginia law firm
  - **\$1.75 million** Florida car dealership
  - \$1.5 million State of Hawaii
  - **\$500,000** Pennsylvania brokerage firm

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# Implications for Employers: Increased Liability

- Crash scenarios ran the gamut:
  - Hands-free and handheld
  - During work hours and outside work hours
  - Driving to/from work appointment and driving for personal reasons
  - Business and personal vehicles
  - Business and personal conversations
  - Employer-provided and employee-owned phones



# What Can Employers Do?

- Personal leadership stop using cell phones when driving & change your voice mail greeting
- Educate employees about the issue help them develop new social norms with friends, spouses, cab drivers, etc.
- Implement a cell phone driving ban in your company and enforce it
- Monitor compliance, effectiveness and impact on crash reductions, productivity and customer service
- Support legislation and enforcement



# What Can Employers Do?

- Safety, human resource and employment law experts recommend employer policies with:
  - Clear policy language
  - Documented training and employee communication
  - Requirement that employees read and sign the policy
  - Disciplinary action with firm enforcement
- Although not a shield from a lawsuit, strict enforced policies can help reduce risk of crashes, injury and costly lawsuit or settlements



# What About Productivity?

- Survey of employees one year after corporate cell phone driving ban
  - 97% agreed that talking on a cell phone impacts a person's ability to drive safely
  - 95% said they did not experience a decrease in productivity as a result of the ban during work hours
  - 83% said they had reduced or quit using wireless devices while driving outside of work hours

Source: AMEC



# What About Productivity?

# Survey of NSC members

- Over 70% of employers saw increase in productivity or no change following cell phone policy.
- Over 65% observed increases or no change on employee morale based on the policy enactment.
- Only seven companies (1.5%) reported a decrease in employee productivity.

Source: NSC

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# **Employers With Policies**

# Join the company of:

- National Safety Council
- ExxonMobil
- Petrobas
- DuPont
- PotashCorp
- FirstGroup
- AMEC
- AstraZeneca US
- National Transportation Safety Board

469 NSC member survey respondents with policies

And many more:

- Private Corporations
- Public Institutions
- Education
- Municipalities
- Mass Transit



# **Employer Policy & State Law**

- Should at minimum enforce state and municipal law
- But no state law is optimum
- Optimum state law would:
  - Ban all handheld & hands-free use
  - Talking & texting
  - For all drivers
- Recommend that employers go beyond state law requirements to truly reduce risk











Jason Norling – 38-year-old Harris County (Houston) deputy killed by distracted cell phone driver. Oct 2007, TX Lauren Mulkey – 17-year-old killed when driver ran red light while on cell phone. June 2007, UT Matt Wilhelm – 25-year-old killed while riding his bike by a driver on a cell phone. Sept 2006, IL



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Joe Teater – 12-year-old killed when a driver ran a red light while on a cell phone. Jan 2004, MI



Bailey Goodman, Meredith McClure, Hannah Congdon, Sara Monnat, Katie Shirley –

All just graduated from high school. Killed when their car swerved in front of a tractor-trailer. Records show the driver's phone was texting at time of crash. June 2007, NY





*Frances Schee* – 13-year-old killed when a truck driver distracted by a cell phone rear-ended her school bus. Eight others injured. Sept 2008, FL



Jay & Jean Good – Killed when hit by a tractor-trailer that swerved to avoid a minivan that ran a light. The minivan driver was talking on a cell phone. May 2008, PA



*Erica Forney* – 9-year-old killed while riding her bicycle home from school by a 36-year old woman talking on a cell phone. Nov 2007, CO





Jordan Cibley – 18-year-old killed after losing control of his vehicle while talking with his father who owned a chain of cell phone stores. May 2007, MA



Linda Doyle – 61-year-old killed when a 20-year-old driver ran a red light while talking on a cell phone. Sept 2008, OK





### 25 people killed

When a commuter train engineer ignored a stop signal and hit a freight train.

Engineer was texting 22 seconds before crash. Sept 2008, CA

