Cell Phone Use & Driving
Impact on Employee Safety, Productivity and Employer Liability
Motor vehicle crashes

• 1 million people have died in motor vehicle crashes in the last 25 years
• 35,000 deaths each year in the U.S.
• Leading cause of on and off-the-job unintentional deaths in the U.S.
• Leading cause of death for people 5- to 35-years-old
• Cost to society = $100 billion per year
• Society appears to have grown complacent, accepting these deaths and injuries
• Safety engineering has made significant advances
Motor vehicle crashes

Vehicle maintenance factors
- Definite cause 10% of the time
- Probable cause 13% of the time

Environmental factors
- Definite cause 20% of the time
- Probable cause 33% of the time

Human error
- Definite cause 70% of the time
- Probable cause 93% of the time

Source: Auto Alliance
Driving distractions

The Science of Distraction

**Visual:** eyes on road
**Mechanical:** hands on wheel
**Cognitive:** mind on driving

- Much more than “eyes on the road, hands on the wheel”
- Visual and mechanical distractions are short lived - cognitive distractions last much longer
Selective attention / switching

• When brains are overloaded by two cognitive tasks, people switch attention (without recognizing it)
  – Make one task “primary” and the other “secondary”

• Cognitive attention to driving can become secondary to a phone conversation

• When driving is a secondary task for the brain, driving becomes impaired
  – Impairment takes several forms, including inattention blindness and tunnel vision
“Tunnel Vision”
# Crashes and cell phones

## Risk – how risky is the distraction

<table>
<thead>
<tr>
<th>Activity</th>
<th>Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>3.4x</td>
</tr>
<tr>
<td>Reaching for a moving object</td>
<td>8.8x</td>
</tr>
<tr>
<td>Turning around in a seat</td>
<td>8.8x</td>
</tr>
<tr>
<td>Talking on a cell phone</td>
<td>4x</td>
</tr>
<tr>
<td>Texting</td>
<td>8x</td>
</tr>
</tbody>
</table>

## Prevalence – how often is it happening

<table>
<thead>
<tr>
<th>Activity</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manipulating a wireless device</td>
<td>1.5%</td>
</tr>
<tr>
<td>Talking on a cell phone</td>
<td>9%</td>
</tr>
</tbody>
</table>
Crashes and cell phones (2012)

- Minimum of 281,000 crashes
  - 5% of all crashes, involve texting
- 1.2 million crashes per year
  - 21% of all crashes, involve cell phone conversations

26% of all crashes involve cell phone use
What we know about cell phone use and driving

*Role of Mobile Phones in Motor Vehicle Crashes Resulting in Hospital Attendance*

Suzanne P McEvoy, Mark R Stevenson, Anne T McCartt, et al - 2004

- Likelihood of crashing increases by 4x
- Risk was raised irrespective of whether or not a hands-free device was used
Hands-free and crash risk

Hands free devices do not reduce crash risk:

- National Safety Council
- National Transportation Safety Board
- World Health Organization
- Insurance Institute for Highway Safety
- Governors Highway Safety Association

- 30+ studies reported substantial negative effects of cell phone use on driving for hands-free and handheld phones
- Similar effects in reaction time, speed, headway and lateral lane position, for hands-free and handheld phones
What we know about cell phone use while driving

*Comparison of the Cell Driver and Drunk Driver*

*Strayer, Drews, et al, University of Utah - 2004*

- No difference between handheld and hands-free
- Cell phone distracted drivers have slower reaction times and were more likely to crash than drivers with a .08 BAC
What we know about cell phone distraction

A Decrease in Brain Activation Associated With Driving

*Carnegie Mellon University, Center for Cognitive Brain Imaging - 2008*
Result

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

Misperceptions

It’s no more dangerous than talking to a passenger

- A passenger in a vehicle is aware of the driving situation and can even serve as an additional look-out
- The phone carries a certain obligation of immediacy

There isn't enough evidence to prove that using a cell phone while driving causes crashes

- Difficult to collect crash data
- Much evidence, few statistics
- An absence of statistics does not prove or even indicate the absence of a problem
Putting it all together

Motor vehicle crashes are the leading cause of death for people 5 to 35 years old

- Human error causes the vast majority of crashes
- Cell phone drivers four times more likely to be involved in a personal injury crash
- Reaction times slower than .08 BAC
- Hands-free as dangerous as handheld
- Inattention blindness
- 37% reduction in spatial processing in the part of the brain used for the task of driving
- Cell phone use involved in 26% of all crashes

Voluntary compliance is difficult
National Safety Council Calls for Nationwide Ban on Cell Phone Use While Driving

Itasca, Ill. – The National Safety Council today is calling on motorists to stop using cell phones and messaging devices while driving, and is urging businesses to enact policies prohibiting it and governors and legislators in all 50 states and the District of Columbia to pass laws banning the behavior.
Sample cell phone policy

Company employees may not use cellular telephones or mobile electronic devices while operating a motor vehicle under any of the following situations, regardless of whether a hands-free device is used:

- When employee is operating a vehicle owned, leased or rented by the Company.
- When the employee is operating a personal motor vehicle in connection with Company business.
- When the motor vehicle is on Company property.
- When the cellular telephone or mobile electronic device is company owned or leased.
- When the employee is using the cellular telephone or mobile electronic device to conduct Company business.
Companies with policies

- Exxon/Mobil
- DuPont
- Halliburton
- Shell
- Chevron
- BP
- Enbridge
- AstraZeneca
- Spectra Energy
- CA Office of Traffic Safety
- Abbott
- EnCana
- Cargill
- CSX Intermodal
- Schneider National
- Sysco Corporation
- Time Warner Cable
- Potash
- Owens Corning
- NTSB

Just a sample - no national database of companies with policies
Employer liability

$21.6 million: A stay-at-home dad received the award for the violent wreck that killed his wife, after a jury found a driver negligent for either talking on her cell phone or some other distraction.

$21 million - A soft drink beverage truck driver was using a hands-free headset, in compliance with a handheld company ban, when she struck another vehicle and injured the driver. A jury awarded $21 million in damages to the injured driver.

$20.9 million: Dykes Industries of Little Rock, Ark., lost a personal injury suit in which its employee was using a cell phone when the crash occurred.

$18 million: Holmes Transport, of Muscle Shoals, Ala., was ordered to pay the damages by a U.S. District Judge to Mark Tiburzi who was left unable to walk or talk after a crash caused by one of their drivers distracted by a cell phone.

$5.2 million: International Paper employee Vanessa McGrogan was using her company-supplied cell phone when she rear-ended a vehicle driven by Debra Ford.

$2.5 million: State of Hawaii agreed to pay as its share of liability in a crash involving a state employee who was talking on her cell phone when she hit a tourist.

$1.5 million: City of Palo Alto has agreed to pay the victim of a 2006 vehicle crash involving a city worker who was using his cell phone while driving.
Company cell phone policies

Survey of NSC member companies – August 2009

- 2,004 respondents
- 469 (23.3%) had bans that included both hands-free and handheld wireless communication devices
- 36.1% of NSC members w/o policies have plans in the next 12 months to create policies
- Only seven companies (1.5%) with policies reported a decrease in employee productivity
- 46 companies (10%) reported a productivity increase
Company cell phone policies

Why no decrease in productivity?

• Most calls are not as “business critical” as assumed
• Every employee and every company “adapts” (e.g. trip planning)
• Employees less stressed – they make better decisions
• Drivers no longer take time from non-driving staff
CEO Selling Proposition

1. Employee cell phone use while driving is a significant and growing safety threat to our employees and the driving public.

2. It has also become a significant financial risk and liability.

3. If a total ban policy is properly implemented and supported, there will not be a negative effect on productivity, customer service or employee morale.
Cell Phone Policy Kit

- Executive communication
- Employee education campaign
- Campaign rollout plan
- Sample policy
Technology: may be best solution

- Signal jamming
  - Jamming device in vehicle
  - Limited geographic reach
  - Currently illegal
- Smartphone app without vehicle integration
  - Uses phone’s GPS to trigger “driving condition”
  - Sends calls to VM, stores texts and emails
- Smartphone app with vehicle integration
  - Sensor plugs in to vehicle OBD port
  - Communicates “driving” to phone via Bluetooth
- Wireless network solution
  - “Thin client” on smart phone signals network of “driving condition”
  - Network applies call management tools
Public support

Quinnipiac University
• 2424 US Voters
• November 2010, +/- .02
• By a 63% – 34% margin, American voters support a federal ban on cell phone use while driving, even while using a "hands-free" device

Nationwide Insurance “On Your Side Survey”
• 1008 US drivers
• August 2009, +/- .03
• 80% support ban on texting or emailing
• 57% support a ban on all cell phone use while driving
Public support

According to the National Highway Traffic Safety Administration (NHTSA), current scientific research indicates that using a wireless phone while driving degrades a driver’s performance, whether with a hands-free or hand-held wireless phone. NHTSA advises that the safest course of action is to refrain from using a wireless phone while driving.

Consider turning your phone off and allowing calls to go to voicemail while driving—for your safety and that of those around you.

-Verizon website
(May 2013)
Takeaways

• We need full attention for the task of driving - cognitive distraction is real - Multitasking is a myth
• Hands-free is not risk free
• Risk exposure is what makes cell phone use the biggest threat
What you can do

• Personal example – stop using cell phone when driving (change no answer greeting)
• Don’t talk with people who call you while they are driving
• Educate employees, drivers, parents, friends and family
• Implement cell phone driving bans
• Support legislation and enforcement
**Erica Forney** – Nine year old killed by a cell phone driver while riding her bicycle home from school. (November 2008, CO)

**Jay & Jean Good** – Killed when hit by a tractor-trailer that swerved to avoid a minivan that ran a light, 18-year-old minivan driver talking on a cell phone. (May 2008, PA)
Margay Schee – 13 year old killed when her school bus was rear ended by a big-rig driver distracted by a cell phone. Eight others injured. (September 2008, FL)

“Frances "Margay" Schee was a wonderful and beautiful child, Margay only knew friends in her life, if you knew Margay, then you knew she was your friend.” – The Schee Family

Heather Hurd – Killed on her way to a meeting with a Disney wedding planner when a company truck driver, texting with his employer, rear ended her car and eight others while stopped at a red light.. (January 2008, FL)

“Because of distracted driving and a company insisting that their driver stay in touch with them at all times, I will never dance that special father-daughter dance at a wedding reception.” – Russell Hurd
Grand Rapids, Michigan
January 19, 2004
12 year old killed by cell phone distracted driver - January 2004
Joe Teater  4/12/91 – 1/20/04
Thank you!